The Social Norms of Suicidal and Self-harming Behaviours

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Doctor of Philosophy
October 2014

Author's Declaration

This thesis is the result of the author's original research. It has been composed by the author and has not been previously submitted for examination which has led to the award of a degree.

Signed:

Date:

Acknowledgements

I would firstly like to acknowledge all of the university students and high-school pupils who participated in my studies; without whom of course, there would be no research. I am also extremely grateful to the school staff who assisted in the organisation of my school data collection, and to the university departments who allowed me access to their students.

I would like to express enormous gratitude to my primary supervisor, Dr Susan Rasmussen, who provided me with excellent supervision, advice and assistance throughout my doctorate, and who on more than one occasion offered much-needed perspective and rationality. Susan invariably displayed more faith in me than I had in myself, and I would not have made it to the end without her belief and encouragement.

I would also like to thank my second supervisor, Dr John McAlaney, who frequently provided such useful support and advice, and without whom, I would never even have made it to Strathclyde. His knowledge and expertise of social norms (and statistics!) was invaluable, and his generosity with his time was greatly appreciated.

Finally, I would like to thank those who contributed to this work without ever having written or read a word. I simply would not have completed this doctorate without the continued support of my Mum and Dad from across the miles, regular celebrations and sorrow-drowning with my wise and beautiful Blooms, and my wonderful Andy's enduring patience, ceaseless encouragement, and insightful contributions to my research ("*The volitionals model!*").

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Quigley, J., Rasmussen, R. & McAlaney, J. (2014). *The perceived social norms of suicidal and self-harming behaviours in Scottish adolescents*. Poster presentation at the University of Strathclyde Faculty of Health and Social Sciences Research Day, 30th April 2014.

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Abstract

Background and Aims

The current thesis explored whether the social norms approach might be applicable to suicidal and self-harming behaviours (SSHBs). A thorough literature review and three empirical studies were conducted. The review indicated that children's and adolescents' SSHBs appear to be related to SSHB in people they know, but the literature assumed accurate knowledge of others' behaviour, and individual behaviours and reference groups were not always well-defined.

Study 1

A social norms survey indicated that undergraduate students tend to believe that those close to them are less likely to engage in SSHBs than they reported doing, but that more distal groups are more likely to do so. Proximal groups were also perceived as less likely to approve of SSHBs. Perceived proximal group norms tended to predict reported norms directly, while perceived distal group norms tended to show negative associations with reported norms.

Study 2

Similar results were found in an adolescent social norms survey, with proximal groups perceived as less likely to engage in and approve of SSHBs, and distal groups perceived as more likely to do so. Conversely, close friends' norms were perceived similarly to distal group norms. Perceived norms again predicted reported norms, with close friends' norms showing particular importance.

Study 3

The final study used qualitative methods to explore the beliefs and experiences behind undergraduates' normative perceptions. A range of knowledge, experience, judgements, and perceived causes, motivations and outcomes of SSHBs were identified, and conceptualisation was complex and often contradictory. Social desirability appeared to impact reported attitudes.

Conclusions

Findings suggest that the social norms approach may well be applicable to SSHB, but in different ways to behaviours previously studied. Consideration of target population,

reference group and moral/ethical judgements of SSHB is imperative. Implications for the development of theory and directions for further research are discussed.

Chapter 1

Suicidal and Self-harming Behaviours

1.1 Introduction

Suicidal and self-harming behaviours (SSHBs) are a massive public health concern, with major social, psychological and economic consequences. Suicide is believed to be the tenth leading cause of death worldwide, constituting about 1.5% of the international disease burden (Hawton & Van Heeringen, 2009), and as such, the implementation of evidence-based prevention, intervention and postvention strategies has become a national and international priority (Hadlaczky, Wasserman, Hoven, Mandell & Wasserman, 2011). In particular, youth suicide poses a major concern, with suicide representing the second leading cause of death in 10-24 year-olds (World Health Organisation (WHO), 2014). Research efforts have historically employed a heavy focus on identifying risk and protective factors – both of which are numerous – in order that the appropriate issues are addressed, and the most at risk individuals, targeted, but the study of suicide has generally been pragmatic in its approach, and lacking in theoretical grounding. The design and evaluation of approaches aimed at reducing the damaging effects of suicide are widespread and multi-disciplinary, and it is widely believed that no single approach is likely to prove necessary and sufficient, to eradicate such a complex and multifaceted set of behaviours (e.g., Potter, Powell & Kachur, 1995). It might be argued however, that gaining a thorough understanding of the issues, contradictions, and nuances surrounding SSHBs, through theoretically guided research, is an important step in their reduction.

The current thesis aimed to present and begin to explore a potential novel approach to the reduction of SSHB, through the combination of two existing bodies of literature – namely, the social factors influencing SSHBs, and the social norms approach to reducing anti-social and health-damaging behaviours. As is discussed throughout, a large body of evidence exists demonstrating that SSHBs are highly susceptible to social influences, including societal factors, social support/isolation, and exposure to the SSHBs of others. Additionally, perceptions of the social norms of numerous health-damaging and anti-social behaviours have been evidenced to relate to individuals' own engagement in those behaviours, with interventions which reduce normative perceptions effectively reducing individual

engagement therein. The current thesis broadly aimed to investigate whether this approach might be applicable to SSHBs; that is, whether the perceived social norms of SSHBs relate to individuals' own engagement therein, and therefore whether ultimately, interventions based on the social norms approach might be efficacious in the reduction of SSHBs.

1.2 Definitions and Measurement

1.2.1 Suicide

There is no universally accepted definition of what constitutes *suicide*, which makes accurate measurement of suicide rates difficult, and which may render official statistics difficult to interpret. Several definitions have been proposed by researchers, but what might be considered a suicide death by a suicide researcher may differ from what might be considered as such by professionals in practice (e.g., O'Carroll, 1989). In the field of suicide research, suicide is generally conceived as a deliberate act in which an individual purposely ends their own life in an attempt to solve a perceived problem. For example, Shneidman (1985) states that "suicide is a conscious act of self-induced annihilation, best understood as a multidimensional malaise in a needful individual who defines an issue for which suicide is perceived as the best solution" (p22). A similar definition was posited by a group of coroners, medical statisticians and other public health professionals convened by the United States Centres for Disease Control to develop an Operational Criteria for the Determination of Suicide (OCDS - Rosenberg, Davidson, Smith, Berman, Buzbee, Gantner, Gay, Moore-Lewis, Mills & Murray, 1988). The OCDS definition states that suicide is "Death from injury, poisoning or suffocation where there is evidence (either explicit or implicit) that the injury was self-inflicted *and* that the decedent intended to kill himself/herself". Whilst seemingly useful and comprehensive, when faced with a potential suicide death, a coroner or medical examiner (or any other professional for that matter) will not necessarily have access to information regarding intent or conscious decision-making, rendering definitive determination of suicide based on the above definitions, in some cases impossible.

Suicide attempt is a similarly ambiguous term, but has been described as "a self-inflicted, potentially injurious behaviour with a non-fatal outcome for which there is evidence (either explicit or implicit) of intent to die" (Silverman, Berman, Sanddal, O'Carroll & Joiner, 2007, p273). Again though, this might be problematic in that although it might be clear that an individual was injured as a result of their own deliberate actions, "evidence" of an

intention to die may not always be available. O'Carroll, Berman, Maris, Moscicki, Tanney and Silverman (1996) argued that whilst it may constitute *suicide-related behaviour*, a given behaviour should only be considered a *suicidal act* if there is specific intent to die (see Table 1.1). Furthermore, O'Carroll et al. state that even if no death or injury results, an act which was carried out with even the slightest suicidal intent should be described as a suicidal act. Whilst injury resulting from an action may be plain to see, as described above, information regarding the intent behind it is often unavailable, rendering it difficult to accurately classify suicidal behaviours. Further, unlike a completed suicide which will undoubtedly come to the attention of the authorities on account of a death occurring, if a suicide attempt does not result in death, the incident may never be recorded. If serious injury does not result, the attempter may never even seek medical assistance, and the whole incident may be excluded from any kind of measurement whatsoever.

Currently, the UK coroners' definition of suicide (based on the ICD categorisation system), which can be applied to individuals from the age of 10 years, includes:

- Intentional self-harm (ICD-9 codes E950-959; ICD-10 codes X60-X84 plus Y87.0, which is for sequelae of intentional self-harm); and
- Events of undetermined intent (ICD-9 codes E980-989; ICD-10 codes Y10-Y34 plus Y87.2, which is for sequelae of events of undetermined intent).

This definition is potentially problematic in that it includes events for which intention is unknown and therefore might over-classify non-suicide deaths as suicides, and it may result in under-classification if a suicide death appears unintentional but was in fact intentional. Further, the literature suggests that suicide has been reported in children as young as 5 years old (Bridge, Goldstein & Brent, 2006), so limiting the classification of suicide to those over 10 years of age may result in further under-reporting (although some researchers argue that children below this age have a limited understanding of death, such that their suicide may differ conceptually from that of an older individual; e.g., Cuddy, Casey & Orvaschel, 1997). In addition to difficulties inherent to definitions and classification, social, cultural or environmental factors might further impact upon the determination of a death as suicide, in practice. For example, religious beliefs or pressure from the deceased's family or the community may reduce the likelihood of a suicide being determined, while a recent spate of suicide deaths using a similar method may increase the likelihood of a non-suicide death also being classified as a suicide (O'Connor & Sheehy, 2000).

In Scotland, official criteria for the determination of a death as a suicide were amended in 2011, in order to maintain consistency with updated WHO definitions (e.g., amendments to classification of drug-related deaths). Aside from short-term difficulties in suicide classification, this change may exacerbate the problem of accurate monitoring in terms of comparing rates over time, as recent figures may not be comparable to those previously recorded. For example, the General Register Office for Scotland (GROS) estimate that 117 more deaths were classified as suicide in 2011 (post-amendments) than would have been using the old criteria, a detail which might result in inaccurate interpretations of trends. In addition, different reporting processes and definitions, as well as diverse social and religious attitudes, make international comparison of suicide rates difficult. For example, reluctance to record deaths as suicide in cultures where suicide is considered "sinful" may result in under-representation of the problem relative to other cultures (although evidence acquired through research into immigrant suicides suggests that patterns reported internationally are reasonably accurate; e.g., Clarke-Finnegan & Fahy, 1983).

1.2.2 Self-harm

The WHO defines self-harm as: "An act with non-fatal outcome, in which an individual deliberately initiates a non-habitual behaviour that, without intervention from others, will cause self-harm, or deliberately ingests a substance in excess of the prescribed or generally recognised therapeutic dosage, and which is aimed at realising changes which the subject desired via the actual or expected physical consequences" (Platt, Bille-Brahe, Kerkhof, Schmidtke, Bjerke et al., 1992). As with suicidal behaviour though, in practice, definitions of self-harm vary widely, and as such, measurement may lack consistency across research teams or professional teams in practice. In addition to diversity across definitions, an injury's classification as an act of self-harm may further depend on cultural or attitudinal factors. Due to the stigma and blame associated with self-harm (Urquhart Law, Rostill-Brookes & Goodman, 2009), individuals may be reluctant to seek help or admit that they caused their injuries themselves. Furthermore, evidence suggests that staff involved in the medical care of those who self-harm – for example accident and emergency room staff – often harbour negative attitudes towards individuals who self-harm (McAllister, Creedy, Moyle & Farrugia, 2002) and may lack an understanding of related issues and risks (Crawford, Geraghty, Street & Simonoff, 2003). This may further render individuals reluctant to admit to staff that they caused their own injuries, or influence how staff record/report an episode of self-harm. In addition, an act of self-harm which neither results in death nor serious injury, and which thus requires no intervention from official sources, is

unlikely to be captured by any related statistics. These problems with disclosure and difficulties with measurement mean that rates of self-harm are likely to be far higher than official estimates.

1.2.3 Distinguishing between suicidal and non-suicidal behaviour

A particular problem relating to definitions and measurement within the literature and in practice, concerns the distinction between non-fatal suicide attempts and non-suicidal self-harm. Apart from as an attempt to take their own life, individuals reportedly engage in non-suicidal self-harm for a variety of reasons, including affect regulation, self-punishment, elicitation of help (Scoliers, Portzky, Madge, Hewitt, Hawton, de Wilde et al., 2008), to escape a terrible state of mind (Nock, 2009), in order to feel in control and even for suicide avoidance (Laye-Gindhu & Schonert-Reichl, 2005). It is debatable whether combining a group of behaviours with such divergent motivations into one category is useful in terms of prevention or intervention. On the other hand, many individuals report multiple motivations for self-injurious behaviour (Suvemoto, 1998), so attempting to distinguish between them may be futile. In their proposed nomenclature for suicidology, O'Carroll, Berman, Maris, Moscicki, Tanney and Silverman (1996) recommended a distinction between suicidal acts, which are characterised by an intention to die, and instrumental behaviour, which is enacted with the intention of achieving some other goal, in order to enable consistency across physicians and researchers. A recent update to O'Carroll et al.'s (1996) work further acknowledges that sometimes, intention is simply unknown (Silverman, Berman, Sanddal, O'Carroll & Joiner, 2007). Table 1.1 illustrates the revised nomenclature. For researchers and practitioners interested in the prevention of SSHB, the motivations with which an individual engages in a relevant behaviour should arguably be considered, as they may provide routes through which prevention might be achieved, so such distinctions may well be useful. Other researchers however, have debated the utility of making distinctions based on suicidal intent (e.g., Kapur, Cooper, O'Connor & Hawton, 2013), particularly given the feelings of ambivalence towards death experienced by many of those who engage in suicidal behaviour (e.g., Dorpat, 1963; Henriques, Wenzel, Brown & Beck, 2005), and the substantial proportion of suicide attempters who experience relief (35.6%) or ambivalence (42.7%) at having survived (Henriques et al., 2005).

Although there are certain obvious differences between non-fatal self-harming behaviour and suicide (e.g., the occurrence of death in completed cases of the latter), self-harm is often examined alongside suicide, as the two are undoubtedly linked. In addition to the health

risks that engaging in self-harm may afford (e.g., poisoning, infection, scarring, internal complications, accidental death), those who engage in even a single episode of self-harm are at an increased risk of suicide (Hawton, Zahl & Weatherall, 2003). Self-harming adolescents are at a fourfold increased risk of suicide than the national average (Goldacre & Hawton, 1985) and individuals treated in hospital for self-harm are at an estimated 30 times greater risk of suicide within a year (Cooper, Kapur, Webb, Lawlor, Guthrie, Mackway-Jones & Appleby, 2005). A large proportion of individuals who engage in self-harm report at least one suicide attempt (Nock, Joiner, Gordon, Lloyd-Richardson & Prinstein, 2006), and in fact, self-harm is believed to be one of the strongest predictors of future suicide, as well as of repeat episodes of self-harm (Owens, Horrocks & House, 2002). Moreover, regardless of associations with further self-harm and future suicidality, self-harm has been shown to severely compromise life-expectancy and physical health in general (Bergen, Hawton, Waters, Ness, Cooper, Steeg & Kapur, 2012), and therefore represents a major public health concern in its own right. These features, in addition to the aforementioned difficulties with defining and measuring individual SSHBs, argue for the consideration of a spectrum of behaviours, as opposed to focusing on distinctions.

Whilst individual behaviours are focused upon where appropriate, suicidal and self-harming behaviours (SSHBs) *in general* are referred to throughout the current thesis, in an attempt to encompass all relevant behaviours. The WHO definition of self-harming behaviour is used (see section 1.2.2) and in accordance with Beck, Resnik and Lettieri's (1974) classification of suicidal behaviours, suicidal ideas or ideation, plans, threats and (non-fatal) suicide attempts are also incorporated under the umbrella term "suicidal behaviours". This broad definition was employed on account of there having been no previously published research on the topic which the current thesis explores. By encompassing the full range of suicide-related behaviours – regardless of motivation or suicidal intent – it was hoped that it would be possible to gain an overall understanding of the topic in question, without risking the exclusion of any potentially important (behavioural) variables. To reiterate, a broad, inclusive definition of behaviours was used for the current thesis, encompassing any and all suicide- or self-harm-related behaviours, thoughts or attempts, regardless of outcome or suicidal intent. Within individual studies, participants' were encouraged to use their own subjective definitions, in order that the behaviours relevant to them were captured.

Table 1.1: Nomenclature for suicide-related behaviours (source: Silverman, Berman, Sanddal, O'Carroll & Joiner, 2007).

Nomenclature for suicide-related behaviours			Intent to die by suicide	Outcome		
				No injury	Non-fatal injury	Death
Suicide-related behaviour	Self-harm	With no suicidal intent				
		Without injuries: *Self-harm type I*	No	✓		
		With injuries: *Self-harm type II*	No		✓	
		With fatal injuries: *Self-inflicted unintentional death*	No			✓
	Undetermined suicide-related behaviour	With undetermined suicidal intent				
		Without injuries: *Undetermined suicide-related behaviour type I*	Undetermined	✓		
		With injuries: *Undetermined suicide-related behaviour type II*	Undetermined		✓	
		With fatal injuries: *Self-inflicted death with undetermined intent*	Undetermined			✓
	Suicide attempt	With suicidal intent				
		Without injuries: *Suicide attempt type I*	Yes	✓		
		With injuries: *Suicide attempt type II*	Yes		✓	
		With fatal injuries: *Suicide*	Yes			✓

1.3 The Extent of the Problem

1.3.1 Rates

According to the WHO, around one million people die by suicide every year, equating to approximately one death every 40 seconds (WHO, 2014). In 2012, 11.6 per 100,000 people died by suicide in the UK, consisting of 18.2 males per 100,000 and 5.2 females per 100,000 (Office for National Statistics (ONS), 2014). Within the UK, Scotland appears to be at a particularly high risk of suicide, with an estimated 15.2 deaths per 100,000 people in 2013, equating to 23.7 males and 6.7 females per 100,000 (Scottish Public Health Observatory, 2014). Figure 1.1 illustrates the official suicide figures for 2011, broken down by countries within the UK.

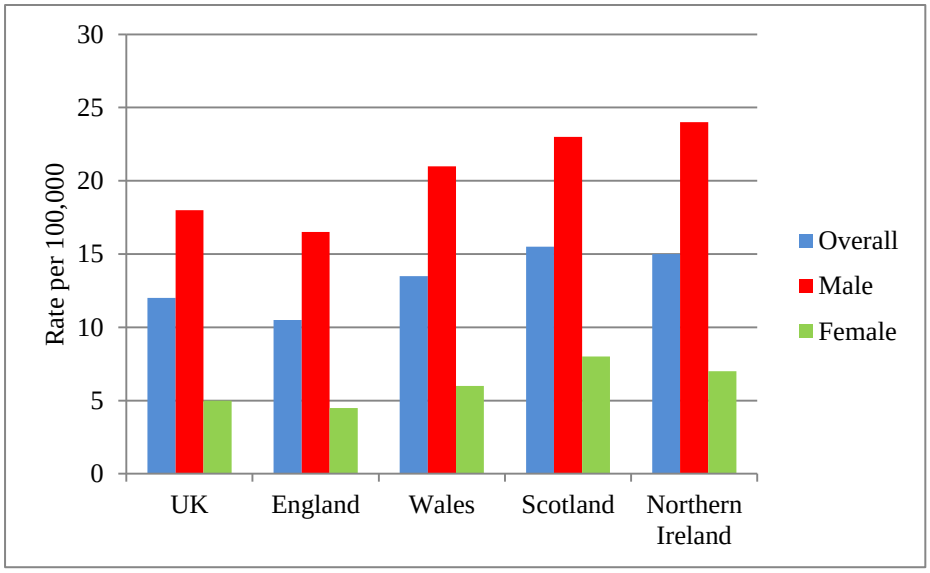

Figure 1.1: 2012 suicide rates by country, in the UK (adapted from Scowcroft, 2014).

Statistics indicate that the UK may actually have a relatively low suicide rate compared to many other countries, with some countries experiencing roughly 5 or 6 times this figure (e.g., Belarus, Russian Federation, Lithuania; WHO, 2011). Young people (those aged 15-24[1]) are of particular concern, with suicide representing the second most common cause of death in this age group internationally (Patton, Coffey, Sawyer, Viner, Haller, Bose, Vos, Ferguson & Mathers, 2009), and a leading cause of death nationally (Scottish Public Health Observatory, 2014). Figures 1.2 and 1.3 illustrate age-specific suicide rates in the UK between 2001 and 2012, for males and females, respectively. Within the UK, Scottish youths may be at an especially high risk, exhibiting much higher suicide rates than their English and Welsh counterparts (Scowcroft, 2014). Moreover, it has been suggested that suicide in young people is likely to be underestimated in official statistics, with many coroners giving verdicts of accidental or undetermined death to possible suicides, in order to protect families (Hawton, Saunders & O'Connor, 2012).

[1] Limited data is available for suicide rates in those under the age of 15. According to the Scowcroft (2014), this is on account of "the known subjectivity between coroners with regards to classifying children's deaths as suicide, and because the number in those under 15 tends to be low and their inclusion may reduce the overall rates" (p7).

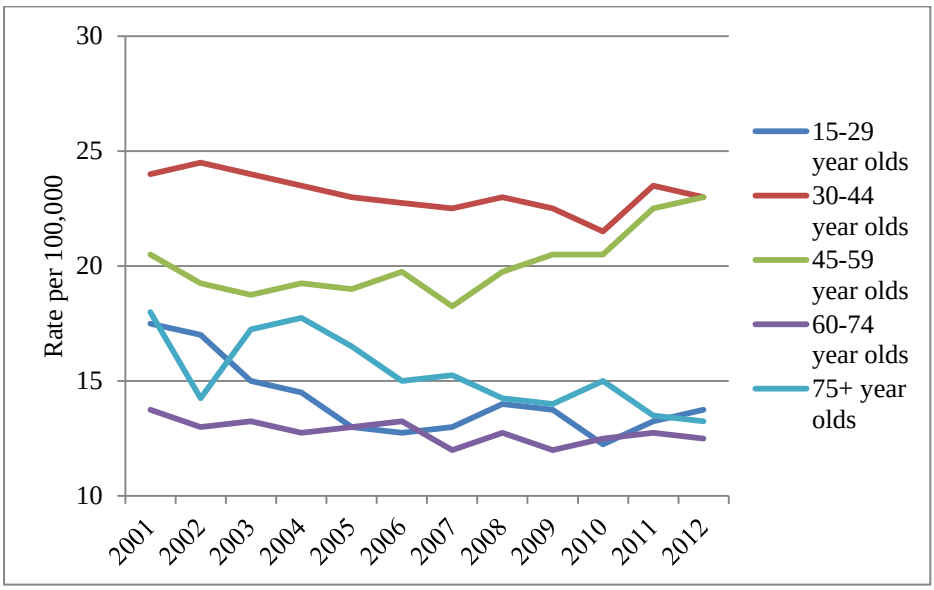

Figure 1.2: Suicide rates for males in the UK, 2001-2012 (adapted from ONS, 2014).

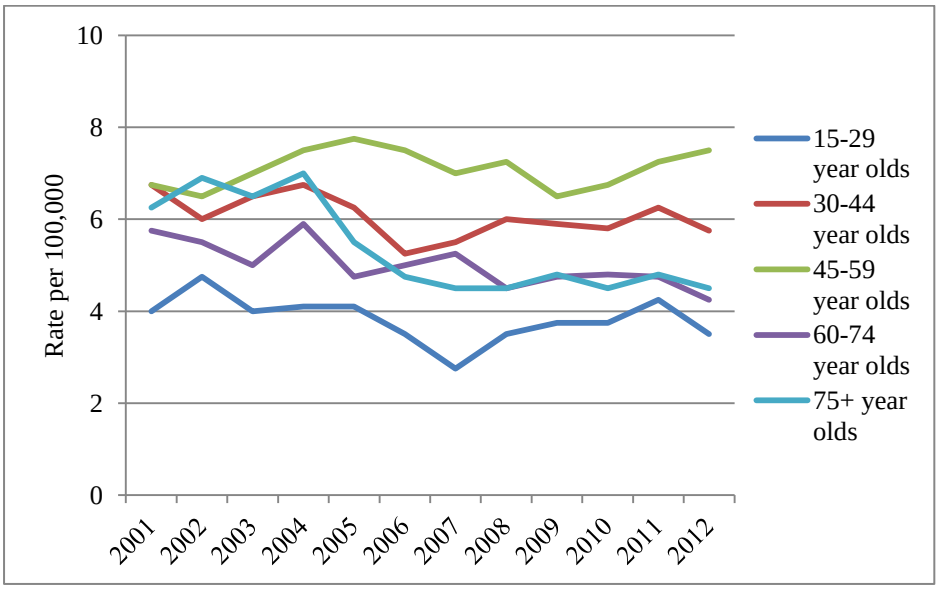

Figure 1.3: Suicide rates for females in the UK, 2001-2012 (adapted from ONS, 2014).

Non-fatal suicide attempts are far more common than suicide deaths, with estimations of around 20 non-fatal attempts occurring for every suicide death (WHO, 2007). There could be a range of reasons for an individual surviving a suicide attempt, including lack of knowledge of fatality of the chosen method, successful medical intervention, or lack of real intention to die, for example. Whilst suicide deaths are approximately three times more common in males than in females (GROS, 2013), non-fatal suicide attempts are more common in females than in males (Nock, Borges, Bromet, Cha, Kessler & Lee, 2008). Finally, by far the most common suicide-related behaviour of interest for the current thesis is

suicidal ideation, with one study reporting a lifetime prevalence of 9.2% in an international population (Nock, Borges, Bromet, Alonso, Angermeyer, Beautrais, Bruffaerts, Chiu et al., 2008). Although obviously posing less of an immediate threat than suicide attempts, there is the risk that those who experience suicidal ideation may go on to attempt suicide. Of those individuals in the Nock et al. (2008) study who reported ideation, 15.4% went on to attempt suicide – a figure which rose to 56.0% if they had also made suicide plans – so ideation (and planning) is nevertheless a substantial concern.

Non-fatal self-harm (often referred to as self-injury, self-mutilation or parasuicide) can take many forms, and what constitutes an act of self-harm varies considerably across the literature, from any self-reported act which causes pain or damages bodily tissue, to more severe acts which require medical treatment or hospital admission. As many acts of self-harm do not require medical care, hospital-based studies and official estimates are likely to underestimate the actual prevalence of self-harm (Kapur & Appleby, 2008). Nonetheless, self-harm is apparently far more prevalent than suicide, with an estimated 400 people per 100,000 in the UK engaging in acts of self-harm (Hawton & Fagg, 1992) and is particularly high in young people (O'Loughlin & Sherwood, 2005). Scottish adolescents appear to be at a higher than average risk for self-harm, with 13.8% reporting ever having self-harmed (O'Connor, Rasmussen, Miles & Hawton, 2009). As with non-fatal suicide attempts (but unlike suicide deaths), self-harm has historically been recorded as more prevalent in females than in males (e.g., Hawton, Linsell, Adeniji, Sariaslan & Fazel, 2013; Hawton, Rodham, Evans & Weatherall, 2002), and this is certainly true of Scottish adolescents (O'Connor et al., 2009), although the ratio appears to change across the lifespan (Hawton & Harriss, 2008) and there is evidence to suggest that figures may be levelling out (e.g., Kerr, Muehlenkamp & Turner, 2010).

1.3.2 Methods

Numerous methods are used by individuals to take their own lives, and these vary internationally and by gender (Ajdacic-Gross, Weiss, Ring, Hepp, Bopp, Gutzwiller & Rossler, 2008); perhaps as a function of varying availability of means, or of simple preference (Chen, Wu & Yip, 2011). In Scotland in 2012, the most common method of suicide was "hanging, strangulation or suffocation" which accounted for 41% of suicide deaths, followed by "poison", accounting for 37% of deaths; "drowning or submersion", accounting for 7% of deaths and "jumping or falling from a high place", accounting for 6% of deaths (GROS, 2013). Although fairly representative of the most common methods used

in the UK, the same does not apply internationally. The most common suicide method in the US in 2010 for example, was the use of firearms (Centres for Disease Control and Prevention, 2013), whilst firearms only account for 1% of suicide deaths in Scotland (GROS, 2013). Further, where similar methods are seemingly shared internationally, specific techniques within these broader methods are also likely to vary. For example, poisoning is a similarly common method in many Asian countries as it is in the UK, but whilst poisoning in the UK most commonly occurs through overdose of prescription or over-the-counter medication (e.g., Townsend, Hawton, Harriss, Bale & Bond, 2001), poisoning through ingestion of insecticides or other agricultural products is more common in Asian countries (e.g., Khan & Reza, 2000; Lotrakul, 2006), as is a recently increasing trend towards charcoal-burning (Liu, Beautrais, Caine, Chan, Chao, Conwell, Law, Lee, Li & Yip, 2007).

(Non-fatal) self-harm can potentially take any number of forms, as by definition, the method used need not result in death. Common methods include cutting, burning, ingestion of poisons or foreign objects, biting, scratching, insertion of foreign objects under the skin or nails and the banging of limbs or the head against other objects. Within countries in the UK, poisoning is the most common method of self-harm for which people are hospitalised (Hawton, Bergen, Casey, Simkin, Palmer, Cooper, Kapur, Horrocks, House, Lilley, Noble & Owens, 2007), and is more often (than self-cutting) associated with reports of wanting to die (Rodham, Hawton & Evans, 2004). Cutting is more commonly used by those who do not seek medical care, and those who self-cut are more likely (than those who self-poison) to be repeat self-harmers (Lilley, Owens, Horrocks, House, Nobel, Bergen, Hawton, Casey, Simkin, Murphy, Cooper & Kapur, 2008). In adolescents, cutting is believed to be the most common method in most European countries, followed by poisoning (Madge, Hewitt, Hawton, de Wilde, Corcoran, Fekete, van Heeringen, De Leo & Ystgaard, 2008).

1.3.3 Impact

Aside from the premature loss of an individual's life which obviously results from a suicide death, suicide can also be immensely damaging in a range of other ways. For example, in addition to the loss and grief experienced by the surviving friends and families of the deceased, they often experience shock and disbelief, are left with unresolvable questions, experience prolonged social and psychological isolation, and harbour intense feelings of anger for which they subsequently experience guilt (Lindqvist, Johansson & Karlsson, 2008). Mental health professionals who have been involved in the care of suicidal

individuals report significant and prolonged adverse effects on both their professional lives and their personal lives, following the suicide of a patient (e.g., Linke, Wojciak & Day, 2002). Society as a whole is also affected significantly by suicide, in terms of both the loss of societal contribution through premature deaths, and in terms of the economic costs of medical treatment, prevention measures, health/well-being promotion campaigns, and the reduction of workforce (e.g., Platt, McLean, McCollam, Mackenzie, McDaid, Maxwell, Halliday & Woodhouse, 2006). As such, a number of countries around the world have implemented strategies aimed at the reduction of suicidal behaviour. In Scotland, the Choose Life initiative was launched in 2002 (and updated in 2013), with the aim of reducing suicide deaths and supporting those affected by suicidal behaviour, through a combination of national and local prevention programmes, media campaigns and suicide prevention and awareness training for professionals involved in care. According to Scottish Public Health Observatory statistics, the initiative has been somewhat successful, with a reduction of suicide deaths in Scotland by 19% between 2000-2002 and 2011-2013. However, in 2013, there were still a probable 795 suicide deaths in Scotland, and suicide remains a leading cause of death in people aged 15-34 years old (Scottish Public Health Observatory, 2014). An update to the strategy has highlighted the importance of improving the evidence base, responding appropriately, and promoting change and improvement, in further reducing suicide rates (Scottish Government, 2013).

There is a notable lack of literature regarding the broader impact of non-fatal self-harming behaviour, but as touched upon in section 1.2.3, the potential risks to the individual are significant. As previously mentioned, those who engage in self-harm are subject to an increased risk of future suicide, lowered life-expectancy and other health problems. In addition, adolescents who engage in self-harming behaviours are at a greater risk of also engaging in anti-social or other health-risk behaviours and report greater levels of anger and emotional distress, and lower self-esteem (Laye-Gindhu & Schonert-Reichl, 2005). Although such cross-sectional research is unfortunately unable to determine the causal direction of these associations, it would seem that engagement in self-harming behaviours may nevertheless be indicative of a range of other adverse outcomes for an individual, which may in turn impact upon those around them and society in general.

1.4 Risk Factors

Many years of research into the causes of SSHB have indicated that there is no single variable which is both necessary and sufficient for any particular SSHB to occur. Rather, an individual's probability of engaging in such behaviours – and the particular behaviour in which they engage – is likely to result from the interplay of several factors combining to either increase or reduce risk. Full consideration of all known risk factors is beyond the scope of the current thesis, but some of the most robustly evidenced risk factors, and those relevant to the aims of the current thesis, are described in brief below.

1.4.1 Constitutional factors

In addition to the abovementioned sex-related differences in the risk of dying by suicide (e.g., GROS, 2013) or engaging in other SSHBs (e.g., Nock, Borges, Bromet, Cha, Kessler & Lee, 2008), age also appears to be a relevant factor. The WHO reports that although the elderly have historically been at the highest risk of dying by suicide worldwide, patterns are changing and younger people are now at the highest risk in one third of countries, with suicide representing a leading cause of death in 15-44 year-olds (WHO, 2014). According to GROS statistics for 2012, the risk of dying by suicide in Scotland was highest between the ages of 40 and 49 years (GROS, 2013), but relative to other countries in the UK, the suicide risk for under 18s in Scotland is particularly high (Appleby, Shaw, Kapur, Windfuhr, Ashton et al., 2008). Suicide reportedly occurs relatively rarely in childhood and early adolescence (Gould, Greenberg, Velting & Shaffer, 2003), although this may be partly accounted for by measurement issues (Hawton, Saunders & O'Connor, 2012). Conversely, self-harm is much more prevalent in younger people, and tends to decrease with age (Moran, Coffey, Romaniuk, Olsson, Borschmann, Carlin & Patton, 2012). Exact figures vary but most studies report that around 10% of adolescents have harmed themselves at some point in their lifetime (e.g., De Leo & Heller, 2004; Madge, Hewitt, Hawton, de Wilde, Corcoran, Fekete, van Heeringen, De Leo & Ystgaard, 2008), with Scottish adolescents reporting slightly higher rates, at 13.8% (O'Connor, Rasmussen, Miles & Hawton, 2009). In addition, 8.5% of Scottish adolescent boys and 19.5% of girls report having seriously thought about engaging in self-harm without actually doing it (O'Connor et al., 2009). The heightened prevalence of self-harm in young people in general, and the increased risk of suicide in Scottish young people relative to their non-Scottish counterparts, prompted the focus of the current thesis on SSHB in Scottish youth.

Evidence for the genetic transmission of suicidal behaviour has been provided by many researchers, although other variables which tend to occur in conjunction with shared genes

(e.g., shared environment), and the potential genetic transmission of other risk factors (e.g., psychopathology) make the picture somewhat less clear. A meta-analysis of family studies concluded that suicide risk is more than double that of the general population in those whose first-degree relatives died by suicide, and that this risk increases to about 11 times in identical twins of individuals who died by suicide (McGuffin, Marusic & Farmer, 2001). Evidence indicates that parental psychopathology – particularly affective disorder and substance abuse – may be associated with an increased suicide risk (Brent, Perper, Moritz, Liotus, Schweers, Balach & Roth, 1994), so the increased risk of suicide associated with genetic factors may result as an indirect outcome of transmission of psychiatric disorder. Gould, Fisher, Parides, Flory and Shaffer (1996) however, argue that the increased likelihood of a family history of suicidal behaviour in those who died by suicide, was beyond the risk contributed by psychopathology, and as will be discussed in Chapter 2, transmission of suicidal behaviour between families may be less to do with genetic or biological factors than the findings of these studies suggests, and more to do with social factors.

1.4.2 Substance use

Evidence for an association between suicidal behaviour and chronic alcohol consumption is consistently reported (e.g., Kolves, Varnik, Tooding & Wasserman, 2006; Rossow & Amundsen, 1995) and there may even be a relationship between per capita alcohol consumption and national suicide rates, particularly in northern European countries (Ramstedt, 2001). Perhaps counterintuitively, some research has suggested that current alcohol intoxication (as opposed to chronic abuse) is associated with less lethal suicide attempts than those made by individuals without alcohol in their system (Suokas & Lonnqvist, 1995), but other researchers argue that alcohol may exacerbate the lethality of overdoses (Hawton, Fagg & McKeown, 1989). Excessive alcohol consumption – both chronic and at the time of admission – has also been found in those presenting to general hospital following an episode of self-harm (Haw, Hawton, Casey, Bale & Shepherd, 2005).

Reviews of the literature have also implicated illicit drug use in proffering an increased risk of suicidal behaviour, particularly the use of opioids, amphetamines (Degenhardt & Hall, 2012), crack/cocaine (Felts, Chernier & Barnes, 1992), inhalants (Vijayakumar, Kumar & Vijayakumar, 2011), tranquilisers and phencyclidine (Vega, Gil, Warheit, Apospori & Zimmerman, 1993). In particular, individuals with opioid use disorder and those who use drugs intravenously are several times more likely to die by suicide than non-drug-users

(Wilcox, Conner & Caine, 2004). According to the WHO (2008), an estimated 170,000 disability-adjusted life years (DALYs) were attributable to drug-related suicide or self-inflicted injuries in Europe in 2004 (reported in Degenhardt & Hall, 2012). It has been suggested however, that the association between drug use and suicidal behaviour may be mediated by depression (Degenhardt & Hall, 2012), but other researchers argue that the increased suicide risk associated with substance use is simply increased when other risk factors (e.g., psychiatric disorder) are experienced in conjunction (Vijayakumar et al., 2011).

Smoking has been found to be associated with up to a four-fold increase in risk of dying by suicide in both adults (Hemenway, Solnick, & Colditz, 1993) and adolescents (Makikyro, Hakko, Timonen, Lappalainen, Ilomaki, Marttunen, Laksy & Rasanen, 2004), and with self-harm in adolescents (Makikyro et al., 2004). Evidence even exists for a causal effect of smoking on suicidality (Bronisch, Hofler & Lieb, 2008). It has been suggested that poor mental well-being and heavy alcohol consumption may account for apparent smoking-related increases in suicide risk (Hemmingsson & Kriebel, 2003), but the associations found by Makikyro et al. (2004) remained significant even after controlling for psychiatric disorder and demographic variables.

The strong and consistently reported links between substance use and SSHB contributed to the conception of the current research. As will be discussed in Chapter 3, substance use, like SSHB, may be particularly prone to social influence and normative influence in particular. The links between the behaviours prompted the examination of whether approaches which appear effective in reducing substance use might also be effective in reducing SSHB.

1.4.3 Psychological/psychiatric factors

Although only around 15% of suicides occur in those who report suffering from mental illness (O'Connor, Sheehy & O'Connor, 2000), a systematic review indicated that of a list of commonly studied risk factors, mental illness was the variable most strongly associated with suicide (Cavanagh, Carson, Sharpe & Lawrie, 2003). This review found that approximately 91% of those who died by suicide had suffered from some form of mental disorder, with depression representing the most common diagnosis. Another review (Arsenault-Lapierre, Kim & Turecki, 2004) which reported similar rates of mental illness in those who died by suicide (87.3%) revealed that there may be gender differences in those diagnoses most common in suicide, with depression and other affective disorders more prevalent in females, and substance-related problems, personality disorders and childhood disorders more

prevalent in males. Moreover, Arsenault-Lapierre et al. (2004) reported that only around half of the studies they reviewed actually investigated both axes I and II disorders, and this omission may have resulted in further underestimations.

In addition to psychiatric factors, evidence exists for associations between suicidal behaviour and a wide range of psychological and personality variables. For example, a tendency to ruminate (Morrison & O'Connor, 2008), low levels of optimism (Hirsch, Conner & Duberstein, (2007), cognitive rigidity (Neuringer, 1964), poor problem-solving ability (Pollock & Williams, 2004), impulsivity and aggression (Gvion & Apter, 2011), and extraversion, neuroticism and hopelessness (Brezo, Paris & Turecki, 2006) have all been implicated in posing an increased risk of suicidality. However, there is some debate over whether some of these variables (e.g., rigidity of thought) represent traits which are stable and proffer ongoing heightened risk of suicidality, or whether the expression of these variables merely represents transient states in which suicide-associated characteristics are displayed for the duration of the suicidal episode (e.g., Perreh & Wichman, 1987). The Integrated Motivational-Volitional (IMV) model of suicidal behaviour (O'Connor, 2011; see section 1.5.3, below), helps to explain how both longstanding and transitory psychological states may guide the suicidal pathway, and how such traits might impact upon an individual's risk at varying theoretical stages.

Perfectionism is a psychological risk variable which is of particular interest, given that the current thesis focuses on social aspects of suicide and self-harm, and high levels of perfectionism have consistently shown associations with suicidal behaviour (O'Connor, 2007). Socially-prescribed perfectionism has been identified as one dimension within a broader perfectionism construct (Hewitt & Flett, 1991); referring to the extent to which one believes that others' hold unreasonably heightened expectations of one's behaviour. This dimension in particular appears to be highly correlated with suicidal behaviours in both clinical and non-clinical populations (O'Connor, 2007), and may even differentiate between those self-harmers with and without intention to die (Boergers, Spirito & Donaldson, 1998). The importance of one's perceptions of others' attitudes to the development of one's own attitudes and behaviour will be discussed further in Chapter 3 and throughout the remainder of the current thesis.

1.4.4 Social factors

Of most interest for the purposes of the current thesis are a range of risk factors which provide support for the notion that SSHBs occur within the context of the social environment, and are strongly associated with social interactions and experiences, perceived standards and expectations, and the behaviour of those around us.

1.4.4.1 Societal features

Strong positive associations have been shown between socio-economic deprivation and both suicide and self-harm (Hawton, Harriss, Hodder, Simkin & Gunnell, 2001). The same authors also found that social fragmentation (similar to Durkheim's anomie; see section 1.5.1, below) was strongly associated with self-harm and weakly with suicide, and that the relationship between suicide and social deprivation was attenuated by controlling for social fragmentation, and vice versa. Conversely, alternative evidence exists that socio-economic deprivation may be directly related to suicide rates; with higher suicide rates amongst those with higher socio-economic status (see Rehkopf & Buka, 2006). A systematic review of the literature around community level variables indicated however, that features of study design (such as size of aggregated area or measurement of socio-economic characteristics) may account for variation in findings, and that overall, lower socio-economic status tends to show associations with higher rates of suicide (Rehkopf & Buka, 2006).

On a related note, unemployment may also be associated with an increased risk of suicidal behaviour, but findings vary across the literature. A longitudinal study of mortality data in the US (Kposowa, 2001) for example, showed that both men and women who were unemployed at baseline were more likely to die by suicide than their employed counterparts, but the effect appears to weaken with time (although it is not clear whether this is because distress is heightened following job loss, or they have since become employed). Conversely, Stack and Haas (1984) reported that the duration of unemployment is directly related to suicide rates, with risk of suicide increasing with duration of unemployment.

In addition to specific societal factors which may directly impact upon an individual and their quality of life, evidence suggests that context-dependent societal features, such as relative ethnic density (Neeleman, Wilson-Jones & Wessely, 2001) may pose differing levels of risk too and this has led researchers to conclude that general contextual distribution of risk factors may be as important in determining risk, as the experience of individual risk factors (Neeleman, 2002). Associations have also been shown between political variables and suicide rates, including political regime (Page, Morrell & Taylor, 2002), public policy (Flavin & Radcliff, 2009), and participation in the voting process (Whitley, Gunnell, Dorling

& Smith, 1999). It would seem however, that the relationship between politics and suicide is not straightforward. State-wide mutual support for a *losing* political candidate – argued to be indicative of increased social integration at the local level – may be more protective against suicide than endorsement of a winning political candidate (Classen & Dunn, 2010). These types of findings have led researchers to argue that research investigating such links should make efforts to account for other important sociological factors (e.g., Stack, 2002), and argue for the importance of individuals' general social experience in the development of suicidality.

1.4.4.2 Social support

Social support – characterised by relationships which enable the obtainment of psychological and material resources (Cohen & Wills, 1985) – has repeatedly shown protective effects against suicidal behaviour, whilst a lack thereof increases risk, across a range of populations. For example, lower levels of family cohesion, social embeddedness and social support have all been found to increase rates of suicide attempt in African Americans adults (Compton, Thompson & Kaslow, 2005), whilst social support and a sense of belonging have shown a weakening effect on the relationship between depression and suicidal ideation in Australian farmers (McLaren & Challis, 2009). Further, problems with friends, romantic partners and family have been shown to increase risk of suicide attempt in young Australian adults (Donald, Dower, Correa-Velez & Jones, 2006), whilst support from friends and family was negatively correlated with perceived suicide risk in American high-school students (Greening & Stoppelbein, 2002), and social connectedness generally appears to proffer protective effects, particularly in those with psychiatric disorder (Donald et al., 2006). In young people with a history of sexual abuse – a group susceptible to an already increased suicide risk (Fergusson, Horwood & Lynskey, 1996) – the belief that an adult cared for them increased resilience against suicide (Chandy, Blum & Resnick, 1996a), as did the ability to discuss problems with family and friends (Chandy, Blum & Resnick, 1996b), and a supportive school environment (Chandy, Blum & Resnick, 1997). Such findings suggest that the aetiology of SSHB is not isolated within an individual, but may instead be influenced by one's interaction with one's social environment.

1.4.4.3 Media influence

Various forms of media may have a harmful effect on individuals' engagement in SSHB. For example, news reporting of suicide has repeatedly shown associations with subsequent increases in suicidal behaviour or raised suicide rates (Gould, 2001; Stack, 2005). In particular, the effect of news reports of well-known or highly-valued public figures' suicides

(e.g., celebrities, politicians) has received attention internationally, with suicide rates consistently showing an increase following reports of such a death (Niederkrotenthaler, Fu, Yip, Fong, Stack, Cheng & Pirkis, 2012), particularly in young people (Phillips & Cartensen, 1986). This escalating effect on suicidal behaviour is apparently not constrained to reports of real-life suicides, with suicidal behaviour showing an increase following portrayal of fictional suicides in films (e.g., Gould & Shaffer, 1986), TV series (e.g., Holding, 1974), soap operas (e.g., Fowler, 1986), and even one-off dramas (e.g., Hawton, Simkin, Deeks, O'Connor, Keen, Altman, Philo & Bulstrode, 1999). Suicide-related thoughts may even be primed following exposure to suicidal content in rock music and music videos (Rustad, Small, Jobes, Safer & Peterson, 2003). Conversely, media reports of suicidal ideation without subsequent behavioural enactment, and of non-suicidal coping strategies adopted by individuals experiencing adversity, are negatively related to suicide rates (Niederkrotenthaler, Voracek, Herberth, Till, Strauss, Etzerdorfer, Eisenwort & Sonneck, 2010). Each of these features is illustrative of the powerful impact that communicated social norms may have upon individuals (see Chapter 3).

Such findings, in addition to evidence that careless or inaccurate reporting of real-life suicide in the media may have damaging effects on those bereaved by suicide (Chapple, Ziebland, Simkin & Hawton, 2013), have led to the development of guidelines regarding responsible reporting of SSHB in the media (e.g., Samaritans, 2008; WHO, 2008), in an attempt to reduce "copycat" suicidal behaviour, and show sensitivity to the needs of the bereaved. Guidelines discourage, for example, the use of sensationalist language, reference to specific locations or the provision of detailed information about methods, and encourage the provision of information about risk factors and sources of advice and support. Evidence suggests that adherence to such guidelines may prove effective in reducing suicidal behaviour (e.g., Etzersdorfer & Sonneck, 1998). Appropriate communication of messages to minimise harm is further considered in Chapter 3.

In recent years, the internet has increasingly attracted attention with regard to its impact on SSHB, and has been described as a double-edged tool in that it has the potential to both reduce and to promote suicide (Tam, Tang & Fernando, 2007). The internet enables anonymous access to masses of information and interactions with strangers, and renders otherwise restricted products obtainable, through the use of search engines, specialist websites, chat rooms, forums, and social media. In terms of its damaging effects, in addition to traditional forms of media, the internet may proffer yet another vehicle through which suicidal behaviours are publicised and glamourised (e.g., news websites and social media

sites like Facebook and Twitter), provide a ready source of information on effective suicide methods and fatal drug dosages (e.g., http://www.ctrl-c.liu.se/~ingvar/methods/poison.html), and enable access to the physical means by which to take one's life (e.g., the purchase of poisonous plants from abroad; Arachchillage, Hewapathirana & Fernando, 2006). Web-based social interaction in particular may increase suicidal behaviour through the overt and deliberate encouragement of other users to engage in such behaviours (e.g., Biddle, Donovan, Hawton, Kapur & Gunnell, 2008), the strengthening of suicidal resolve in those who were previously ambivalent (e.g., Baume, Cantor & Rolfe, 1997), the encouragement of suicide pacts (Rajagopal, 2004), and increased distress through cyber-bullying (Hinduja & Patchin, 2010). However, there is also the potential for the internet to be used to positive effect. For example, a review of the web-based support and information available around suicide and self-harm identified numerous sites providing (non-encouraging) information about suicide, self-harm, mental health (including warning signs to look out for in loved ones) and sources of support, accounts of individuals' own alternative methods of coping, suggested reasons not to self-harm or attempt suicide, and in some cases, even offering email-based peer support (Prasad & Owens, 2001). Literature regarding any impact these measures might have over SSHB is lacking, but the potential perhaps exists for combating the damaging effects of the internet by using it to promote healthier messages and encourage help-seeking.

1.4.4.4 Clusters/contagion

Finally, evidence suggests that SSHBs often occur in clusters of time and space and may have contagious properties, particularly in young people, men, those with a history of self-harm (Haw, Hawton, Niedzwiedz & Platt, 2013) or suicidal behaviour (Davison, Rosenberg, Mercy, Franklin & Simmons, 1989), and those who have suffered with mental health issues (Davidson et al., 1989). For example, it has often been reported that following a suicide death in a particular setting, several further episodes of suicidal behaviour – beyond that which might normally be expected – occur within a short time period (e.g., Haw, 1994; Johansson, Lindqvist & Eriksson, 2006; Robbins & Conroy, 1983), and this effect appears particularly powerful within schools (e.g., Brent, Kerr, Goldstein, Bozigar, Wartella & Allan, 1989; Poijula, Wahlberg & Dyregrov, 2001). Figures vary widely across different populations, but it is estimated that somewhere between 1% and 57.5% of suicides form part of a suicide cluster (Niedzwiedz, Haw, Hawton & Platt, 2014). Cluster analyses have indicated statistically significant clusters of suicides in a range of settings internationally, including prisons and police cells (e.g., Cox & Skegg, 1993), hospitals (Gould, Petrie, Kleinman & Wallenstein, 1994); military settings (e.g., Hourani, Warrack & Coben, 1999),

and the general population (e.g., Davidson et al., 1989), and such clusters are typically made up of adolescents or young adults (Gould et al., 1994), and often consist of people who knew each other and who employed similar methods (Austin, van den Heuval & Byard, 2011). Similar contagious effects have also been noted for self-harming behaviours (e.g., Matthews, 1968; Taiminen, Kallio-Soukaunen, Nokso-Koivisto, Kaljonen & Helenius, 1998; Walsh & Rosen, 1985). Such evidence suggests that in addition to the impact of various forms of media, the occurrence of SSHB in one's own locality or by those within an individual's community (or other contextual setting) may further increase an individual's own risk of engaging in those behaviours. Taken together, this literature demonstrates the overall impact on SSHB that one's social context can have, particularly when behaviours have become perceived as normative on account of exaggerated assessment of prevalence or irresponsible communication of the issue.

1.5 Theoretical Models of Suicidal and Self-harming Behaviour

Despite a long-standing, pragmatic interest within the field (for example, the prevalence of suicide and self-harm and associated risk factors), the study of SSHB has historically been atheoretical in nature (Lester, 1988; Rogers, 2001). Whilst it is undoubtedly useful to know which factors might increase or reduce risk, the development of psychological theory within any behavioural domain is vital in providing an integrated framework through which that behaviour might be understood, and in generating hypotheses which might be tested in order to further increase understanding. Rogers (2001) for instance, claims that in the absence of theory, suicide research is ineffective in reducing suicide, increasing predictive ability, and in furthering our understanding of those individuals who are affected by suicide. Particularly in the case of negative or damaging behaviours, a theoretical understanding is vital in providing means by which those behaviours might be prevented, or ways in which their negative impact might be reduced. In order that the development and course of SSHB might be understood, and in turn, that measures might be taken to prevent it, theory development was necessary, but the formulation of comprehensive theory has only relatively recently come into fruition.

1.5.1 Durkheimian theory

Although sociological in nature, Durkheim's (1897) theory of suicide is considered one of the first and most instrumental moves towards the development of theoretical frameworks

through which suicide might be understood (O'Connor & Sheehy, 2000), and is perhaps particularly relevant to the current thesis on account of its focus on social factors. Durkheimian theory argues that social factors unequivocally *cause* suicide. Dismissing other factors (such as psychopathological and demographic factors) as potentially contributory but not sufficient to *cause* suicide, Durkheim argued that all suicides result from varying levels of imbalance of social integration and moral regulation. When particular thresholds of either of these are reached, one of four types of suicide may result; egoistic, altruistic, anomic and fatalistic. *Egoistic suicide* occurs when an individual experiences prolonged weakening of social bonds, resulting in detachment from their community. With regard to currently recognised risk factors, an example of those who might be prone to such a suicide might be those who have experienced divorce, or those experiencing social isolation. *Altruistic suicide* represents the opposite to egoistic suicide, and occurs when an individual is so highly integrated into their community that they become overwhelmed by the demands that their community places upon them, and their needs become less important than the needs of the community. It is difficult to place this category of suicide within the context of recognised risk factors, but it could perhaps apply to those individuals who take their own lives as a result of the perception that they are a burden on others; perhaps those with chronic health conditions, or the elderly. *Anomic suicide* occurs in the context of social upheaval, whereby an individual loses direction and is unable to regulate their goals or desires. Such a suicide might apply to that associated with major social changes such as loss of employment, or bereavement. Finally, *fatalistic suicide* represents the opposite to anomic suicide, and occurs when an individual experiences excessive direction and regulation, and is unable to pursue their goals or express their desires. This might apply to those who die by suicide in the context of oppressive political regimes, or within highly-structured institutions (e.g., prison). Although useful in prompting the testing of these ideas, generating avenues for further research, and highlighting the importance of social factors in suicide, Durkheim's focus solely on the social causes of suicide may be too simplistic in that it does not account for the manifestation of different behaviours within the suicidal spectrum, it dismisses many of the known risk factors which may exacerbate or attenuate risk, and it fails to account for why different individuals exposed to similar social experiences, do not uniformly engage in suicidal behaviour.

1.5.2 Development of psychological theory

More recent psychological theories have in part addressed the limitations of sociology-based theory and as such, have further improved our understanding of suicidal behaviour. Full

consideration of every model proposed to date would be beyond the scope of the current thesis, but some of the most empirically supported theories are discussed below.

Building on previously proposed theories of suicide such as the cubic model, in which suicide results when optimal levels of press (stress), psychache (pain) and perturbation are reached (Shneidman, 1985); suicide as a method of escape from oneself (Baumeister, 1990); or suicide as the result of defeat and entrapment (Gilbert & Allan, 1998), Williams' (2001) Cry of Pain theory proposes that suicidal behaviour results when three components combine. That is, suicide will result when i) an individual perceives that they are entrapped in a distressing or defeating situation from which ii) escape is not possible, and iii) there is no potential for rescue. Contrary to the traditionally held belief that suicidal behaviour represents a "cry for help", the model posits that individuals who engage in suicidal behaviour do so under the belief that no help is available, and as such, any communicative function of their behaviour is limited. Whilst not all suicide-related behaviour may be undertaken with the intent to die (see section 1.2.3), the theory suggests that all suicidal and related behaviours share one common factor; namely, the desire to escape an unbearable situation. Of course, one's ability to bear stressful situations or indeed one's tendency to perceive a situation as unbearably stressful might depend for example, on psychological factors, but it is the end perception of the situation as both unbearable and inescapable, which results in SSHB. A diagrammatic depiction of the model is presented in Figure 1.4.

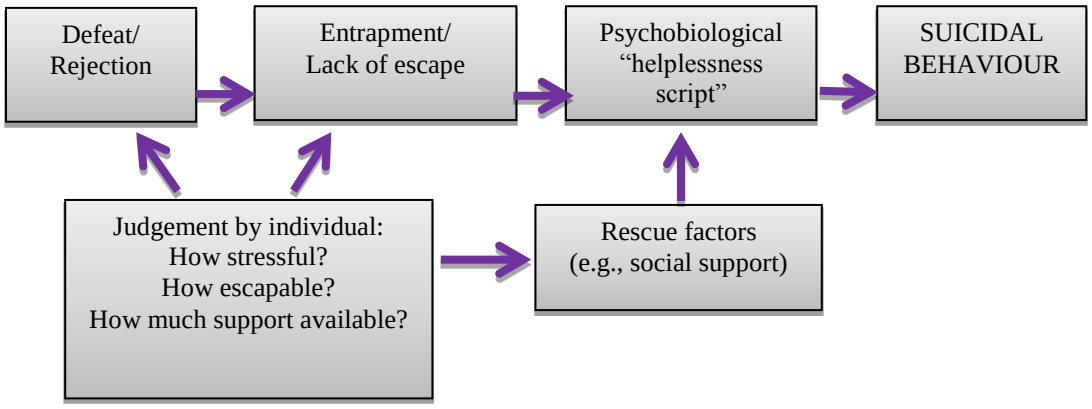

Figure 1.4: The Cry of Pain model (adapted from Williams, 2001)

As well as the existence of analogous phenomena in nature (e.g., a defeated animal may display depression-like or hopeless symptoms if it is unable to escape its assailant) the model has received much empirical support (e.g., Johnson, Tarrier & Gooding, 2008; O'Connor, 2003; Rasmussen, Fraser, Gotz, MacHale, Mackie, Masterton, McConachie &

O'Connor, 2010), and arguably one of the largest strengths of the model is its ability to account for variations across individuals (i.e. all three components are susceptible to differing perceptions and reaction to stimuli). However, the model is not without its criticisms. It could be argued for example, that there is some overlap between components, such that it is difficult to distinguish them in practice. If one is truly defeated (or perceives to be so), that must encompass a loss of hope for ever regaining favour, a concept which surely intersects with both the notion of being unable to escape from one's current state, and of the absence of the prospect of rescue. The similarity of the concepts and the overlapping nature of the components of this model have resulted in some disagreement in the literature over definitions and measurement, and this may render some of the literature based on this model, difficult to interpret.

The Interpersonal Theory of Suicide (Joiner, 2005; Van Orden, Witte Cukrowicz, Braithwaite, Selby & Joiner, 2010) proposes that suicidal behaviour may result when an individual is both capable of, and in possession of adequate desire for, suicide. Such desire is suggested to result when two interpersonal constructs are simultaneously expressed in an individual – namely, "thwarted belongingness" and "perceived burdensomeness" – and these constructs are viewed as stable and unchanging. Thwarted belongingness refers to constructs such as social isolation and the unmet need for social connectedness. Perceived burdensomeness refers to negative feelings towards oneself and the belief that one poses a liability to those close to them. When experienced in conjunction, suicidal behaviour will still only occur if an individual has acquired capability; i.e. they have developed an increased tolerance towards pain and a reduced fear of death, perhaps through habituation as a result of repeated exposure to painful or fear-inducing stimuli. Figure 1.5 illustrates the theory in diagram form.

As with the Cry of Pain theory (Williams, 2001), some of the strengths of Interpersonal Theory are that it has received empirical support (e.g., Van Orden, Witte, Gordon, Bender & Joiner, 2008), and it goes some way towards explaining why suicidal behaviour is a relatively rare occurrence. In addition, many of the known risk factors for suicidal behaviour correspond neatly with one or more of the necessary constructs; e.g., social isolation, abuse and divorce may map onto thwarted belongingness; physical ill-health, unemployment and family conflict may map onto perceived burdensomeness, and impulsivity and previous self-harm or suicide attempts may map onto capability for suicide. Equally though, the model is subject to some limitations. Unlike the Cry of Pain theory, Interpersonal Theory fails to account for non-suicidal self-harming behaviours (although nor does it claim to). Further, it

does not allow for the eventuality that some individuals, having reached the necessary states of thwarted belongingness, perceived burdensomeness, and habituation to pain and fear, may never develop suicidality. Rather, the model assumes that a desire for suicide is intrinsic to the co-occurrence of the former two constructs, and the latter merely determines whether thought/desire is converted into action.

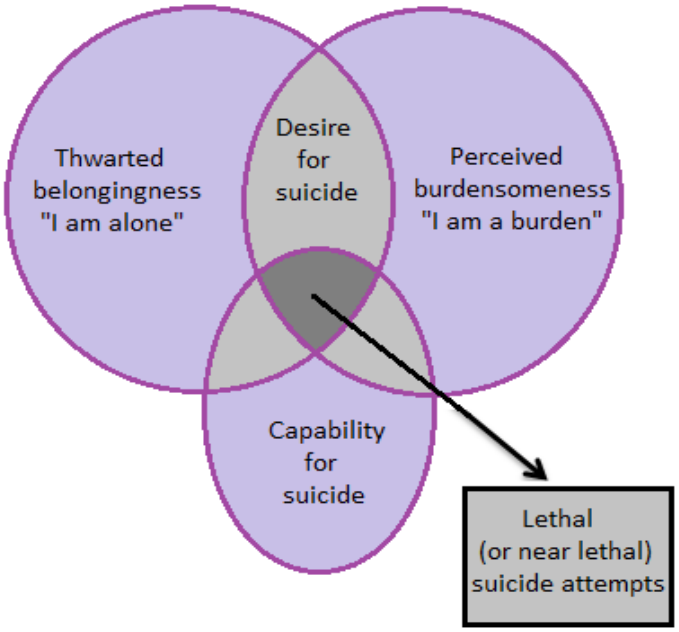

Figure 1.5: The Interpersonal Theory of Suicide (adapted from Joiner, 2005)

1.5.3 The Integrated Motivational-Volitional model of suicidal behaviour

Theoretical models aiming to explain the aetiology and development of SSHB have thus developed steadily over recent decades, and whilst useful in the subsequent identification of risk factors and further theory development, they have historically tended to focus predominantly on suicide itself, with relatively little emphasis on other suicide-related behaviours. A more recent model however – the Integrated Motivational-Volitional model (IMV; O'Connor, 2011) – combines theoretically important, empirically supported features of previous models to address a continuum of suicidal behaviour (from ideation, through intent, to enactment), and explores how an individual might travel through it. The IMV model is illustrated in Figure 1.6. As arguably the most comprehensive model available in addressing the relative impact of a range of factors and determining potential movement through a range of different behaviours, it is this model on which the current thesis focuses.

The IMV model considers the multifaceted psychosocial nature of suicidal behaviour and attempts to explain why given the presence or absence of certain risk or protective factors, some individuals will progress through certain stages of suicidal behaviour, whilst others will not. Drawing upon the Theory of Planned Behaviour's notion that intention predicts behaviour, and that behavioural enactment consists of a motivational phase and a volitional phase (Ajzen, 1991), the IMV model describes how suicidal intention relates to suicidal behaviour, and how the transition from the former to the latter might be moderated. Given that most individuals who experience suicidal ideation never make a suicide attempt (Kessler, Borges & Walters, 1999), the IMV model is advantageous over previous models in that it is sensitive to this distinction and its features, and as such, may be especially useful in terms of suicide prevention[2]. Having defined three distinct phases involved in suicidal behaviour (a pre-motivational phase, a motivational phase, and a volitional phase), the model describes how the interaction between various psychological and environmental factors might facilitate or obstruct transition between phases, and between states within those phases, through state-specific moderators (see Figure 1.6).

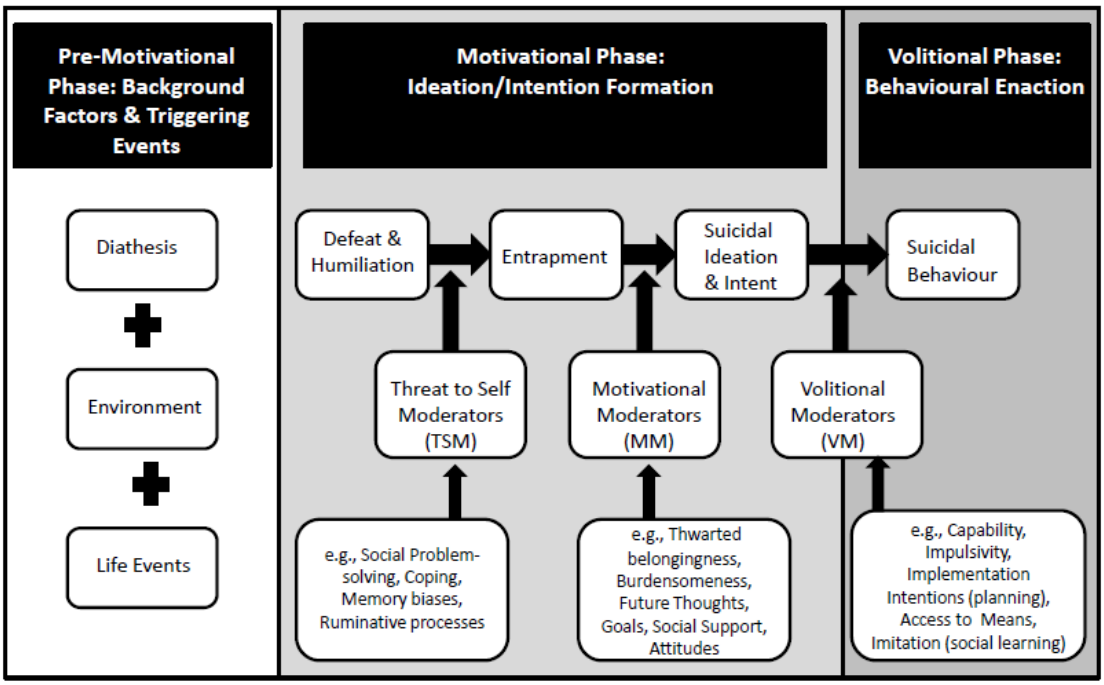

Figure 1.6: The Integrated Motivational-Volitional model of suicidal behaviour (*source: O'Connor, 2011*).

[2] It should be noted however, that the IMV model does not specifically make any reference to self-harming behaviour without suicidal intent, referring only to "suicidal behaviour", generally.

The *pre-motivational phase* provides the pre-ideation, biopsychosocial context for the development (or not) of suicidal ideation and/or behaviour. Personal diathesis (e.g., innate vulnerability) combines with environmental factors (e.g., deprivation) and life events (e.g., abuse, illness), to determine an individual's predisposition to suicidality. Stable personality traits (e.g., perfectionism) may also contribute to the diathesis at this stage, as well as impact upon transitions through later phases through transient fluctuation in responses to events. As will be addressed throughout the following chapters, it may be argued that perceived social norms represent an environmental factor through which the development of suicidal behaviour is predisposed, and exposure to SSHB in one's social context might represent a predisposing life event.

Drawing upon the Cry of Pain model (Williams, 2001), the *motivational phase* describes the development of suicidal ideation and intent as a response to inescapable feelings of defeat and humiliation, as determined by the pre-motivational phase. Dependent on personal pre-motivations, different individuals differ in their perceptions of (and therefore responses to) situations in terms of how defeating or humiliating they are. *Threat to self moderators* (TSMs) then determine perceived inescapability and feelings of entrapment. TSMs are defined as "any variable that attenuates or strengthens the relationship between threat to self-appraisals……and entrapment" (O'Connor, 2011; p190); for example memory biases which might inflate perceptions of historical and ongoing struggles, or rumination which might emphasise and prolong negative experiences and affect. Once entrapment is experienced, *motivational moderators* (MMs) determine the commencement of suicidal ideation and intent. Defined as "any factor (moderator) that changes the likelihood that entrapment will lead to suicidal ideation and intent" (O'Connor, 2011; p191), MMs are analogous to Williams' (2001) rescue factors, and might include such things as social support and positive future thinking. In terms of the current thesis, the features of note at this stage are such moderators as socially-prescribed perfectionism (see section 1.4.3), which may be impacted upon by perceived social norms and expectations, and social support and belongingness, which may influence an individuals' motivation to conform to perceived norms.

The *volitional phase*, describes the transition from suicidal ideation and intent into behavioural enactment. *Volitional moderators* (VMs) – defined as "any factor that renders it more or less likely than an individual will act on their suicidal intentions" (O'Connor, 2011; p193) – refer to the direct factors which result in suicidal behaviour, given the necessary prerequisites. This represents the final stage at which social factors relevant to the current

thesis might impact upon suicidal behaviour. Access to means and the capability to take one's life (as described by the Interpersonal Theory; Joiner, 2005) perhaps represent obvious factors, but for the purpose of the current thesis, *imitation (social learning)* is of particular interest. The IMV model posits that given the necessary predisposition and motivation, knowing somebody else to have engaged in suicidal behaviour may increase the likelihood that an individual's suicidal ideation will be converted into suicidal behaviour. Chapters 2 and 3 discuss how both the (known or perceived) behaviour of specific others and perceptions of normative behaviour might influence one's own behaviour, and the remainder of the current thesis explores these phenomena in relation to SSHB.

In addition to appearing theoretically comprehensive and inclusive, the IMV's utility and applicability in real-life contexts has received considerable empirical support. In particular, its ability to differentiate between individuals at different stages of suicidal behaviour has been repeatedly demonstrated. For example, defeat and entrapment variables (motivational variables) have been found to show an increase, as predicted by the IMV, from non-self-harmers, through first time self-harmers, to repeat self-harmers, whilst social support shows the predicted decrease across those groups (Rasmussen, Fraser, Gotz, MacHale, Mackie, Masterton, McConachie & O'Connor, 2010). Further, adolescent self-harm ideators and enactors have been shown to differ from controls – but not each other – on socially-prescribed perfectionism, brooding, self-esteem and optimism (pre-motivational and motivational variables), and to differ from controls and each other on self-harm in friends or family, descriptive norms and impulsivity (volitional variables), as predicted by the model (O'Connor, Rasmussen & Hawton, 2012). As such, the model seems to provide an empirically supported, comprehensive biopsychosocial framework through which the development of suicidal behaviour may be understood, and for the purposes of the current thesis, assists in explaining how the social factors which have been found to be associated with such behaviours, impact upon an individual at various stages throughout the suicidal process.

1.6 Summary

SSHBs have wide-reaching negative effects and the development of evidence-based prevention strategies is vital to saving lives and improving outcomes for those affected by such issues. Inconsistencies with measurement and definition present challenges, but there is some debate around the utility of making distinctions between behaviours and motivations,

and for the purposes of the current thesis, the full range of SSHBs are of interest. SSHBs in young people pose a particular concern, with young people at the highest risk of self-harm, and self-harm representing a major predictor of future suicide. A range of social risk factors have been identified as potentially important in both the manifestation of SSHBs (e.g., societal adversities), and protection against them (e.g., social support). Notably, exposure to the SSHB of others may represent an important source of influence, with evidence for increases in such behaviours following media reports and fictional portrayal for entertainment, and occurrences within real-life settings. Suicidal behaviour may have contagious properties, and the existence of clusters of similar behaviours within specific contexts and time periods provides support for this. The IMV model (O'Connor, 2011) provides some insight into potential routes through suicidal behaviour pathways and highlights the impact of various social risk factors at various stages in the development of suicidality.

The extent to which an individual has been exposed to the SSHB of others, or perceives that suicidal behaviour is prevalent or acceptable, may therefore represent an important consideration in the identification of at-risk individuals, and in the development of prevention strategies. Empirical testing of the IMV model supports this, with reported exposure to self-harming in others predicting behavioural enactment of one's own ideation. The following chapter focuses specifically on the impact of the immediate social environment on young people, reviewing the literature exploring associations between young people's SSHBs, and those behaviours in people they know.

Chapter 2

Associations between Children's and Adolescents' Suicidal and Self-harming Behaviour and the Suicidal and Self-harming Behaviour of People They Know: A Review of the Literature

2.1 Abstract

Background

SSHBs are a huge public health concern, and research into causes is vital in order to target prevention efforts towards those individuals who are most at risk. Research suggests that social influences may be among the many contributory factors to SSHBs, particularly in young people, and exposure to the SSHBs of others may be of particular importance. However, systematic research around this is limited and findings are mixed, so a comprehensive review of findings to date was conducted.

Method

ISI Web of Knowledge, PsycInfo/PsycArticles, MEDLINE/PubMed and Embase (all years) were systematically searched in February 2012 and then again in November 2013, using a list of thirty-seven keywords. Reference sections of relevant papers were also hand-searched.

Results

Eighty relevant papers met the inclusion criteria and were included in the final review. Meta-analysis was not feasible due to the diversity of variables investigated, research methods employed and analyses undertaken. Considerable evidence was nevertheless found that children's and adolescents' SSHBs are positively associated with such behaviours in people they know, and this was true of samples from a range of countries, in a variety of settings.

Conclusions

Findings are discussed in relation to methodological issues and implications for suicide and self-harm prevention. Although it is clear that associations exist between children and adolescents' SSHBs and those of people they know, questions remain around where associations lie, and around the role of perceptions in apparent associations, as much of the research relies on self-reported exposure to others' behaviours (which may be susceptible to

error). Research which addresses such questions is required to help inform prevention strategies.

2.2 Introduction

As argued in Chapter 1, SSHBs appear to be amongst the many human behaviours which are susceptible to social influence. The existence of clusters of SSHBs in time and space (Haw, Hawton, Niedzwiedz & Platt, 2013) provides evidence for the co-occurrence of such behaviours across individuals, and the transmissible nature of such behaviours is further evidenced by the increase in suicide attempts following widespread report of high-profile suicides (e.g., Niederkrotenthaler, Fu, Yip, Fong, Stack, Cheng & Pirkis, 2012), and the contagion-like spread of such behaviours within shared environments (e.g., Brent, Kerr, Goldstein, Bozigar, Wartella & Allan, 1989). Theoretical models of suicidal behaviour such as the Integrated Motivational-Volitional model (IMV; O'Connor, 2011) highlight social aspects of an individual's engagement in suicidal behaviours (see Chapter 1), and evidence suggests that the effects of these social factors on the SSHB of young people may be particularly powerful (e.g., Haw, Hawton, Niedzwiedz & Platt, 2013; Phillips & Cartensen, 1986).

A large body of literature suggests that young people may be particularly susceptible to influence from their social environment (e.g., Brechwald & Prinstein, 2011). At the neurological level, an increase in growth of white matter occurs during adolescence (see Blakemore and Choudhury, 2006), which has been implicated in such socially-driven processes as empathy (Parkinson & Wheatley, 2014). This increase seems particularly prevalent in the prefrontal cortex; the activation of which has been shown to correlate with susceptibility to peer influence in early adolescence (Grosbras, Jansen, Leonard, McIntosh, Osswald, Poulsen, Steinberg, Toro & Paus, 2007). Social relationships undergo distinct changes throughout adolescence, with more time being spent alone or with friends, than with family (Larson & Richards, 1991), and different context-dependent self-concepts are formed (Harter, Waters & Whitesell, 1998). Peer-friendships evolve into more supportive and intimate relationships (Buhrmester, 1990), and romantic relationships start to become important (Steinberg, 1999). It has also been argued that as individuals pass through adolescence, identifying with a social group becomes more important, and group integration is ensured through both assimilation to group norms (as an illustration of cooperativeness and group identity), and differentiation of unique characteristics (to demonstrate their

individuality and respective contribution to the group) (Harris, 1995). It has been suggested that such an increased sensitivity to social stimuli may render adolescents especially susceptible to influence from their social environment, particularly from their peers (see Brechwald and Prinstein, 2011).

Those individuals who are most prone to influence may be at an already heightened risk of engaging in damaging behaviours (Allen, Porter & McFarland, 2006), and risky or health-damaging behaviours may be particularly susceptible to social influence (see Chapter 3), perhaps as a result of the improved self-status afforded by engaging in certain risky behaviours (Brechwald & Prinstein, 2011). Whilst behaviours such as alcohol consumption and smoking might have historically been considered more obvious "status-gaining" behaviours among adolescents, the evolution of "Emo" and "Goth" sub-cultures may be related to a dangerous new trend. Studies such as that conducted by Young, Sweeting and West (2006) have shown that identifying oneself as belonging to the Goth sub-culture may be related to an increased lifetime risk of self-harming or attempting suicide. Further, high regard for these behaviours may not be confined to specific sub-cultures; Heilbron and Prinstein (2010) found evidence that (non-suicidal) self-harming behaviours were perceived as high-status behaviours in general, in early adolescence. Young people's susceptibility to social influence, especially with regard to risky behaviour, together with the evidence that they may be at particularly high risk of SSHBs (e.g., De Leo & Heller, 2004; O'Loughlin & Sherwood, 2005; Owens, Horrocks & House, 2002), argues for the importance of gaining an understanding of the social influences exerted upon these behaviours, in this group.

The current review

Whilst a sizeable literature exists around various social influences on SSHBs generally (including clusters, contagion, media portrayal etc. – see Chapter 1), the findings of those studies which specifically focus on whether the presence of those behaviours in an individual's social environment impacts upon SSHB at the individual level are inconsistent, so it is difficult to gain a thorough understanding of this area. Moreover, it is not always clear whether individuals involved in such research are explicitly aware of the behaviours of others, or whether knowledge is assumed based on presence in a particular geographic location or attendance at a particular school, for example. Consideration of whether or not the relevant others are personally known to the individual (and if so, in what capacity) is also often omitted from reports, making it difficult to gauge whether accurate knowledge is likely, or to determine whether perceptions of unknown others' behaviour is sufficient to influence one's own. A systematic search and comprehensive review of the available

literature, with specific inclusion criteria which would enable synthesis of relevant findings to address these inconsistencies, was therefore deemed necessary.

2.3 Aims

The overarching purpose of the current review was therefore to systematically explore the literature investigating the existence of a relationship between the SSHB of children and adolescents, and that of people in their social context, and to consider the types of research in this area which have been carried out to date. In addition, the review wished to explore possible distinctions in the literature between child and adolescent *perceptions* and *knowledge* of others' SSHBs, as evidence from the social norms literature (which will be discussed in Chapter 3) suggests that individuals' reports of others' behaviour is not always consistent with others' reports of their own behaviour. As such, the literature around the perceived social norms of SSHBs was considered important for inclusion in the current review, in order that a comprehensive review of potential sources of influence and association might be obtained. In summary, the aims of the current review were:

- To investigate whether relationships have been found between children's/adolescents' SSHB and that of people they know, and to broadly examine the features of those relationships, including under what circumstances such relationships exist (e.g., the nature of relationships, moderators/mediators, particular behaviours implicated).
- To identify within the literature, whether perceptions of others' SSHB – and their potential inaccuracies and biases – are considered with regard to associations with children/adolescents' own SSHB, or whether accurate knowledge is routinely assumed.
- To explore whether any specific literature exists around the perceived social norms of SSHB (and their relationship with children/adolescents' own behaviour and attitudes).

2.4 Method

ISI Web of Knowledge, PsycInfo/PsycArticles, MEDLINE/PubMed and Embase (all years) were searched in February 2012, using the following keywords: "self harm social norm", "self-harm social norm", "self injury social norm", "self-injury social norm", "suicid* social norm", "parasuicid* social norm", "self harm social influence", "self-harm social influence", "self injury social influence", "self-injury social influence", "suicid* social influence", "parasuicid* social influence", "self harm friend", "self-harm friend", "self injury friend", "self-injury friend", "suicid* friend", "parasuicid* friend", "self harm family", "self-harm family", "self-injury family", "self injury family", "suicid* family", "parasuicid* family", "self harm peer", "self-harm peer", "self injury peer", "self-injury peer", "suicid* peer", "parasuicid* peer", "self harm contagion", "self-harm contagion", "self injury contagion", "self-injury contagion", "suicid* contagion", "parasuicid* contagion" and "Werther effect". Identical searches to check for any updates in the literature between February 2012 and November 2013 were carried out in November 2013[3].

Papers were included in the current review if they met the following inclusion criteria:

i) They were original, published, peer-reviewed journal articles;
ii) They were written in English;
iii) They reported the investigation of any associations between an individual's SSHB and that of people they know, or any influence of others' SSHB on one's own SSHB[4];
iv) The paper focused on a child and/or adolescent (up to 19 years old) population[5]; and

[3] A broad range of search terms was employed in order to minimise the likelihood of omission of literature as a result of the use of differing terminology across research teams. For example, the author was unaware of any literature specifically exploring the social norms of SSHBs, but it was considered possible that researchers may well have investigated the concept using different terminology.

[4] NB. The "others" to which the paper refers must have been individuals present in the child's/adolescent's social network (i.e. celebrities or fictional characters would not suffice) and the nature of their relationship to those others must have been specified (e.g., "friends" or "relatives"; papers referring only to "people you know" were excluded).

[5] Due to the widespread disagreement over the age at which a child moves into adolescence, and on account of their relative rarity, papers whose sample included pre-adolescent children were still included, but papers whose sample included participants over the age of 19 were excluded, in accordance with the World Health Organisation (2013) and UNICEF (2011) definitions of adolescence.

v) A reasonable standard of statistical analyses was conducted (i.e. inferential statistics were employed), or the paper reported on qualitative data.

The above inclusion criteria reflect some adjustments made to the original criteria as a result of the search process, namely:

i) On locating an unexpectedly large quantity of literature into media and entertainment related associations with SSHB, it was deemed appropriate to exclude papers which only explored influence from/associations with sources not personally known to the individual, e.g., media reports of celebrity suicide, suicide glorifying music videos or the depiction of suicide attempts by fictional characters. Social norms research to date has concentrated only on reference groups in the real-life environment of those concerned, so it was considered appropriate to limit the current criteria to similar restrictions.

ii) Upon in-depth review of the remaining papers, the removal of studies pertaining to general contagion or clusters of behaviours was also deemed appropriate. It was felt that such papers were qualitatively different to those exploring direct associations with, or influences of, the behaviour of specific others. The literature around contagion/clusters for example, looks at broader, community or population-level co-occurrences of behaviour, whilst the literature included in the current review specifically focuses on behavioural correlations with those known to the individuals concerned. Moreover, methods employed were highly dissimilar, with the contagion/clusters literature often employing statistical modelling techniques or more technical time-space cluster analysis methods. A brief summary of the contagion/cluster literature can be found in Chapter 1.

After removal of duplicates from the initial database searches, titles were screened and those clearly not relevant were rejected. The remaining abstracts were reviewed and again, those clearly not relevant were rejected. The remaining papers were then read in full, and those which met the above criteria were selected for inclusion. The reference sections of these papers were also hand-searched to ensure that all relevant papers had been captured. Figure 2.1 illustrates the review process, along with numbers of papers identified at each stage. Following selection of the final papers for inclusion, a randomly selected 20% of those papers were double-checked by the primary PhD supervisor, along with a randomly selected 20% of those full-text papers which were excluded. Abstract-only assessment of this selection yielded 87.9% agreement. The full texts of the 12.1% upon which there was

disagreement, were then read in full by the primary supervisor. After full text assessment, 100% agreement was reached.

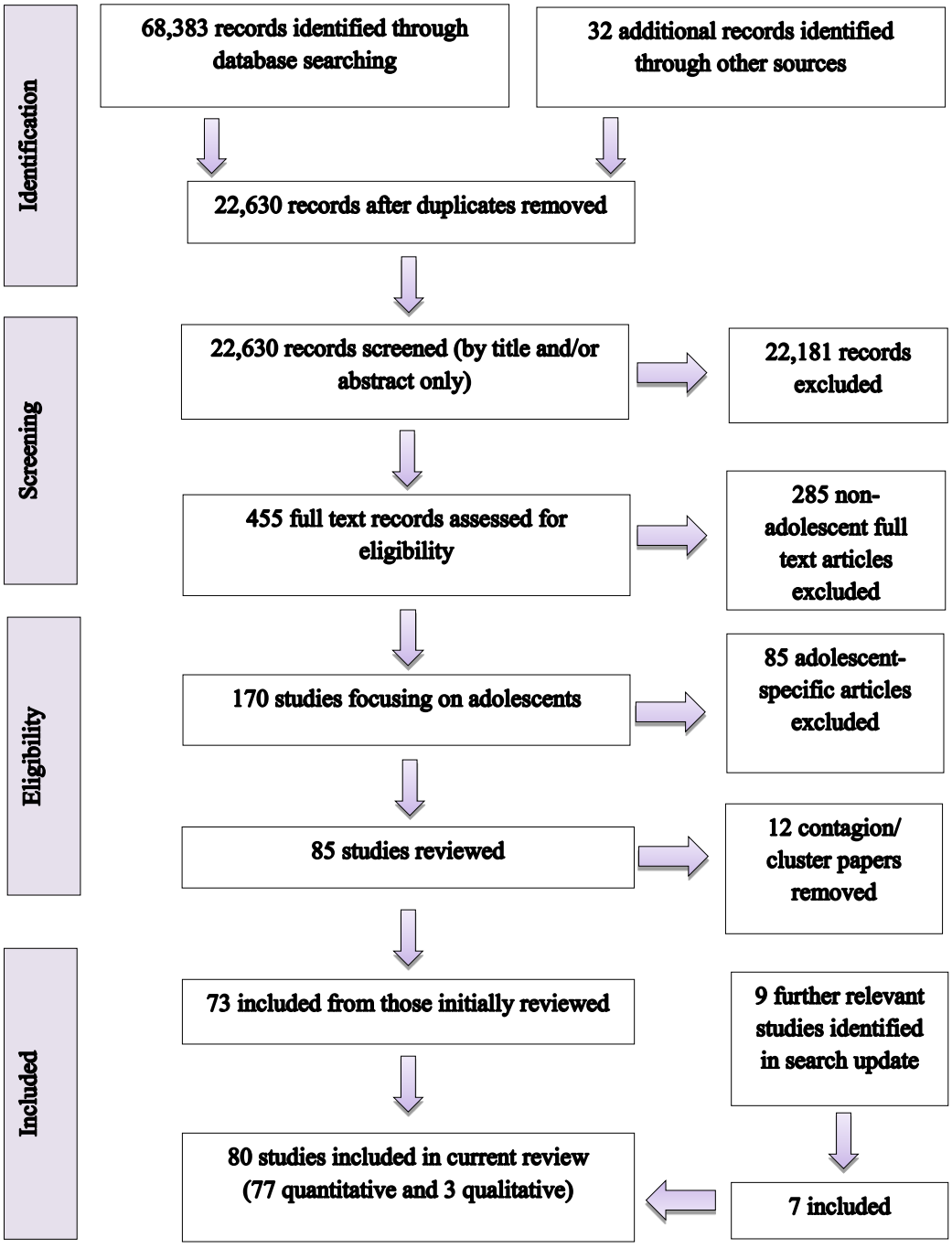

Figure 2.1 Stages of review process

2.5 Results

The eighty papers selected for inclusion in this review were so diverse in their methods, measures and analyses, and both the children's/adolescents' behaviours and the potentially influencing/associated behaviours of others were so varied, that a meta-analysis was not feasible. Instead, it was deemed more appropriate to present the findings in narrative form, with summary tables (see Tables 2.1 to 2.4). Where appropriate, this review has used the terms used in the papers themselves (e.g., some papers refer to "friends", others refer to "peers").

2.5.1 Study characteristics

2.5.1.1 Behaviours measured

A broad range of behaviours were investigated, both in terms of the potentially influencing/associated behaviours engaged in by other people, and the measured behaviour of the children/adolescents themselves. In each case, behaviours measured ranged from thoughts of self-harm, through self-harm, suicide plans, threats and attempts, to death by suicide.

2.5.1.2 Sources of influence/association

A diverse range of "others" by whom influence may be exerted or with whose behaviour children's/adolescents' behaviour might be associated was also found, and papers used a variety of terminology to refer to potentially similar groups (e.g., close friends, friends, peers, schoolmates, parents, family members, relatives).

2.5.1.3 Target population

The target adolescent populations varied widely, both in terms of demographics (e.g., ages, location) and situational context (e.g., setting, psychiatric status).

As per the inclusion criteria, all studies included in the review looked at a child/adolescent population, but within that, a broad variety of age ranges were studied. Some studies focused only on one or two school years/grades, others looked at larger age ranges, with some studies including anyone under the age of 19. Furthermore, the inclusion of some longitudinal studies meant that at certain time points, participants may no longer be

considered adolescents as defined above, but participants involved in all of the studies currently reviewed ranged between 5 and 19 years of age at the start of the respective study[6].

Whilst the majority of studies were carried out in a general school or community context, samples were also taken from general hospital settings, in- and outpatient psychiatric settings, special treatment facilities, social service settings and residential and non-residential crisis services, providing a range of contexts with different parameters, within which to study behavioural influence/associations.

Aside from the diverse contextual settings, studies were conducted internationally, and in a mixture of urban and rural environments. Countries of origin included the UK and Ireland, the US, Australia, Belgium, Cambodia, Canada, China (mainland and Hong Kong), Ethiopia, Finland, Iceland, India, Israel, Korea, the Netherlands, New Zealand, Nicaragua, Norway, Slovenia, South Africa, Sweden, Switzerland and Taiwan.

2.5.1.4 Methods and analyses

The range of methods employed and analyses conducted across studies was diverse. Measures of children's/adolescents' and others' potentially influencing/associated behaviours included: child/adolescent reports of both (e.g., through questionnaires, standardised measures or interviews), third party reports, analysis of official records/national statistics, secondary analysis of previously collected data, psychological autopsy, observation, and a mixture of child/adolescent report and one or more other method(s). Analyses ranged from simple t-tests and odds ratios, through (mainly logistic) regression, to the generation of complicated statistical models.

2.5.2 Family associations

2.5.2.1 Summary

Twenty-one of the papers reviewed looked only at the relationship between the SSHB of family members and adolescents' own – details of which can be found in Table 2.1. The majority of these papers looked at family in general (first- and second-degree relatives, first-degree relatives only, or not specified), but a handful focused specifically on one or both

[6] NB. A handful of studies do not provide ages, referring only to "adolescents" and in some cases, providing a mean age. These have been included on the assumption that accurate terminology would be used in published papers.

parents. Unlike what was typical of studies overall, these papers looked mainly at child/adolescent suicidal ideation or attempts, with only a small minority incorporating suicide deaths or a cumulative scale of general suicidality, and one which looked specifically at self-poisoning (intent not specified). Whilst this section will refer to "self-harming and suicidal behaviours" throughout, no paper actually reported specifically on self-harm. However, as some studies used cumulative scales of behaviours (e.g., Cerel, Fristad, Weller & Weller, 1999) or refer to self-damaging behaviours in general, with unspecified intention (e.g., Kerfoot, 1988), it is possible that non-suicidal self-harm was captured, so it was not ruled out in the current review.

Overall, there was evidence for a positive association between children's/adolescents' SSHB and that of their family members, with eighteen of the twenty-one papers reporting some kind of influence or association. Of course the sheer number of studies reporting a particular result cannot be used as evidence for that particular finding over and above any other, due to differing quality between pieces of research and diversity of samples, but it is worth noting that as is the case throughout the current review, only a small minority of papers (i.e. three out of twenty-one) in this section failed to find any associations between behaviours or differences between groups.

The main findings from these papers included:

i) Some SSHBs were positively associated with those behaviours in family members, such that those with a family history of SSHBs were more likely to engage in such behaviours than those without.
ii) Controlling for psychiatric disorder makes little difference to the associations found.
iii) Associations between children's and adolescents' SSHBs and their mothers' behaviour seem to be stronger than associations with their fathers' behaviour.

2.5.2.2 Samples

Some of these studies comprised large, community samples (e.g., An, Ahn & Bhang, 2010; Cerel & Roberts, 2005) spanning broad age ranges (e.g., Bridge, Brent, Johnson & Connolly, 1997; Cerel & Roberts, 2005), thus increasing the chance of reasonably representative results. Increasing generalisability further is as the range of settings from which data was obtained, including schools (e.g., Gartrell, Jarvis & Derksen, 1993), the

Table 2.1: Papers looking at associations with family members

Authors	Sample (setting)	Design/ method	Child/ adolescent behaviour	Behaviour of others	Reference group	Relevant findings
An, Ahn & Bhang (2010)	2,965 Korean 15-18 year olds and their parents (general/ community)	National survey, cross-sectional	Suicidal ideation	Suicidal ideation	Parents	A history of parental suicidal ideation was positively related to own suicidal ideation.
Bridge, Brent, Johnson & Connolly (1997)	58 US 13-19 year olds and their relatives (general/ community)	Semi-structured interviews, psychiatric assessment, cross-sectional	Suicide attempt	Suicide attempt	Family	Suicide attempts were higher in relatives of those who had attempted suicide than relatives of those who had no history of psychiatric disorder.
Cerel, Fristad, Weller & Weller (1999)	26 5-17 year olds whose parents died by suicide, and 332 whose parents died by other causes in the US (general/ community)	Questionnaires and diagnostic interviews 1 month post-death, with longitudinal follow-ups at 6, 13 and 25 months	4 point scale of suicidality (including ideation, intent, plans and attempts)	Suicide death	Parents	No differences were found in suicidality between those whose parents died by suicide and those whose parents died by other causes.

Cerel & Roberts (2005)	5,856 US 11-18 year olds (general/ community)	Use of data from the National Longitudinal Survey of Adolescent Heath	Suicidal ideation, suicide attempt	Suicide attempt, suicide death	Family	Those with a family history of attempted suicide or suicide death were more likely to have suicidal ideation or to attempt suicide themselves, than those without.
Garfinkel, Froese & Hood (1982)	505 children and adolescents (mean age 15.3 for girls, 14.7 for boys) admitted for suicide attempt and 505 matched controls in Canada (children's hospital emergency room)	Cross-sectional comparisons of data taken from official records	Suicide attempt	Suicide attempt, death	Family	Children and adolescents admitted to emergency room for suicide attempts had more suicide attempts and deaths in their family than those admitted for other reasons.
Gartrell, Jarvis & Derksen (1993)	229 7^{th}-9^{th} grade Alberta Indians in Canada (schools)	Cross-sectional self-report questionnaires	Suicidal ideation, attempt	Suicide death in the household	Family	Significantly more of those with a suicide in their household had both considered and attempted suicide than those without.
Goldstein, Birmaher,	405 7-17 year olds with bipolar	Cross-sectional; diagnostic and	Suicide attempt	Suicide attempt	Family	Those who had attempted suicide were more likely than those who had

Axelson, Ryan, Strober, Gill, Valeri, Chiappetta, Leonard, Hunt, Bridge, Brent & Keller (2005)	disorder in the US (general/ community, and clinical referrals)	other clinical measures, plus questions on lifetime suicidality (as part of a larger, longitudinal study)				not, to have a family history of suicide attempt.
Gould, Fisher, Parides, Flory & Shaffer (1996)	120 of 170 consecutive suicide deaths 19 years and under and 147 controls in the US (general/ community)	Interviews with informants of those who died by suicide and with controls and their informants (cross-sectional)	Suicide death	Suicide attempt, death	Family	Those who died by suicide were significantly more likely than controls to have a family history of suicidal behaviour, and the increased risk was beyond the risk contributed by their own psychopathology.
Johnson, Brent, Bridge & Connolly (1998)	Relatives of 62 13-19 year old US suicide attempters and 70 non-suicidal psychiatric controls (in- and out-patient	Psychiatric assessment and self-report questionnaires, cross-sectional	Suicide attempt	Suicide attempt, death	Family	Familial suicide death and attempt rates were higher in relatives of attempters than controls. When Axis I disorder was controlled for, there was no difference, but when Axis I disorder and personality disorder

	psychiatric services)					were adjusted for, rates were higher again in relatives of attempters.
Kebede & Ketsela (1993)	519 12-18 year old Ethiopian high-school students (schools)	Self-report questionnaires, cross-sectional	Suicide attempt	Suicide death	Family	Family history of suicide was not found to be associated with own suicide attempts.
Kerfoot (1988)	100 7-15 year olds referred to psychiatric services following self-poisoning, plus 50 psychiatric controls in England (psychiatric inpatient units)	Psychiatric assessments, and social history taken (from parents), cross-sectional	Self-poisoning	Self-poisoning	First-degree relatives	The biggest (significant) difference between self-poisoners and controls was found in the incidence of previous self-poisoning by a first-degree relative (often mothers).
Marcenko, Fishman & Freidman (1999)	120 16 year old high-school students in the US (schools)	Cross-sectional, self-report questionnaires completed at interview	Suicidal ideation	Suicide death	Family	Suicidal ideators were no more likely than non-ideators to have had a family member die by suicide.
Marusic, Roskar	184 senior high	Self-report	Suicidal	Suicide	Family	Suicide attempt in family was

& Hughes (2004)	school students with a mean age of 18 years in Slovenia (schools)	questionnaires, cross-sectional	thoughts, plans, attempts	attempt, death		positively correlated with own suicide plans, and when split by gender, family suicide attempt was correlated with thoughts, plans and attempts in males (but not females). No correlations were found with family suicide deaths.
McKenry, Tischler & Kelley (1982)	92 12-18 year old suicide attempters, 46 matched controls and their parents, in the US (general emergency room)	Self-report questionnaires, cross-sectional	Suicide attempt	Suicidal thoughts, threats, attempts	Family	Adolescent suicide attempters reported more suicidal behaviour in the family than did controls, but only attempters' mothers' reports reflected this.
Myers, Burke & McCauley (1985)	348 5-13 year olds admitted to a psychiatric unit over 4 years in the US (psychiatric inpatient unit)	Chart review, with various sub-aspects, cross-sectional	"Suicidal behaviour" (using a suicidal behaviour scale)	"Suicidal behaviour" (not specified)	Family	Suicidal behaviour in the family differentiated the suicidal group from non-suicidal controls.
Pfeffer (1984)	101 6-12 year olds	Cross-sectional	Level of	Level of	Parents	Mothers of suicidal children scored

	in the US (schools)	semi-structured interviews with children and their parents (questionnaires completed from responses)	suicidality (on a 6-point scale)	suicidality (on a 6-point scale)		higher on the 6-point suicidality scale than mothers of non-suicidal children. Fathers did not differ. Suicidal children were more likely to have a mother with higher suicidal scores than were non-suicidal children.
Pfeffer, Conte, Plutchik & Jerrett (1980)	39 6-12 year old psychiatric patients in the US (psychiatric outpatient unit)	Cross-sectional measures completed by therapists	"Suicidal behaviour" (as judged by therapists)	Ideation, threats, attempts, death	Parents	Parents of "suicidal" children had significantly more suicidal ideation than parents of "non-suicidal" children, but they did not differ in threats, attempts or deaths.
Pfeffer, Normandin & Kakuma (1994)	123 children (mean age 9-10) and 488 of their first-degree and 1,062 of their second-degree relatives, in the US (psychiatric inpatients and community	Self- report interviews (questionnaires) with children and parents, family history interviews, and 6-8 year longitudinal	Suicidal ideation, attempt	Suicide attempt, death	Family (first- and second-degree relatives)	More first-degree relatives of those with suicidal ideation or attempts reported suicide attempt than did relatives of those without (including 50% of mothers of suicidal children). No difference found for suicide death or in second-degree relatives.

	controls)	follow-ups with parents (not reported)				
Pfeffer, Normandin & Kakuma (1998)	133 children (mean age 16-17), 650 of their first-degree and 1,174 of their second-degree relatives, in the US (psychiatric inpatients and community controls)	Self-report interviews (questionnaires) with children and parents who were originally studied 6-8 years previously (not reported)	Suicidal ideation, attempt	Suicide attempt, death	Family (first- and second-degree relatives)	Suicide attempts of mothers were more prevalent among adolescents with a lifetime history of suicide attempt. History of own suicide attempt was more than 7 times higher in those whose mothers had a history of suicide attempt.
Pfeffer, Zuckerman, Plutchik & Mizruchi (1984)	101 6-12 year old school children and their parents, in the US (schools)	Cross-sectional, semi-structured interviews with children and their parents (separately)	Suicidal ideas, threats, attempts	Suicidal ideas, threats, attempts	Parents	Suicidal behaviour scores were higher for mothers of children with any suicidal tendencies than for those without, but fathers' scores did not differ.
Tischler & McKenry (1982)	46 12-18 year old suicide attempters,	Self-report questionnaires,	Suicide attempt	Suicidal ideation	Parents	Mothers of suicide attempters had higher suicidal ideation scores than

	46 non-suicidal matched controls and the parents of both groups, in the US (emergency department of general hospital)	cross-sectional		mothers of non-attempters, despite having similar self-image. No difference was found for fathers (despite attempters' fathers having lower self-esteem than fathers of non-attempters).

community (e.g., Gould, Fisher, Parides, Flory & Shaffer, 1996), psychiatric inpatient units (e.g., Kerfoot, 1988) and general hospital emergency rooms (e.g., McKenry, Tishler & Kelley, 1982). Although the vast majority of studies were undertaken in the US, evidence of associations was also found in Korea (An, Ahn & Bhang, 2010), Canada (Gartrell, Jarvis & Derksen, 1993), England (Kerfoot, 1988) and Slovenia (Marusic, Roskar & Hughes, 2004), suggesting that a relationship between children's/adolescents' behaviour and that of their family members, is a multi-continental observation.

2.5.2.3 Methods and measurement

A major strength of the overall evidence for an association between child/adolescent SSHB and that of their family members is the range of measurements through which similar results were consistently found. Information on the target behaviour of children/adolescents was obtained predominantly through self-report (e.g., Gartrell, Jarvis & Derksen, 1993; McKenry, Tishler & Kelley, 1982), but other methods were also employed, including hospital admission information (e.g., Tishler & McKenry, 1982), therapist ratings (Pfeffer, Conte, Plutchik & Jerrett, 1980) and clinical records (e.g., Johnson, Brent, Bridge & Connolly, 1998). In some cases multiple methods were used (Bridge, Brent, Johnson & Connolly, 1997; Goldstein, Birmaher, Axelson, Ryan, Strober, Gill, Valeri, Chiappetta, Leonard, Hunt, Bridge, Brent & Keller (2005). Similarly, information on the behaviour of the family was obtained through varied sources, including adolescent report (e.g., Gartrell, Jarvis & Derksen, 1993), family report (e.g., Bridge, Brent, Johnson & Connolly, 1997), therapist ratings (Pfeffer, Conte, Plutchik & Jerrett, 1980), and sometimes a mixture (e.g., McKenry, Tishler & Kelley, 1982).

2.5.2.4 Other contributory factors: Psychopathology

Some papers took into account one of the most cited independent risk factors – namely, psychopathology – when considering the relationship between children's and adolescents' suicidal behaviours and those of their family members. Such papers continued to find associations between children's/adolescent's behaviour and that of their family, irrespective of this extra variable. For example, Gould, Fisher, Parides, Flory and Shaffer (1996) found that the increased risk of suicide in those with a family history of suicidal behaviour was beyond that contributed by psychopathology, and Johnson, Brent, Bridge and Connolly (1998) found that when Axis I and II disorders were controlled for, rates of suicide attempts and deaths remained higher in relatives of suicide attempters than in relatives of controls (although controlling only for Axis I disorder reduced this difference, suggesting that personality disorder alone, was in some way relevant in this particular sample). Thus, this

evidence suggests that while other factors cannot be ruled out, shared psychiatric disorder does not entirely account for the apparent associations between child/adolescent behaviour and their families' behaviour.

2.5.2.5 No associations found

Three papers found no association between children's/adolescents' SSHB and that of their family members (Cerel, Fristad, Weller & Weller, 1999; Kebede & Ketsela, 1993; Marcenko, Fishman & Friedman, 1999). Notably, all three looked at the actual *death* of a family member by suicide – one specifically at the suicide death of a parent (Cerel et al., 1999) and the others at suicide deaths in the family in general. Perhaps due to the relative rarity of suicide deaths, most studies in the field tend to look at suicidal behaviour more generally (attempts, ideation etc.).

2.5.3 Friend/peer associations

2.5.3.1 Summary

Fifteen papers looked at the relationship between the SSHB of friends or peers and adolescents' own – see Table 2.2 for details. Papers varied in their terminology (friends, close friends, peers, acquaintances etc.) and definitions were rarely given, but for the purpose of this review, it was deemed appropriate to group these referents together into one non-family section. It should be noted here that this section reviews papers relating only to "adolescents" or "high-school pupils", as apparently no research has been conducted into the effects of/associations with SSHBs of friends in younger children. Papers in this section covered self-harm through to suicide attempt in adolescents, and self-harm through to suicide death in friends.

As with the family papers, evidence was repeatedly found for positive associations between the SSHBs of friends/peers and that of adolescents, with twelve of the fifteen finding some kind of association.

The main findings included:

i) There was a positive association between adolescent suicidal behaviour and that of their friends, such that:
    a. Those who report having friends who engage in suicidal behaviour are at an increased risk of engaging in suicidal behaviour themselves, and;

b. Those who engage in self-harming behaviour are more likely to report having friends who also do so.

ii) Friends' self-harm is a predictor of adolescents' later self-harm.

iii) Associations between behaviours seem to be stronger in close friends than in more distant acquaintances.

iv) Adolescents' self-harm is positively associated with later perceptions of friends' self-harm, and perceptions of friends' self-harm are positively associated with adolescents' later self-harm.

2.5.3.2 Samples

As with the family studies discussed previously, the evidence for some link between an adolescent's SSHB and that of their friends/peers is reinforced by several strengths of the research overall. Again, large sample sizes (e.g., Liu, 2008; You, Lin, Fu & Leung, 2013) and wide age ranges (e.g., Cerel, Roberts & Nilsen, 2005; Sidartha & Jena, 2006) increase the likelihood that results are generalisable across adolescents. The albeit smaller range of countries sampled than in the family studies, further assists in the potential generalisability of findings, with participants recruited from the US (e.g., Prinstein, Boergers & Spirito, 2001), India (Sidartha & Jena, 2006), Hong Kong (Ho, Leung, Hung, Lee & Tang, 2000), Australia (Hasking, Andrews & Martin, 2013) and Belgium (Claes, Houben, Vandereycken, Bijttebier & Muehlenkamp, 2010). This suggests that associations found between behaviours are not specific to a particular country or indeed continent.

2.5.3.3 Other contributory factors

Although some kind of relationship between adolescents' behaviour and that of their friends was repeatedly found, one area in which the results of papers in this section particularly varied was in relation to psychiatric disorder or psychopathology. Some papers for instance, reported similar SSHBs in those with and without friends who engage in those behaviours, despite differing baseline rates of psychopathology (e.g., Brent, Moritz, Bridge, Perper & Canobbio, 1996; Brent, Perper, Moritz, Allman, Friend, Schweers, Roth, Balach & Harrington, 1992), suggesting that psychopathology (namely depression in these cases) is unrelated to any potential relationship between behaviours. Other papers however, provided conflicting evidence, with Liu (2006) reporting that depression *weakened* the association between friends' suicide attempts and adolescents' own suicide attempts (although this effect only reached significance in boys). Contradictory still are the findings of Prinstein, Boergers and Spirito (2001), who report that depression in fact *increased* the association between adolescents' suicidal ideation and behaviour and that of their friends (though a

Table 2.2: Papers looking at associations with friends/peers

Authors	Sample (setting)	Design/ method	Child/ adolescent behaviour	Behaviour of others	Reference group	Relevant findings
Alfonso & Kaur (2012)	1,748 high school pupils in 6th and 8th grade, in the US (schools)	Cross-sectional, self-report questionnaires	Self-harm	Self-harm	Friends and acquaintances	Those with a friend who self-harmed (and had lowest belief in their possibilities) were at the greatest risk of self-harm.
Brent, Moritz, Bridge, Perper & Canobbio (1996)	166 "adolescent" friends and acquaintances of 26 people who died by suicide, plus 175 matched controls in the US (general/ community)	Longitudinal (3 time points) interviews and clinical assessment	Suicide attempt	Suicide death	Friends	There was no difference at follow-up in suicide attempts between those with and without friends who died by suicide (despite higher baseline psychopathology in the exposed group).
Brent, Perper, Moritz, Allman, Friend, Schweers,	58 friends of 10 "adolescents" (mean age 17.5)	Semi-structured interviews and questionnaires	"Suicidal behaviour" (ideation,	Suicide death	Friends and acquaintances	There was no difference in suicide attempts in friends of people who had died by suicide and

Roth, Balach & Harrington (1992)	who died by suicide and 58 controls in the US (general/ community)	(cross-sectional)	plan, attempt)			unexposed controls (despite a greater risk of depression in the former).
Brent, Perper, Moritz, Allman, Schweers, Roth, Balach, Canobbio & Liotus (1993)	146 friends and acquaintances of 26 "adolescents" who died by suicide (mean age 17.8) and 146 matched controls in the US (general/ community)	Cross-sectional, self-report measures	"Suicidal behaviour" (ideation, plan, attempt)	Suicide death	Friends and acquaintances	Friends of those who died by suicide were no more likely than controls to show an increase in new-onset suicide attempts, but suicidality (ideation with plans or attempts) was increased. This was however, highly associated with new-onset depression.
Cerel, Roberts & Nilsen (2005)	5,852 US 11-18 year olds (general/ community)	Cross-sectional analysis of data from the National Longitudinal Survey of Adolescent Heath	Suicidal ideation, suicide attempt	Suicide attempt, suicide death	Friends	Friends' suicide attempt and suicide death was related to an increased likelihood of own suicidal ideation and suicide attempt.

Claes, Houben, Vandereycken, Bijttebier & Muehlenkamp (2010)	150 Belgian high-school students with a mean age of 15.56 years (school)	Self-report questionnaires, cross-sectional	Self-harm	Self-harm	Friends	Those who self-harm were more likely than were those who do not self-harm, to know other people who self-harm.
De Luca, Wyman & Warren (2012)	1,618 12-19 year old Latina girls in the US (general/ community)	Use of cross-sectional data from the National Longitudinal Study of Adolescent Health	Suicidal ideation, suicide attempt	Suicide attempt	Friends	Both suicidal ideation and attempts were associated with having a friend who had attempted suicide.
Hasking, Andrews & Martin (2013)	2,637 (at time 1) and 1,973 (at time 2) 12-18 year old Australian school pupils (schools)	Longitudinal (1 year) self-report surveys	Self-injury	Self-injury	Friends	Having friends who self-injured differentiated those who self-injured at follow-up from those who did not, and predicted the onset of self-injury between time points. Life events and previous thoughts of self-injury moderated the relationship between peers' self-injury and onset of self-

						injury.
Ho, Leung, Hung, Lee & Tang (2000)	2,704 high school students and 2,068 of their parents in Hong Kong (schools)	Cross-sectional self-report questionnaires (with some information from parents)	"Suicidal behaviour" (one of four items)	Suicide attempt, death	Peers	Peers of suicide attempters and deaths had higher prevalence of suicidal behaviour than those without exposure, and peers of attempters had higher prevalence than peers of those who died. Risk was higher among close friends than acquaintances.
Liu (2006)	5,589 (at wave I) and 4,285 (at wave II) high school students (ages not stated) in the US (schools)	Cross-sectional and longitudinal analysis of data taken from the National Longitudinal study of Adolescent Health	Suicide attempt	Suicide attempt	Friends	At wave I, friends' suicide attempts were related to own attempts, especially at lower levels of depression. At wave II, suicide attempts were more likely in those reporting suicide attempts or deaths by friends, and again this relationship was weakened by depression (particularly in boys).
Prinstein, Boergers & Spirito (2001)	527 9-12th graders in the US (schools)	Self-report questionnaires	Suicidal ideation, behaviour	Talking about self-harm or	Peers	Own suicidal behaviour was positively associated with friends' suicidal behaviour, particularly

			(not specified)	suicide, suicide attempt		when accompanied by other stressors or depression.
Prinstein, Heilbron, Guerry, Franklin, Rancourt, Simon & Spirito (2010)	Study 1 – 377 6-8th graders in the US (schools) Study 2 -140 12-15 year old psychiatric inpatients in the US (psychiatric unit)	Study 1 – Longitudinal (1 year) self- and friend-report Study 2 – Longitudinal (9 and 18 months) self-report	Self-harm	Self-harm	Friends	Study 1 – Best friends' reported self-harm was a predictor of own self-harm at time 2, moderated by gender and grade (girls, 6th graders). Study 2 – Own self-harm at time 0 was positively associated with higher levels of perceived self-harm in friends at 9 months, and perceptions were positively associated with own self-harm at 18 months. Again, effects were moderated by gender.
Sidhartha & Jena (2006)	1,205 12-19 year old high-school students in India (schools)	Semi-structured self-report questionnaires (cross-sectional)	"Non-fatal suicidal behaviour"	Unspecified "suicide"	Friends	A history of suicide in friends was a risk factor for own suicidal behaviour.
Watkins & Gutierrez	54 14-18 year old	Self-report	Suicidal	Suicide death	Friends	No significant differences were

(2003)	high-school students in the US (schools)	questionnaires (cross-sectional)	ideation, "behaviours"			found between those who were or were not exposed to suicide in friends, on suicidal ideation or behaviours.
You, Lin, Fu & Leung (2013)	5,787 12-18 year old Hong Kong school pupils (schools)	Longitudinal (6 months) self-report questionnaires	Self-harm	Self-harm	Friends	Best friend's and friendship group's self-harm predicted own self-harm, and own self-harm predicted friendship group's self-harm (i.e. self-harming youth tended to join peer groups who self-harmed).

relationship did remain after controlling for depression); Ho, Leung, Hung, Lee and Tang (2000) who also report that psychiatric disturbances increased the relationship between exposure to suicidal behaviour and suicidal behaviour in adolescents; and Brent Brent, Perper, Moritz, Allman, Schweers, Roth, Balach, Canobbio and Liotus (1993) who similarly found that an increase in new-onset suicidality following the suicide death of a friend, was highly associated with new-onset depression. Whilst these varied findings are inconsistent and somewhat difficult to interpret as a result, they nevertheless allude to the potential importance of considering psychopathology – especially depression – when investigating the relationship between adolescent SSHB and that of others.

An interesting finding, which at first glance is difficult to explain, is that gender may be related to knowing someone who has engaged in SSHBs. Studies have found that girls may be more likely than boys (e.g., Ho, Leung, Hung, Lee & Tang, 2000) or less likely than boys (e.g., Prinstein, Boergers & Spririto, 2001) to have friends who have engaged in SSHBs. It may even be that gender actually has some influence over the strength of, or even existence of, associations between own SSHB and that of one's friends. Prinstein, Heilbron, Guerry, Franklin, Rancourt, Simon and Spirito (2010) for example, found that the relationship between adolescents' self-harming behaviour and their best friends' was moderated by gender, such that associations were only found for girls. Whilst it is widely accepted that girls are more prone to self-harm than boys (an observation which the evidence currently under review supports; e.g., Prinstein et al., 2010; Sidartha & Jena, 2006), it is unclear why this should be related to their friends' behaviour. Prinstein et al. (2010) suggest several explanations based around the differing relationships between female friend groups compared to male friend groups. As is usually the case, however, contradictory evidence exists, with other studies finding no difference in the strength of relationship between friends' suicide attempts and an adolescent's own, between boys and girls (e.g., Liu, 2006).

As well as gender, the same authors (Prinstein, Heilbron, Guerry, Franklin, Rancourt, Simon & Spirito, 2010) also found a similar moderating effect of grade, with only the youngest grade showing associations with friends' behaviour at follow-up (sixth grade, versus seventh and eighth). They posit increased susceptibility to conformity in preadolescents as a possible explanation for this effect, but offer no explanation for the sudden drop in conformity between two grades. Age-related differences are discussed further throughout the current thesis. None of the other studies included in this review reported similar effects of age or gender, so it is possible that these effects were specific to Prinstein et al.'s (2010) sample. It is also possible however, that these authors are the only ones to have looked at these

potential moderators systematically, and where other authors report more straightforward relationships between variables, moderators may have been missed.

In support of this idea, other studies have found entirely different moderators present, which are relatively rarely investigated. For instance, Prinstein, Boergers and Spirito (2001) found that the relationship between adolescents' own suicidal behaviour and that of their friends increased when there was high levels of family dysfunction, low levels of social acceptance and high levels of depression. Also, Hasking, Andrews and Martin (2013) found that adverse life events and previous thoughts of self-harm both had a moderating effect on the relationship between adolescents' own self-harm and having friends who self-harmed. Of course these interactions can only be found if they are tested for, and it is impossible for any one study to test for all possible interactions, so it may be that a whole host of variables moderate or mediate the relationship between behaviours.

2.5.3.4 No associations found

Three papers found no differences in the behaviour of those with and without friends who engage in the relevant behaviours, or associations between the behaviours of adolescents and that of their friends. Brent, Perper, Moritz, Allman, Friend, Schweers, Roth, Balach and Harrington (1992) reported no difference in suicide attempts between those with a friend who died by suicide and those without, despite higher depression scores in the former. Longitudinal follow-ups with respondents found similar results, with no differences found between the groups again despite higher psychopathology scores in those with friends who died by suicide (Brent, Moritz, Bridge, Perper & Canobbio, 1996). One final study supports these results, finding no difference in suicidal ideation or (unspecified) suicidal behaviour between those with and without exposure to the suicide death of a friend (Watkins & Gutierrez, 2003). Notably, all of the above studies, in keeping with the results of those which found no associations between behaviours in the family section (section 2.5.2), focused only on friends who actually *died* by suicide.

2.5.4 Multiple sources of association

2.5.4.1 Summary

By far the largest section in this review consists of papers exploring associations with multiple sources – that is, papers which explored associations with more than one reference group (e.g., friends, family, romantic partners). Forty-one papers did not look at individual reference groups, instead looking at the relationship between SSHB in multiple others, and

children's or adolescents' own. Summaries of these papers can be seen in Table 2.3. The full range of behaviours considered in this review were explored in this section, from thoughts of self-harm through to dying by suicide, both for the children/adolescents themselves, and for those with whom associations were explored.

An overwhelming majority of thirty-nine of these multiple reference group papers found positive associations between children's/adolescents' SSHB and that of multiple reference groups, whist only two found no associations whatsoever.

Of those reporting associations, findings included:

i) Adolescents' SSHB was positively associated with SSHBs in friends, family and romantic partners, such that:
    a. Those with family or friends who had engaged in suicidal behaviour were at a higher risk than those without, of engaging in SSHB themselves, and;
    b. Those who engaged in SSHB were more likely than those who did not, to have friends or family who also engaged in SSHB.
ii) Suicidal behaviour in friends or family predicted later SSHB in adolescents.
iii) Suicidal behaviour in friends or family was the strongest risk factor for suicidal behaviour in adolescents.
iv) Those who self-harmed reported more positive views of self-harm in their friends than did those who did not self-harm.
v) Positive views of self-harm in friends and family were positively associated with adolescents' own self-harm.

2.5.4.2 Samples

As this is such a large section, a huge range of demographics were captured, with participants ranging in age from 9 to 19 years, and studies having been carried out in sixteen different countries including Scotland, England, Ireland, the US, China, Switzerland, Norway, Australia and Slovenia. Samples were usually large, with many studies sampling in their thousands; for example one longitudinal paper which reports the follow-up of a massive 15,197 of its original 20,745 adolescents (Feigelman & Gorman, 2008). Although most studies were undertaken in school settings (e.g., De Leo & Heller, 2004; Tomori, 1999), samples were also taken from a range of other settings, including the general community (e.g., Feigelman & Gorman, 2008), crisis services (e.g., Rotheram-Borus, Walker & Ferns, 1996), general hospitals (e.g., Razin, O'Dowd, Nathan, Rodriguez,

Table 2.3: Papers looking at associations with multiple sources

Authors	**Sample (setting)**	**Design/ method**	**Child/ adolescent behaviour**	**Behaviour of others**	**Reference group**	**Relevant findings**
Ali, Dwyer & Rizzo (2011)	2,209 US 7-12th graders (general/ community)	Use of data from the National Longitudinal Survey of Adolescent Heath	Suicidal ideation, suicide attempt	Suicidal ideation, suicide attempt	Family or peers	Own ideation and attempts were positively associated with family suicide attempts and with peer ideation and attempts, but the peer effects disappeared when environmental factors were controlled for.
Bearman & Moody (2004)	13,465 US 7-12th graders (general/ community)	Use of data from the National Longitudinal Survey of Adolescent Heath	Suicidal ideation, suicide attempts	Suicide attempt	Family or friends	Friend or family suicide attempts in the last year increased own odds of suicidal ideation and friends' attempts increased own odds of suicide attempt.
Bjarnason & Thorlindsson (1994)	7,018 Icelandic 9-10th graders (schools)	Anonymous, cross-sectional self-report questionnaires	Suicide attempt	Suicidal ideation, suicide attempt,	Friends or "others close to them"	Suicide attempts and deaths in friends positively correlated with own attempts, as did ideation to a lesser extent in females.

				suicide death		
Borowsky, Ireland & Resnick (2001)	13,110 US adolescents in grades 7-12 (general/ community)	Use of data from the National Longitudinal Survey of Adolescent Heath	Suicide attempt	Suicide attempt, suicide death	Family or friends	Friend or family suicide attempts or deaths generally predicted own suicide attempts (with variations across different genders and ethnic groups).
Borowsky, Resnick, Ireland & Blum (1999)	11,666 American Indians and Alaskans in grades 7-12 (schools and reservations)	Use of data from the National American Indian Adolescent Health survey (cross-sectional)	Suicide attempt	Suicide attempt, suicide death	Family or friends	Friends' suicide attempts or deaths were the most powerful risk factor associated with own suicide attempts. Family attempts and deaths were also positively associated with own attempts.
Brent, Kolko, Allan & Brown (1990)	42 suicidal and 14 non-suicidal 13-19 year olds with affective disorder in the US (inpatient unit)	Cross-sectional self-report measures	Suicidal ideation, intent, threat, gesture or attempt	Suicidal ideation, attempts, death	Family, friends or "others"	"Suicidal" patients were more likely to have a family history of, or to have been exposed to, family suicidality than "non-suicidal" patients. Actual exposure to the family suicidality was particularly important.
Chan, Law, Liu, Wong, Law &	511 Chinese 15-19 year olds (general/	Use of youth sub-group interview	Suicidal ideation	Suicide attempt	Family or friends	Suicide attempts in friends or family was a risk factor for own suicidal

Yip (2009)	community)	data from a household survey on suicidality (cross-sectional)				ideation (as was celebrity suicide and media reporting of suicide).
Corder, Page & Corder (1974)	9 "adolescent" suicide attempters and their families, families of 2 who died by suicide and 10 non-suicidal matched controls and their families in the US (county mental health centre)	Questionnaires completed by adolescents (where possible) and their parents, and data taken from medical records (cross-sectional)	Suicide attempt, suicide death	"Suicide" (not specified)	Family or friends	Significantly more suicidal adolescents had a family/ friend history of suicide than did non-suicidal controls.
De Leo & Heller (2004)	3,757 Australian year 10 and 11 students (schools)	Use of data from the CASE study (cross-sectional)	Self-harm	Self-harm	Family or friends	Own self-harm was positively associated with self-harm in friends or family (at least in females – insufficient numbers of males for analysis).
Deliberto & Nock (2008)	64 self-harming 12-19 year old and 30	Self-report interviews and	Self-harm	Self-harm	Family or friends	Those who self-harmed were more likely to have family history of

	non self-harming controls in the US (general/ community and outpatient mental health clinics)	questionnaires (cross-sectional)				suicidal ideation (significantly) and self-harm (non-significantly) than those who did not self-harm. (Plus, 38.3% reported that they got the idea from peers and 13.3% from the media).
Feigelman & Gorman (2008)	20,745 US youths grades 7-12 at wave I, 14,738 at wave II (1 year later) and 15,197 at wave III (6 years later) (general/ community)	Use of data from the National Longitudinal Survey of Adolescent Heath	Suicidal ideation, attempt	Suicide death, attempt	Family or friends	A friend's suicide death was related to an immediate (within the first year) increase in suicidal thoughts and attempts, but this may only be short term. Family suicide attempts have some, albeit less impact.
Fleming, Merry, Robinson, Denny & Watson (2007)	739 9-13 year olds in New Zealand (schools)	Use of data from the New Zealand Adolescent Health survey (cross-sectional)	Suicide attempt (in last 12 months)	Suicide attempt	Family or friends	Having friends or family who have attempted suicide was associated with an increase in own suicide attempts.
Gex, Narring, Ferron & Michaud (1998)	9,268 15-19 year old school and college students in	Use of data from the Swiss Multicenter	Suicide attempt (although	Suicide attempt	Friends or relatives	Suicide attempts in friends or relatives were positively associated with own suicide attempts, in the past

	Switzerland (schools and colleges)	Adolescent Survey on Health (cross-sectional)	other factors were questioned)			year.
Grossman, Milligan & Deyo (1991)	7,241 6th-12th graders in Alaska (schools)	Use of data from the Navajo Adolescent Health Survey (cross-sectional)	Suicide attempt	Suicide attempt, death	Family or friends	Own suicide attempts were related to having family or friends who attempted or died by suicide. Friends attempting suicide was more strongly associated with own attempt than family's attempts or deaths.
Hargus, Hawton & Rodham (2009)	5,717 15-16 year olds in England (schools)	Use of anonymous, self-report, cross-sectional data, from the survey used in Hawton et al. (2002)	Thoughts of self-harm, self-harm with and without intent to die	Self-harm	Family or friends	Self-harm in friends or family differentiated between various groups (e.g., those with and without suicidal thoughts; those with self-harm with intent to die and those with thoughts). In males, self-harm of peers differentiated those with self-harm without intent to die and those with thoughts. There were also strong associations between self-harm groups and self-harm in others.
Harkavy	380 9th-12th graders	Anonymous self-	Suicidal	"Suicidal	Family or	Those with ideation or attempts

Friedman, Asnis, Boeck & DiFiore (1987)	in the US (schools)	report, cross-sectional questionnaires	ideation, attempt	behaviour" (not specified)	peers	reported more suicidal behaviour in their family than those without but were no different to each other. Those with own attempts reported more suicidal behaviour in friends than did those with ideation, who reported more than those with neither.
Hawton, Rodham, Evans & Weatherall (2002)	6,020 mostly 15-16 year old high-school students in England (schools)	Anonymous, self-report, cross-sectional questionnaires	Self-harm, suicidal ideation	Self-harm	Family or peers	Own self-harm in the previous year was related to that of peers and family members.
Jegannathan & Kullgren (2011)	320 15-18 year olds in Cambodia (schools)	Self-report, cross-sectional questionnaires	"Suicidal expression"	Suicide attempt, death	Family, partners, friends	Own suicidal expression was associated with suicide attempt or death in immediate family, romantic partners or friends. Controlled for gender, only girls were more likely to have serious suicidal expression when exposed to suicidal behaviour in partners and friends.
Laederach,	148 15-19 year olds	Interviews,	Suicide	"Suicidal	Family or	An association was found between

Fischer, Bowen & Ladame (1999)	admitted to an emergency department following suicide attempt in Switzerland (general hospital)	structured questionnaires (cross-sectional)	attempt	behaviour" (not specified)	friends	own suicide attempts and suicidal behaviour in friends or family, and this was considered a main risk factor.
Larsson & Ivarsson (1998)	191 11-18 year old emergency inpatient admission in Sweden (hospital)	Clinical assessment, diagnosis and self-report questionnaires (cross-sectional)	Suicide attempt	Suicide attempt, death	Family or friends	Significantly more of those with repeated suicide attempts had family or friends who had attempted or died by suicide, than did non-attempters.
Larsson & Sund (2008)	2,464 12-15 year olds in phase 1 and 2,360 in phase 2 (1 year later), in Norway (schools)	Longitudinal self-report measures (1 year)	Self-harm, suicide attempt	Suicide attempt, death	Friends, family or "others"	Only having a friend who attempted suicide was predictive of self-harm with or without suicidal intent, a year later.
Lewinsohn, Rohde & Seeley (1994)	1,508 14-18 year olds in the US (schools)	Longitudinal (1 year) self-report questionnaires and diagnostic	Suicide attempt	Suicide attempt	Family or friends	The strongest predictor of suicide attempt was a recent attempt by friends (no significant effect found for family attempt), even after

		interview				controlling for depression.
McMahon, Corcoran, Keeley, Perry & Arensman (2013)	3,881 Irish high-school pupils aged 15-17 years (schools)	Anonymous cross-sectional, self-report questionnaires (part of the CASE study)	Self-harm	Self-harm, suicide attempt	Friends or Family	Strong associations found between life-time history of self-harm and self-harm in friends or family, and weaker associations found with suicide in friends or family. Three quarters of those who self-harmed reported -harm in others, and those who reported exposure were 3 times more likely to self-harm than those with no exposure.
McMahon, Reulbach, Corcoran, Keeley, Perry & Arensman (2010)	3,881 15-17 year old Irish high-school students (schools)	Use of data from the CASE study (cross-sectional)	Self-harm	Self-harm	Family or friends	Own self-harm was positively associated with friends' self-harm for both genders, and for girls only, own self-harm was associated with self-harm in the family.
Nanayakkara, Misch, Chang & Henry (2013)	4,719 7^{th}-12^{th} grade US adolescents, mean age 16.7 years (general/ community)	Use of data from the National Longitudinal Survey of Adolescent Heath	Suicide attempt	Suicide attempt, death	Friends or family	Exposure to suicide attempt or death in friends or family in the last year was the 2nd biggest risk ratio for suicide attempts.

O'Connor, Rasmussen & Hawton (2009)	737 15-16 year old high-school students (500 at wave II) in Scotland (schools)	Self-report longitudinal (6 months) data, part of the CASE study	Self-harm	Self-harm, attitudes towards self-harm	Family or friends	Those who first self-harmed between waves reported that their friends held more positive views of self-harm, than did non-self-harmers. Repeat self-harmers were more likely to have friends or family who self-harmed, and who were more positive about self-harm, compared to non-self-harmers.
O'Connor, Rasmussen & Hawton (2014)	3,596 15-16 year old high-school students in Northern Ireland (schools)	Anonymous, cross-sectional, self-report surveys (adapted from CASE)	Self-harm	Self-harm	Family or friends	Having family or friends who had self-harmed was associated with own self-harm in both boys and girls. 13.3% and 23.2% reported that the self-harm or suicide attempt of family or friends (respectively) influenced their own self-harm.
O'Connor, Rasmussen, Miles & Hawton (2009)	2008 15-16 year old high-school students in Scotland (schools)	Anonymous, cross-sectional self-report questionnaires (adapted from CASE)	Self-harm	Self-harm, attitudes towards self-harm	Family or friends	Own self-harm was positively associated with family or friends' self-harm in girls, and family self-harm in boys. Group norms (more positive views) were also associated

						with own self-harm in boys.
Portzky, Audenaert & van Heeringen (2009)	32 informants of 19 (15-19 year old) suicide deaths and 35 adolescent psychiatric controls (including people with suicidal ideation and attempts) in Belgium (psychiatric admissions)	Psychological autopsy, semi-structured interviews (cross-sectional)	Suicide death (plus ideation and attempts in controls)	"Suicidal behaviour" (not specified)	Family or friends	Those who died by suicide had more suicidal behaviour in the family than controls (non-significant), and more exposure to suicide in friends and the media (significant).
Portzky, de Wilde & van Heeringen (2008)	4,431 Belgian and 4,458 Dutch 15-16 year old high-school students (schools)	Anonymous, cross-sectional, self-report questionnaires	Self-harm, suicidal thoughts	Suicide	Family or friends	Suicide in the family or close friends was positively associated with own self-harm. Belgian students were at a higher risk for both self-harm and suicidal behaviour in family or friends and their own self-harm and suicidal thoughts.
Razin, O'Dowd, Nathan, Rodriguez,	33 12-17 year old Hispanic girls admitted to a	Semi-structured interviews with adolescents and	SSHB	"Suicidal behaviour/ models"	Mothers and "models"	More mothers of the suicidal group had made attempts than mothers of controls (non-significant) and

Goldfield, Martin, Goulet, Scheftel, Mezan & Mosca (1991)	paediatrics unit for SSHB and 15 non-suicidal matched controls, in the US (general hospital)	their mothers (cross sectional)		(not specified)	(not specified)	reported more suicidal models (non-significant). Both groups reported similar numbers of suicidal models (and only one named her mother).
Rew, Thomas, Horner, Resnick & Beuhring (2001)	8,806 7th, 9th and 11th graders in the US (schools)	Secondary analysis of data from the Minnesota Adolescent Health Survey (cross-sectional)	Suicide attempt	Suicide attempt, death	Family or friends	There were significant positive relationships between own suicide attempt and that of family or friends. The highest rates of both suicide attempt and deaths in the family, and own suicide attempt, were in Hispanic girls.
Rotheram-Borus, Hunter & Rosario (1994)	138 gay and bisexual 14-19 year old males in the US (community centre for gay youths)	Self-report semi-structured interviews (cross-sectional)	Suicidal ideation, attempt	Suicide attempt	Family or friends	Suicide attempters were more likely to have friends or relatives who have attempted suicide than were non-attempters.
Rotheram-Borus, Walker & Ferns (1996)	1,616 11-17 year old consecutive attendees at a crisis service in the US	Cross-sectional, self-report measures completed at	Suicidal thoughts, plans, attempt	Suicide attempt, death	Family or friends	Suicide attempters were around twice as likely as non-attempters to report having a family member who attempted suicide, but there was no

	(crisis service)	interview				difference for peer suicide attempts.
Rubenstein, Halton, Kasten, Rubin & Stechler (1998)	272 10-11th graders in the US (schools)	Anonymous, self-report questionnaires (cross-sectional)	"Suicidality" (based on harming or attempt to kill oneself)	Suicide attempt, death	Family or friends	Suicidal behaviour in the family or friends was significantly associated with own suicidality.
Thompson, Kuruwita & Foster (2009)	10,424 7th-12th graders in the US (schools/ general)	Use of data from the National Longitudinal Survey of Adolescent Heath (3 time points over 7 years)	Suicide attempt	Suicide attempt, death	Family or friends	Risk indicators for own (first) suicide attempt included having family or friends with a history of suicide attempt or death by suicide.
Thompson & Light (2011)	10,828 7th-12th graders in the US (schools/ general)	Use of data from the National Longitudinal Survey of Adolescent Heath (3 time points over 7 years)	Suicide attempt	Suicide attempt, death	Family or friends	After 1 year, own suicide attempts were positively related to friends' suicide attempts or deaths and family suicide attempts. After 7 years, own suicide attempt was positively related to friend or family suicide attempts.
Tomori (1999)	4,700 14-19 year old	Anonymous self-	Suicide	Suicide	Family or	Significantly more of those who had

	Slovenian high-school students (schools)	report questionnaires (cross-sectional)	attempt	attempt, death	close friends	attempted suicide themselves had been exposed to suicide attempts or deaths in their families or close friends.
Tomori & Zalar (2000)	3,687 14-19 year old Slovenian high-school students (schools)	Anonymous self-report questionnaires (cross-sectional)	Suicidal ideation, attempt	Suicide attempt, death	Family or close friends	No significant differences were found between those who had and had not attempted suicide, with respect to suicide attempts or deaths among family or close friends.
Wang, Lai, Hsu & Hsu (2011)	577 15-19 year old Taiwanese high-school students (schools)	Anonymous, cross-sectional, self-report questionnaires	Suicidal ideation	Suicidal ideation	Parents or peers	More suicidal ideation was reported in those whose mothers (but not fathers) or peers had suicidal ideation, than those whose mothers or peers did not. Peer suicidal ideation was a significant risk factor for own suicidal ideation.
Wichstrom & Hegna (2003)	2,924 7^{th}-12^{th} grade Norwegian high-school students (schools)	Longitudinal self-report questionnaires (3 time points over 7 years)	Suicide attempt	Suicide attempt, death	Family or friends	Suicide attempt or death among family or friends was one of the (many) risk factors for own suicide attempt.

Goldfield, Martin, Goulet, Scheftel, Mezan & Mosca, 1991) and psychiatric services (e.g., Portzky, Audenaert & Van Heeringen, 2009).

2.5.4.3 Methods and measurement

Whilst the majority of the studies in this section employed a purely child/adolescent-only self-report method, some of the authors included the use of additional informants (e.g., friends or family members reporting on their own behaviour; Ali, Dwyer & Rizzo, 2011) and official records were occasionally used (e.g., hospital records; Brent, Kolko, Allan & Brown, 1990). Data was collected in a variety of ways; in some instances through anonymous surveys (e.g., Bjarnason & Thorlindson, 1994), and in others, through face-to-face interviewing (e.g., Chan, Law, Liu, Wong, Law & Yip, 2009).

2.5.4.4 Longitudinal studies

The current section contained a number of longitudinal studies (N = 11), as opposed to almost entirely consisting of cross-sectional research, as have other sections. Studies such as those of Feigelman and Gorman (2008) and Larsson and Sund (2008) help in identifying the direction of effects, for example by providing evidence that experiencing the death of a friend by suicide is positively associated with suicidal thoughts or attempts a year later, or that having a friend attempt suicide is related to self-harm a year later, respectively.

2.5.4.5 Other contributory factors

Unlike other sections, papers in this section did not often report on any moderating or mediating effects of psychopathology on the relationship between child/adolescent SSHB and that of people they know. Where they did, no interaction was found between depression and exposure to a friend's or family member's suicide attempt in predicting own suicide attempts (Nanayakkara, Misch, Chang & Henry, 2013) or there was little change in the relationship between the suicide attempt of a friend and adolescents' future suicide attempts when depression was controlled for, despite the elimination of many other previously significantly associated variables as a result (Lewinsohn, Rohde & Seeley, 1994). In fact, aside from occasionally splitting analyses by gender (e.g., Bjarnason & Thorlindsson, 1994; O'Connor, Rasmussen & Hawton, 2014) or ethnicity (e.g., Borowsky, Ireland & Resnick, 2001), papers in this section did not often explore whether the associations between child/adolescent SSHB and that of other groups, interacted with any other variable.

2.5.4.6 Explicit reports of influence

As well as the overall tendency of papers in this section to report statistical associations between children's/adolescents' SSHB and that of other groups, two papers support this with overt reports of participants having been influenced by the behaviour of others. As well as finding that those who self-injure were statistically more likely to have a family history of suicidal ideation than those who did not self-injure, 38.3% of Deliberto and Nock's (2008) self-injuring participants explicitly reported that they first got the idea to do so from their peers (and 13.3% from the media). Additionally, as well as statistical associations between adolescent self-harm and that of their friends and family, O'Connor, Rasmussen and Hawton (2014) report that 13.3% of their Northern Irish adolescents explicitly stated that family members' self-harm or suicide attempts influenced their own self-harm, and 23.2% reported that the same was true of their friends' self-harm or suicide attempts.

2.5.4.7 No associations found

The two papers in this section which failed to find any statistically significant associations between adolescents' and others' behaviours were that of Razin, O'Dowd, Nathan, Rodriguez, Goldfield, Martin, Goulet, Scheftel, Mezan and Mosca (1991), and Tomori and Zalar (2000). Despite finding many other variables which differentiated between suicide attempters and non-attempters (e.g., self-esteem, drug abuse), Tomori and Zalar (2000) found that having been exposed to either the suicide attempt or death of a family member or close friend did not distinguish between the groups. Razin, O'Dowd, Nathan, Rodriguez, Goldfield, Martin, Goulet, Scheftel, Mezan and Mosca (1991) however, report that although the difference was not statistically significant, more mothers of the suicidal/self-harm group had made suicide attempts than had mothers of the non-suicidal control group. The sample used for this study was relatively small (n = 48), and had it been larger, results may have reached significance. There was however, no difference in the number of "suicide models" reported by either group, and only one participant specifically named her mother as a suicide model, so it is possible that there really was no difference in this population.

2.5.4.8 Social norms

The only paper which touched upon group norms in the entire review was identified in this section. O'Connor, Rasmussen, Miles and Hawton (2009) found that group norms for self-harm (defined by these authors as "the attitudes of peers and friends towards self-harm", p69, or "the beliefs, attitudes and behaviour of… respondents' friends and peers", p71) were associated with self-harm, but only in boys.

2.5.5 Qualitative findings

2.5.5.1 Summary

The three qualitative papers selected for inclusion in the review all aimed to explore general risk factors or characteristics of SSHB, but each found some reported influence of those behaviours in others, on the child's/adolescent's own. The range of locations (South Africa – Beekrum, Valjee & Collings, 2011; Nicaragua – Herrera, Dahlblom, Dahlgren & Kullgren, 2006; and Israel – Orbach, Gross & Glaubman, 1981) provides for international comparison and on the face of it at least, a broad representation of cross-continental behaviour. In addition, participants ranged from 6 to 19 years old, providing a broad developmental range from which to draw conclusions. Summaries of these papers can be found in Table 2.4.

In one paper (Beekrum, Valjee & Collings, 2011), a family history of attempted suicide or suicide death was indicated as a potential influence over the non-fatal suicidal behaviour of respondents, with many respondents explicitly describing instances in which they had witnessed the suicidal behaviour of a family member or friend result in some desired outcome. This observation may well have encouraged their own non-fatal suicidal behaviour, with the expectation that it might also aid them in achieving some goal, in the same way. Indeed, some participants reported instances where their own non-fatal suicidal behaviour had improved their situation.

Another qualitative paper which focused on a different group, reported similar findings; that suicide among friends sometimes acted as a trigger for respondents' suicide attempts (Herrera, Dahblom, Dahlgren & Kullgren, 2006). These authors present their findings in a slightly different way though, proposing a model of pathways to suicidal behaviour, consisting of structuring conditions (e.g., material deprivation or lack of social support), triggering events (e.g., physical abuse or *suicide of a friend*), resultant emotions (e.g., shame or guilt) and action taken (e.g., suicide attempt). Interestingly, aside from the overt reports of suicide by friends or relatives as a trigger for suicide attempts, many of the other triggers identified in this paper featured themes of loss or abandonment. One could arguably view the suicidal actions of a friend or relative as their afflicting both loss and abandonment upon an individual, so although these accounts do not explicitly refer to the suicide of friend, the resulting outcomes may be related. This is not, however, explored in this paper, and death of a relative generally (i.e. not by suicide), was alluded to as important, by several participants.

Table 2.4: Qualitative papers

Authors	Sample (setting)	Design/ method	Adolescent behaviour measured	Behaviour of others	Reference group	Relevant findings
Beekrum, Valjee & Collings (2011)	10 14-17 year old South African females of Indian descent (general inpatients)	Focused interviews	"Non-fatal suicidal behaviour"	Suicide attempt, suicide death	Family	Family suicide death or attempted suicide was an influencing factor on own suicidal behaviour. Explicit reports of observed positive outcomes from family or friends' suicidal behaviour.
Herrera, Dahlblom, Dahlgren & Kullgren (2006)	8 Nicaraguan 12-19 year old girls admitted to hospital following suicide attempts (hospital)	In-depth interviews	Suicide attempt	Suicide	Friends or relatives	Some participants reported that suicide by friends or relatives was a triggering event for their suicide attempts.
Orbach, Gross & Glaubman (1981)	11 6-12 year old children who had attempted or threatened suicide, in Israel (schools)	Analysis of intensive interviews, therapeutic meetings, observation, interviews with family and teachers and school records	Suicide threat, attempt	Suicidal ideation, attempt	Parents (mostly mothers)	The majority of the children had a suicidal parent – usually the mother – who had in some cases openly expressed a wish to die, offered methods of suicide or expressed a wish that the child had never been born, for example.

The final qualitative paper (Orbach, Gross & Glaubman, 1981) reported that one of the common characteristics of most of the children studied – all of whom had threatened or attempted suicide – was a suicidal parent in their family (usually their mother). In some cases, parents openly spoke about their own or the child's potential suicide in front of the child, even offering a choice of weapons with which the child might take their life, so it might be argued that to those children, suicide became a particularly "real" concept and a possible addition to their behavioural repertoire, whereas for other children, it might never occur to them as an option. Indeed, the authors report attraction of some participants to death, including one child who "conducted 'experiments with death'" and believed that "it is good to be dead", because once he died, he would "lay in (his) grave and (he) will be warm" (p185). Many children however, showed a repulsion towards, or a fear of death, yet still made suicide threats or attempts. The authors explain this in terms of four competing dimensions which describe suicidal behaviour; attractiveness of life, repulsiveness of life, attractiveness of death and repulsiveness of death.

2.6 Discussion

2.6.1 Summary of findings in relation to aims

Aim: To investigate whether relationships have been found between children's/adolescents' SSHB and that of people they know, and to broadly examine the features of those relationships.

A sizeable body of high-quality literature was identified, investigating the relationship between SSHB in children/adolescents and similar behaviours in people they know, exploring a huge range of samples and utilising a variety of research methods. Overall, the vast majority of the literature suggests that there are positive associations between children's/adolescents' SSHBs and those of people they know. Variations in findings across the literature make it difficult to determine exactly with whose behaviour that of the child/adolescent is associated, and for which specific behaviours associations exist, but associations are nevertheless extensively apparent. There is further uncertainty regarding the direction of influence between children/adolescents and the people they know, and potential ambiguity or bias brought about by the data collection methods employed.

The literature is contradictory in terms of where associations lie, with some studies reporting the strongest relationships with family members' behaviour (e.g., Ali, Dwyer & Rizzo, 2011;

Rotheram-Borus, Walker & Ferns, 1996) and others reporting that friends' behaviour is more strongly related to that of the child/adolescent (e.g., Larsson & Sund, 2008; Lewinsohn, Rohde & Seeley, 1994). Different explanations for these findings have been proposed, each with their own merits. For example, family associations may be stronger as a result of the shared time spent with one's family, experiencing shared outcomes of events (e.g., Ali et al., 2011); or friend associations may be stronger because young people may look to their friends for behavioural guidance (e.g., Brechwald & Prinstein, 2011). One paper which was excluded from the current review on account of its failure to define the nature of the "others" with whom behavioural associations were explored, but which found associations between adolescents' suicidal ideation and attempts and the suicide death of people they know, suggested that the behaviour of *schoolmates* may be particularly important, because the death of a same-aged peer may leave a particularly strong impression on an young person (Swanson & Colman, 2013)[7]. It is possible that these contradictory findings are indicative of *actual* differences in outcomes for individuals of different ages, genders, or sampled from diverse populations; but it is also possible that they are simply illustrative of the inconsistent measures and methods of questioning employed across the literature.

Similarly, associations were found between a range of behaviours, and the particular behaviours most strongly associated are unclear, due to the diverse combinations studied throughout the literature. Although many studies report that children's/adolescents' SSHB may be associated with the self-harm or suicide attempt of people they know, several studies have reported an absence of associations with the actual suicide death of both family (e.g., Kebede & Ketsela, 1993) and friends (e.g., Brent, Moritz, Bridge, Perper & Canobbio, 1996), perhaps as a result of the inhibitory effects that witnessing the aftermath of a death by suicide may have upon individuals who experience it. Conflicting evidence disputes this notion though, with many researchers finding evidence that knowing someone who died by suicide may be associated with the suicidal behaviour of a child/adolescent (e.g., Borowsky, Resnick, Ireland & Blum, 1999; Cerel & Roberts, 2005), perhaps due to the feasibility of

[7] Given the fluctuation in quality and nature of different relationships across the lifespan (e.g., Tesch, 1983), it is possible that age may play a part in who exerts the most influences over one's behaviour at different stages. Studies in the current review report on a relationship between age and engaging in SSHB (e.g., Brent, Moritz, Bridge, Perper & Canobbio, 1996; Sidartha & Jena, 2006), and between age and having friends who engage in SSHB (e.g., Cerel, Roberts & Nilsen, 2005; Ho, Leung, Hung, Lee & Tang, 2000), but no study explores an interaction.

suicide as a coping mechanism, afforded by exposure to its use by someone else. It is difficult to comprehensively determine where associations lie in the face of such contradictory evidence, but it is nevertheless clear that some associations do exist between the SSHBs of children/adolescents and that of people they know.

Aim: To identify whether perceptions of others' SSHBs are considered with regard to associations with children/adolescents' own SSHB, or whether accurate knowledge is routinely assumed.

It was found that very little distinction was made in the literature between children's/adolescents' perceptions of the behaviours of others, and their actual knowledge of those behaviours; the two were usually assumed to be synonymous. Although other methods were used, self-report was the most common method of obtaining such information, and the implications of relying on adolescents' self-reports will be discussed. In terms of practical applications of the research to practice, as discussed by Brechwald and Prinstein (2011), if inaccurate perceptions are related to certain behaviours, employing interventions which correct those misperceptions may be effective in reducing those related behaviours, as has been the case in other behavioural domains (see Chapter 3). The potential application of the social norms approach to SSHBs is the ultimate focus of the current thesis, and to the author's knowledge, this has never been researched, so it is interesting that other authors should have considered this in their discussion sections.

Aim: To explore whether any specific literature exists around the perceived social norms of SSHB.

No explicit reference was found to descriptive norms, and barely any consideration was given to injunctive norms, with only one paper touching upon injunctive normative influence (O'Connor, Rasmussen, Miles & Hawton, 2009). However, it should be noted that the search strategy for this review did not contain any terms relating to descriptive or injunctive norms, nor attitudes or approval specifically, so whilst it is highly unlikely given the range of terms used, it is possible that some relevant literature was missed. O'Connor et al. suggest that as well as others' actual behaviour, others' positive attitudes towards those behaviours may be associated with individuals' own behaviours. If overestimations are present for either of these norms, particularly given the "invisible" nature of such concepts as suicidal ideation (which is obviously more difficult to observe than are suicide attempts or deaths), individuals' behaviour may be increased through similar means as has been observed for other damaging behaviours (see Chapter 3). Interventions which align perceptions more closely with reality may prove similarly effective in reducing engagement in SSHBs, as

others previously studied. Indeed, Wang, Lai, Hsu and Hsu (2011) note the importance of designing school-based programmes which focus on increasing appropriate peer norms and improving attitudes towards life and help-seeking.

While the first aim of the current review was thus largely achieved, there was limited evidence to enable the subsequent aims to be addressed comprehensively. Limited information relevant to these aims provides indications that a discrepancy between children's/adolescents' perceptions of the behaviour of others and others' actual behaviour may be worth considering, and that perceived social norms may be interesting in terms of their relationship with children's/adolescents' behaviour. But the lack of research in both of these areas signals the need for these issues to be addressed more systematically in future research. This is discussed in more detail below, and the remainder of the current thesis endeavoured to address, in part, these gaps in the literature.

2.6.2 Limitations of review process

Whilst every effort has been made to conduct a rigorous narrative review of the literature, the vast array of different methods employed, measures used and analyses conducted/reported, meant that meta-analysis was not possible in this instance. As such, the results of this review are necessarily descriptive (although this is perhaps more a limitation of the literature than of the review process itself). The descriptive findings presented here do however provide a convincing argument for the existence of positive associations between children's/adolescents' SSHB and that which they report in people they know, despite their inability to provide statistical synthesis. The large number of studies reviewed, along with the vast range of countries and settings from which data was collected and the ample sample sizes used in many of these studies, assist in providing a reasonably reliable argument, despite the lack of statistical synthesis, that children's/adolescents' SSHBs may be associated with those of people they know.

The current review was susceptible to many of the limitations common to other reviews, particularly on account of the strict inclusion criteria employed. For example, the inclusion of only peer-reviewed journal articles necessarily excludes the grey literature, which it has been claimed is likely to result in exaggerated effects in meta-analyses (e.g., McAuley, Pham, Tugwell & Moher, 2000). It is possible therefore that the findings of the current review overstate the associations between child and adolescents' SSHBs and those of people they know, as a result of publication bias of positive findings. The increased likelihood of

those studies which report positive findings being published is a well-debated issue in the social sciences, and is an issue which renders reviews of published-only research open to bias. However, the presence of several papers in the current review reporting negative findings may somewhat minimise concerns in this regard. The necessary exclusion of non-English language papers may further bias results, but the inclusion of myriad studies conducted all around the world suggests that there is no reason to suspect that papers published in other languages may have differed substantially in their results. A final potential limitation intrinsic to many reviews (including this one) is the use of the same data set by authors of multiple papers. Specifically, many of the papers reviewed here use data from the National Longitudinal Survey of Adolescent Health (Add Health), which despite consisting of high-quality, seemingly generalisable data, renders the overall data set under review somewhat smaller than it at first appears, and the multiple studies which use that data, susceptible to similar limitations. Independent findings however, repeatedly support those of the Add Health survey, so this concern may be minimal.

2.6.3 Methods and measurement

2.6.3.1 Causal direction

Despite the vast array of evidence for associations between children's/adolescents' SSHB and that of people they know, there are contradictory reports with regard to exactly which behaviours are associated, between whom, and in which direction. Several methodological limitations contribute to this uncertainty. The prevailing use of cross-sectional design and quantitative data contributes to the lack of clarity regarding whether children/adolescents are influenced by the behaviour of people they know, whether they choose to associate with people who engage in similar behaviours to themselves, or whether they are simply more likely to be aware of/overestimate the prevalence of those behaviours in others because they engage in them themselves. The majority of the (relatively sparse) literature base employing longitudinal or qualitative methods suggests that exposure to SSHB in others *does* increase children's/adolescents' engagement in those behaviours, but there are also a minority of longitudinal studies (n = 2) which failed to find any influence, and longitudinal studies are of course prone to limitations of their own (not least of which is their innate inability to follow-up one of the groups most of interest to research in this area – namely; those who have died by suicide). Further, although the qualitative research reviewed here points towards adolescents being influenced by the behaviour of others, the lack of qualitative research with negative findings is not a reliable measure of a lack of effect, because qualitative researchers tend not to report that which they did not find (and absence of evidence does not equate to

evidence of absence). The absence of information regarding the specific questions posed also renders it impossible to determine whether participants reported influence from others as a best-fit response to a question which was not particularly relevant to them, or provided a spontaneous response to a more general question, indicating that influence was an important factor to that individual.

One set of studies conducted by Prinstein, Heilbron, Guerry, Franklin, Rancourt, Simon and Spirito (2010) may help in understanding causal direction of these influences. In their first study, they found that best friends' own reported self-injury predicted adolescents' self-injury a year later. Asking nominated friends *themselves* to report on *their own* behaviour of course eliminates any potential perceptual bias introduced through adolescent reports of their friends' behaviour (discussed below). However, in their second study, they found a reciprocal relationship between perceptions of friends' self-injury and adolescents' own self-injury, in that own self-injury at baseline was related to perception of friends' self-injury nine months later, and perceptions of friends' self-injury was also related to own self-injury nine months later. This suggests quite a complicated relationship between perceptions of others' SSHBs and own engagement in those behaviours, transcending that which is accounted for by actual exposure alone. It further raises the question of whether any associations between adolescents' behaviour and that of their friends are due to social learning or modelling, or selection of similar others. You, Lin, Fu and Leung (2013) explored this further using similar techniques in which nominated friends report on their own behaviours. They conclude that an individual's best friend's and friendship group's self-harm predicts their own engagement in self-harm, but individuals who self-harm are also more likely to join friendship groups where the other members also engage in self-harm. The evidence from family studies would of course support the social modelling idea (as one does not select one's family due to their similarity), but evidence from friend/peer studies makes this a little less clear.

An abundance of research findings gathered in school settings should be considered with further caution. Due to the process of recruiting from school populations (although this may differ internationally), it is possible that many of the young people who might have been of particular interest in terms of the research aims, might be excluded. In some institutions in Scotland for example, researchers are required to obtain parental consent for anyone under 12, and parental assent for those over, before inviting the young people themselves to participate. This means that only those children/adolescents whose parents wish them to participate will be allowed to do so, regardless of whether or not they would have chosen to

do so themselves. If a child/adolescent or their family has experience of SSHBs or there are other particular issues in the family which might make SSHBs more likely, parents may decide that the research would be too distressing for their child, and decline to participate. Similarly, those pupils who the literature would suggest are most at risk of SSHBs (e.g., those with psychological problems, those from dysfunctional homes, or those with problems at school or with friends; see review by Webb, 2002) may be particularly likely to miss school as a result (e.g., through ill-health, truancy), and their potentially interesting data is therefore lost through absenteeism. Those participants who dropped out prior to wave 2 of Hasking, Andrews and Martin's (2013) study scored higher on the Self-Harm Behaviour Questionnaire than those who completed follow-up, indicating that it is at times those participants who are most at risk, who fail to participate. These issues may even be demonstrated at the organisational level – with some authors reporting that those schools which declined to participate had experienced more recent exposure to deaths by suicide than had those schools which participated (Ho, Leung, Hung, Lee & Tang, 2000). The same authors also noted a difference between those pupils whose parents did and did not participate, in a number of features, several of which are widely evidenced to be related to SSHBs (e.g., hopelessness, aggression, drug use). Furthermore, it is unclear whether or not this was an issue with the studies reviewed here, but the potential exclusion of children/adolescents who attend additional needs schools or who are in receipt of additional help for reading/writing, may further affect the findings. Self-report measures which are so widely used necessarily require a particular level of literacy in order to complete them, and it is therefore likely that individuals with learning difficulties or developmental problems for example, may have been excluded. This is merely conjecture, and researchers may well have made provisions for these individuals which they simply did not report, but it is a point worth considering. All of these potential issues may mean that SSHBs are misrepresented in the research, and the findings of this review may have differed, had data pertaining to these excluded children/adolescents been included.

2.6.3.2 Self-report

The reliance generally on self-report methodology further complicates the picture, as self-report by definition enables the reporter to provide only that information to which they are privy, or indeed that which they choose to provide, and the potential bias that this affords may be particularly pertinent with a topic as sensitive in nature as suicide and self-harm. Self-reported data of this nature might be vulnerable to the influence of recall bias, inaccurate information, social desirability, or shame/embarrassment, and as such, an overall dataset which is heavily composed of self-report data may be susceptible to over- or

underestimation of both the children's/adolescents' behaviour and that which they report occurs in those around them. For example, O'Connor, Rasmussen and Hawton (2014) suggest that the lower than expected self-harm rate they observed in their Northern Irish sample may reflect a society-wide reluctance to disclose personal information as a result of "The Troubles" and associated sectarianism, as opposed to a genuinely low rate of self-harm. The practice employed by many researchers, of informing participants that those deemed at high risk of suicidality will be referred to support services or reported to their parents (e.g., Marcenko, Fishman & Friedman, 1999; Watkins & Gutierrez, 2003) may further discourage participants from admitting to suicidal thoughts or behaviour.

The use of self-report methods of course also enables individuals to decide whether or not they answer particular items, and items of such a personal or sensitive nature as those regarding SSHBs, may be considered more distressing by those individuals who are at highest risk (and arguably of most interest), and are thus omitted from their responses. There is little that a researcher can do about this, but as a common method of dealing with missing data – particularly in studies with large samples – is list-wise deletion, these individuals for whom the behaviours in question are most relevant, may go under-represented. McMahon, Corcoran, Keeley, Perry and Arensman (2013), for example, disregarded 181 of their surveys due to their items about exposure to, or engagement in, SSHB not being answered. Whilst this makes perfect sense if it is those items specifically in which one is most interested, it also potentially means that interesting data has been missed, and findings are not necessarily entirely accurate/representative. In addition, the common provision of a "don't know" response option in self-report surveys may further result in missing data and under-reporting of the behaviours of interest, as those who are unsure whether their responses are accurate or who are unwilling to respond honestly, may opt for such an option rather than choose the response which most closely represents their situation, as researchers would hope they would do.

Even where participants do attempt to respond to items, there is the accuracy of self-report measures to consider. Marcenko, Fishman and Friedman (1999) state that "research on suicidal ideation may actually be the study of one's willingness to admit to suicidal thoughts" (p123). Misreporting could be deliberate (e.g., denial of engaging in self-harm through embarrassment or fear of being "exposed"; dishonestly claiming to engage in self-harm in an attempt to portray a certain image) or unintentional (e.g., over-reporting of others' self-harm due to the emotional salience of the act; under-reporting due to poor recall of an experience which caused distress), but it may distort findings, regardless. Prinstein,

Boergers and Spirito (2001) raise the importance of considering perceptual bias in studies employing self-report measures, and note that using multiple sources (as many studies currently reviewed have done) may increase reliability of the data and allow for comparisons between what adolescents perceive their peers to be doing, and what their peers are *actually* doing. Social norms research into other health-related behaviours repeatedly demonstrates that individuals overestimate the negative or damaging behaviours of their peers (see Berkowitz, 2004), and the findings of Prinstein, Heilbron, Guerry, Franklin, Rancourt, Simon and Spirito's second study (2010; described above), indicate that perceptions of others' self-harming behaviours may indeed be related to one's own. It could be argued that individuals' perceptions of events – regardless of accuracy – are therefore more important than the actual events themselves, in terms of the resultant impact on that individual. Hasking, Andrews and Martin (2013) for example, claim that "the perception of the reason a peer engages in non-suicidal self-injury is more compelling than the actual reason" (p1553). As such, self-report might be the ideal method for obtaining such information regardless of accuracy, and the (in)accuracy itself, and its relation to the individual's own behaviour, is of most interest. This is discussed in more detail throughout the remainder of the thesis.

It is important to note however, that despite the abovementioned limitations of self-report research, the associations between children's/adolescents' SSHB and that of other groups which have been repeatedly found by these studies, have been found using other methods too, and some researchers have made constructive attempts to tackle potential bias. A particularly good example is observed in the National Longitudinal Survey of Adolescent Health (or "Add Health"), upon which many papers in this review base their analyses (e.g., Bearman & Moody, 2004; Feigelman & Gorman, 2008; Thompson, Kuruwita & Foster, 2009). In this large-scale survey which was carried out in the US, data were collected regarding participants' nominated closest friends, enabling the extraction of information about friends' suicidal behaviours, directly from those individuals' responses. Most of the papers which based their analyses on data from the Add Health survey report associations between adolescents' and their friends' behaviours, indicating that behavioural associations are not solely accounted for by self-report biases.

2.6.3.3 Informant bias

The use of other informants to increase reliability of reports may introduce additional biases, however; particularly in family studies. For example, mothers were more often used as informants on family background than were fathers, and it is possible that this division may have resulted in biased reports, perhaps through differential knowledge or recall of events on

the "other side" of the family. Many studies had much lower numbers of fathers participating than mothers (e.g., Bridge, Brent, Johnson & Connolly, 1997) and some relied solely on mothers' reports of both their own, and the fathers' behaviours (e.g., Pfeffer, 1984). The relative dearth of fathers' reports in the research may have resulted in biased results. Some studies however, which employed measures to include absent parents, found similar results to those without such measures (e.g., Tishler and McKenry, 1982), so this concern may be minimal. Similar biases may have been introduced in some of the friend/peer papers, where despite the inclusion of both close friends and more distant acquaintances of suicide probands, some studies failed to recruit those closest to the deceased (e.g., Brent, Perper, Moritz, Allman, Friend, Schweers, Roth, Balach & Harrington, 1992) or neglected to distinguish between the responses of close friends and acquaintances, in their reporting (e.g., Brent, Moritz, Bridge, Perper & Canobbio, 1996). Ho, Leung, Hung, Lee and Tang (2000) found that close friends of those who attempted or died by suicide were at a greater risk of engaging in suicidal behaviour than were acquaintances, so such distinctions may be significant.

2.6.3.4 Missing baseline data

Despite the aforementioned usefulness of longitudinal studies, a major flaw of many of those included in the current review is their failure to control for baseline suicidality (or at least to report that they did so). Although studies report for example, that following exposure to SSHB in others, individuals are at an increased risk of engaging in SSHB themselves, it is often unclear whether this increased risk is in comparison to their baseline risk, or just relative to those without exposure to such behaviours in others. This makes it difficult to ascertain whether future high levels of SSHB are actually related to exposure to others' behaviour, or whether those individuals who exhibit high levels of those behaviours in the future, also did so at baseline. Lewinsohn, Rohde and Seeley (1994) found that although a recent suicide attempt by a friend was a predictor of adolescents' suicide attempts, the biggest predictor was a past suicide attempt, so it seems that past SSHB should be taken into account. These authors did report though, that the predictive power of a friend's recent suicide attempt remained even after controlling for individuals' past attempts, and Nanayakkara, Misch, Chang and Henry (2013) found that after controlling for own previous attempts, exposure to suicide attempt or death in friends or family was the second biggest risk factor for own suicide attempts, so individuals' own past behaviour is clearly not alone in increasing the risk of future SSHB.

It is possible that some such studies did in fact control for baseline SSHB in individuals; they just neglected to report it. However, even if baseline scores were controlled for, it would be difficult to definitively determine whether any increase over time in SSHB subsequent to exposure to such behaviour in others was the result of adolescents' having been influenced by that exposure, or merely representative of a natural increase in that behaviour which might have occurred regardless of whether or not said exposure had taken place. The only way to systematically test this would be through a randomised-controlled trial, which of course would not be an appropriate design for study in this area, as it might be in other research areas.

2.6.3.5 Unfeasibility of RCTs

The lack of feasibility of randomised-controlled trials in this field of research makes it difficult to determine whether apparent effects are the result of the variables of interest, or whether other factors are responsible for/influence outcomes. Needless to say, it would be impossible for example, to randomly expose a proportion of participants to SSHB in people they know and then compare how their own behaviour develops in relation to an unexposed group, so we are reliant on more naturalistic self-report or observational data to determine exposure and outcomes, and results are therefore highly susceptible to all manner of extraneous factors. However, a small amount of experimental research *has* been conducted in this area and similar findings have been found as those of the studies reviewed here. Using a self-aggression paradigm, Berman and Walley (2003) found that participants tended to engage in similarly self-aggressive behaviours as their (fictitious) opponent, in a reaction time task for which the "loser" was required to self-administer electric shocks. Those participants whose opponent engaged in high self-aggression on losing trials, also tended to self-administer an increasing severity of shock, whereas those whose opponents engaged in low self-aggression, also tended to self-administer less severe shocks. Sloan, Berman, Ziegler-Hill and Bullock (2009) later replicated these findings, and investigated factors which might affect these behavioural associations; noting that a dissenting voice reduces the extent to which self-aggressive behaviour is imitated. In a similar type of experimental study by Cohen and Prinstein (2006), but one which employed a male adolescent sample and explored a wider range of aggressive and unhealthy behaviours, participants similarly tended to conform to the negative behaviours and attitudes of fictitious others, but the extent to which they did so was dependent on the popularity status of those others and moderated by their own social anxiety (the latter point being a finding which incidentally is mirrored in social norms research around alcohol consumption; Neighbors, Fossos, Woods, Fabiano, Sledge & Ross, 2007). Whilst these studies are interesting and provide us with an

approximation of information that we would be unlikely to be able to obtain in such a controlled manner directly, they are lab-based, highly contrived and thus lacking in mundane realism, which limits the extent to which the results can be generalised to real behaviour in the real world. As such, more naturalistic, ecologically valid research, controlling for as many other variables as is appropriate and feasible, may be the most rigorous method researchers currently have at their disposal for exploring these issues.

2.6.4 Terminology/definitions

An issue which makes synthesis of findings challenging, and which may account for variation in results and/or have an impact on the reliability of findings, is the terminology used – both with respect to the definition of terms used by researchers, and the understanding of terms by participants. Terms such as "self-harm", "self-injury", "suicide attempt" etc. could of course encompass any number of behaviours, depending on the definition one uses, and it is likely that the use of differing definitions across research teams, as well as the differential interpretation of those terms by participants, could have at least some impact on research findings. As discussed in Chapter 1, there is some disagreement across the field with regard to the similarity or relatedness of self-harm and suicide attempt, for example. Some papers in the current review refer to non-fatal suicide attempts and self-harm synonymously, paying little regard to suicidal intent (e.g., Cerel, Roberts & Nilsen, 2005) while others refer to and measure self-harm with and without suicidal intent separately (e.g., Hargus, Hawton & Rodham, 2009). Within the domain of self-harm itself, those behaviours which constitute such an act vary across the literature from relatively less severe behaviours such as pinching, preventing wounds from healing (e.g., Alfonso & Kaur, 2012) or self-biting (e.g., You, Lin, Fu & Leung, 2013), to more dangerous and potentially lethal acts such as self-poisoning (e.g., Kerfoot, 1988) or jumping from a height (e.g., Hawton, Rodham, Evans & Weatherall, 2002).

Further, as discussed above, the use of the general term "suicidal behaviours" by many researchers (e.g., Myers, Burke & McCauley, 1985) may conceal useful information around specific behaviours, and result in the incorrect generalisation of findings across different behaviours within a spectrum of SSHBs. Harkavy-Friedman, Asnis, Boeck and DiFiore (1987) compared subgroups of those with different suicidal behaviours, on experience with the behaviour of different groups, and found that adolescents who ideate or who attempt suicide have more experience with family "suicidal behaviour" than those who do neither, but were not different to each other, whilst for peer suicidal behaviour, those who made

suicide attempts had more experience than those with suicidal ideation, who in turn had more experience than those without any suicidal behaviour. These findings have implications for the interpretation of research studies which group together reference groups (e.g., those which ask generally about "people you know"; hence their exclusion from the current review), and those which group together behaviours (e.g., into one "suicidal behaviour" variable), as the reader may be led to believe that associations or differences exist where in fact they do not.

Finally, the reference groups about which children/adolescents were questioned, vary somewhat. The use of different terminology across studies (e.g., friends, peers and acquaintances; family members, relations, relatives etc.) permits different interpretations of the question and an increased diversity in understanding; thereby potentially eliciting inconsistent responses to the same question. With such a diverse array of – or in some cases a complete lack of – definitions of the behaviours or reference groups in question, it is unlikely that all researchers are in fact measuring the same concepts.

In terms of the real-world significance of these considerations, the literature suggests that many children and adolescents are not fully aware of the lethality of their behaviour (e.g., Fortune, Sinclair & Hawton, 2008), so suicidal intention is not necessarily a reliable predictor of seriousness. In fact, there is evidence to suggest that lethality of suicide attempt may be related to intelligence, such that a fatal attempt may simply indicate a better understanding of what actions will result in death, as opposed to a stronger wish to die (e.g., Garfinkel, Froese & Hood, 1982). As discussed in Chapter 1, inconsistent definitions of terms and methods of measurement of SSHB is the source of much difficulty in the field generally, and the findings of this review illustrate this. Whilst it is debatable quite how distinct non-fatal self-harm and behaviour with overt suicidal intent actually are, it is difficult in practice, to obtain accurate data around this, so it is perhaps therefore advisable that all SSHB be treated with some level of concern in order that unintentional death is avoided, as well as intentional, regardless of perceived intent behind those behaviours.

In addition to general inconsistency in reporting, the actual wording of questions posed to participants may have a particular impact upon participants' individual interpretations of question items, which may in turn affect study conclusions. It is unlikely that participants – particularly younger participants – will interpret the behaviours about which they are being questioned, entirely in accordance with what the researcher intended, and these discrepancies may be exacerbated where wording is ambiguous. For instance, in a study in

which an association was found between adolescent suicidal ideation or attempts and attempts or deaths in the family, Cerel and Roberts (2005) only asked about exposure to death by suicide if participants endorsed the suicide attempt question (a method which is not uncommon in this literature). Some participants may categorise these incidences separately, responding negatively to the attempt question if the person actually died, believing "attempt" to denote a *non-fatal* attempt. Other studies used one overall question to investigate four concepts – namely, whether adolescents had friends (i) or family (ii) who had attempted (iii) or died by (iv) suicide – but reported only one type of outcome (e.g., Larsson & Ivarsson, 1998). It is unclear under these circumstances which of the four possible combinations of reference group and behaviour accounts for any associations found with children's/adolescents' own behaviour. These types of ambiguities may further complicate an already convoluted field of research.

2.6.5 Samples

Although samples were frequently large (at least within the quantitative research), the relative rarity with which people actually tend to engage in SSHB means that often, samples of *those* individuals will actually be quite small in real terms, potentially making associations tricky to detect. Even in studies which *only* sample those who have engaged in SSHBs, for example the literature around clusters or contagion, samples are usually relatively small. Perhaps as a result of this, there are gaps in the literature in terms of specific behaviours (e.g., there are no family-focused papers which address self-harm specifically – see section 2.5.2). Some researchers explicitly report being unable to explore potentially interesting aspects of the data due to the limited number of individuals engaging in target behaviours (e.g., Nanayakkara, Misch, Chang & Henry, 2013), and other researchers may have clumped together groups of data for the same reason. Finally, although samples were taken from all over the world, the majority of studies were in fact undertaken in the western world, particularly in the US and the UK. The World Health Organisation (2002) reports that the majority (85%) of suicides take place in low and middle income countries, so there are issues with trying to generalise the findings of a predominantly wealthy, western sample, to suicidal behaviour worldwide.

Further difficulties with representativeness of findings come from the use of some very specific samples, or the employment of very restrictive inclusion criteria. For example, a large population-based survey of Korean adolescents (An, Ahn & Bhang, 2010) only included data from households in which all members agreed to take part and did not include

single-parent households. Whilst the former is clearly an appropriate way of ensuring the collection of data about entire households, both of these criteria increase the likelihood of potentially excluding individuals who might be particularly vulnerable. Other studies which have included parental presence in the home as a variable suggest that those from single-parent households might be at particularly high risk of these kinds of behaviours (e.g., Garfinkel, Froese & Hood, 1982). Additionally, the difference in family history of self-poisoning that Kerfoot (1988) found between children and adolescents who had been referred to psychiatric services following an episode or self-poisoning and controls, may illustrate a particular vulnerability of that particular group of psychiatric inpatients, which might not be present in others who engage in different types of self-harm, or those who are never referred to psychiatric services. Similarly, the higher rates of suicidal ideation that Tischler and McKenry (1982) found in mothers of adolescents treated in an emergency room for suicide attempt compared to mothers of controls, may reveal something specific to those who seek/require emergency medical help, as opposed to something characteristic of those engaging in suicidal behaviour, generally. It is perhaps risky to attempt to generalise based on findings from such specific samples.

2.6.6 Missing information

Several factors which may affect an individuals' behaviour or the way in which they cope with exposure to trauma, and which therefore might have an impact on the research findings reviewed here, are largely ignored in the literature. Few papers consider for example, the length of time which has elapsed since exposure, or only ask participants to report on recent exposure (e.g., within the past year). It may be that older experiences have a lesser current effect on an individual than a recent bereavement by suicide as an individual may have had longer to recover from the incident. Alternatively, years of failing to deal appropriately with such an experience may result in the individual fixating upon it, and becoming more distressed by it. Nanayakkara, Misch, Cheng and Henry (2013), for example, found that pre-existing exposure to suicide in friends or family had similar effects on adolescent suicide attempts as such exposure in the past year, so it may be that "old" exposures pose just as much risk as more recent exposures. Conversely, evidence has also been found to suggest that exposure which occurred more than a year ago may even have a *protective* effect from suicide attempts (Mercy, Kresnow, O'Carroll, Lee, Powell, Potter, Swann, Frankowski & Bayer, 2001). Either way, consideration of recentness of exposure may be important.

The number of exposures experienced by an individual is similarly overlooked, and if one considers that repeated exposure to other types of negative stimuli (e.g., violence/aggression) can result in either a cumulative (see Osofsky, 1995) or a desensitising effect (e.g., Carnagey, Anderson & Bushman, 2007), repeated exposure to SSHB may result in different outcomes for that individual, compared to the outcomes of a single exposure. Joiner (2005) suggests that repeated self-injury may habituate an individual to the fear and pain that might usually be experienced by such actions, leading them to employ more extreme and potentially lethal methods. It may be possible that repeated exposure to *others'* self-harming behaviour leads to similar habituated fear/distress responses, rendering those behaviours more acceptable or feasible for that individual. Connor, Phillips and Meldrum (2007) argue that this might be the case; they suggest that their finding of a greater risk of suicide attempt in those with relatives who have engaged in suicidal behaviour, was because those individuals got the idea from those relatives, and the behaviour was primed and rendered more acceptable to them, having been modelled by their relatives.

The closeness of the relationship between the child/adolescent and the other(s) to whose SSHB they were exposed may also determine the impact of that exposure and how profoundly it is felt or experienced, but research is lacking in this area. While some studies look at relationships or closeness as a variable in itself, they tend to ignore the effect that this might have on any association between children's/adolescents' and others' behaviours. Some studies which have found associations between family behaviour and that of the child/adolescent, and that also explored how close the relationships were, have not always reported the results (e.g., Marusic, Roskar & Hughes, 2004), so it is unclear whether closeness of relationships has any impact on those associations. It seems logical that a close relationship to someone might increase your likelihood of sharing similar behaviours, both in terms of social bonds and time spent together, and that a distressing behaviour displayed by someone about whom one cares deeply, would affect one particularly severely, so the varying results described here may be a result of differing relationships between children/adolescents and those around them, in the respective studies. Support for this can be taken from the Pfeffer, Normandin and Kakuma (1994) study, in which more suicide attempts were found in first-degree relatives of those with suicidal behaviour than those without, whereas no differences were found for second-degree relatives. One might be closer to/spend more time with first-degree relatives than second-degree relatives, but this does prompt debate over whether family similarities demonstrate a genetic association or a behavioural one, as one is also more closely genetically related to first-degree relatives than to second-degree relatives. However, a minority of studies which looked at mothers' and

fathers' behaviours separately found that associations existed between adolescents' behaviour and their mothers', but not their fathers', two people who of course share equal genetic material with their offspring (e.g., Pfeffer, 1984; Tishler & McKenry, 1982). Historically (although to a lesser extent these days, with ever-altering social and domestic structures), mothers might have been expected to spend more time at home with their offspring than did fathers, who were typically the bread-winners. This may have resulted in more similar behaviours developing between mothers and their offspring than between fathers and their offspring, but this is just speculation.

A related idea is that specific knowledge of a loved one's SSHB – which arguably may be more likely if the relationship between individuals is a close one – may be related to an increase in risk of those behaviours, through increased psychological distress (as opposed to imitation or modelling). Although no relationship was found between adolescents' and friends' suicidal behaviours in their study, Brent, Moritz, Bridge, Perper and Canobbio (1996) found that an increase in PTSD and depression following the suicide death of a friend was related to knowledge of the deceased's suicide plans, and that the development of these disorders (known in itself to be related to suicide risk, e.g., Tarrier & Gregg, 2004) was related to closeness to the deceased. Similarly, although they do not report the difference in suicidality between close friends and acquaintances (referring only to an "exposed" and an "unexposed" group), Brent, Perper, Moritz, Allman, Schweers, Roth, Balach, Canobbio and Liotus (1993) found that close friends of those who died by suicide were more prone to developing depression than were acquaintances, but both groups showed higher rates of depression than the "unexposed" group. Depression is known to be a risk factor for SSHB (e.g., Cavanagh, Carson, Sharpe & Lawrie, 2003), so an increased risk of depression in close friends relative to acquaintances may in turn ultimately result in higher levels of suicidal behaviour in those close friends. Studies excluded from this review provide support for these findings, with close friends of those who have died by suicide manifesting their own suicidal behaviour at much lower levels of psychopathology than those who were less close to the deceased, suggesting a greater vulnerability in those closer to the deceased (Brent, Kerr, Goldstein, Bozigar, Wartella & Allan, 1989). However, contradictory to these findings are those of Gould, Forman and Kleinman (1994) (reported in Brent, Moritz, Bridge, Perper & Canobbio, 1996) who claim that peers who were not close to someone who died by suicide may be more at risk than their close friends; De Luca, Wyman and Warren (2012), who found that friendship reciprocity (which could be argued might be an indicator of closeness) with those who made suicide attempts was unrelated to adolescents' own suicidal ideation or attempts; and Watkins and Gutierrez (2003) who found no difference between close friends

and acquaintances of those who died by suicide in the risk of own suicidal behaviour. As previously discussed, there is also the issue of subjective meaning to consider within these studies; the above reported findings assume a universally accepted concept of terms such as "close friend" and "acquaintance".

In partial support of these latter studies, evidence exists that poorer/less close relationships themselves may in fact increase the risk of children's/adolescents' SSHB, such that exposure to that of others merely exacerbates that heightened risk. Research has repeatedly shown that dissatisfaction with one's family relationships (e.g., An, Ahn & Bhang, 2010) is related to an increase in suicidal behaviour, whilst feelings of social connectedness may act as a protective factor (see Chapter 1). Therefore it is possible that those studies which found associations, involved participants who felt particularly unhappy or isolated within their families. Either way, closeness of relationships and feelings of connectedness may impact upon the existence of associations between children's/adolescents' behaviour and that of those around them.

Whether or not individuals have sought or received any support in dealing with exposure to others' SSHB may also alter outcomes for them. That is, those who receive counselling or some kind of postvention may be better prepared to deal with their experiences than those who receive no support. Alternatively, those who tend to seek help may place more emphasis on social interaction, such that they might be more prone to influence from external sources. Fortune, Sinclair and Hawton (2008) found that although help-seeking from professional services was rarely mentioned, those self-harmers who reported having peers who also self-harmed were more likely to seek help from their friends. Perhaps these individuals' tendency to seek help from their peers was indicative of a more general tendency to look to their peers for direction. Deliberto and Nock's (2008) findings provide evidence that some individuals may indeed be more socially-oriented than others; not only did a large proportion of their participants overtly report getting the idea to self-harm from their peers (38.3%) or the media (13.3%), those same individuals who reported starting for social reasons, also tended to report social reasons for wanting to stop. Whether or not there is indeed this "social type", pursuit or receipt of different types of support may be relevant when considering outcomes of child/adolescent exposure to others' SSHB.

Finally, the presence of alternative models for behaviour may influence outcomes, and this is something which is rarely captured in the literature. In their experimental studies described above, Sloan, Berman, Zeigler-Hill, Greer and Mae (2009) found that when mixed

information about others' self-aggression was provided (i.e. some others engaged in low self-aggression, some engaged in high self-aggression), participants were no more likely to engage in high self-aggression than they were when they received no information about others' self-aggression. This suggests that mixed information is sufficient to derail any influencing effects that others' damaging behaviour might have had over an individual's behaviour, such that those who associate with a mixture of people (i.e. including others who do not engage in or approve of any kind of self-harming or suicidal behaviour), may be less prone to influence, than are those who associate predominantly with groups supporting high levels of those attitudes or behaviours, such as certain social sub-groups (e.g., Goths; Young, Sweeting & West, 2006). Indeed Prinstein, Boergers and Spirito (2001) found that having friends who engage in pro-social behaviour acted as a protective factor against engagement in other risky behaviours (e.g., violence and substance abuse).

2.6.7 A possible protective effect of exposure to suicide

A common (although not absolute) finding throughout the current review was that exposure to a suicide *death* was less often associated with children's/adolescents' own behaviour, than was exposure to other, non-fatal behaviours. This suggests that experiencing a death through suicide may have a qualitatively different impact on an individual than does witnessing a non-fatal attempt, or non-fatal self-harm. One study (Pfeffer, Normandin & Kakuma, 1994) which looked at both family suicide attempts and deaths, found that adolescent suicidal behaviour was related to first-degree relatives' suicide attempts, but not deaths. The same has been found for friends' behaviour – Ho, Leung, Hung, Lee and Tang (2000) found a higher risk of suicidal behaviour in the friends of suicide attempters than in friends of those who died by suicide. Furthermore, a study which was excluded from the current review due to some participants exceeding the maximum age, found associations between adolescents' and young adults' suicidal ideation and their friends' suicide *attempts*, but not suicide *deaths* (Yoder, Hoyt & Whitbeck, 1998). Notably, in all three of the family studies which found no associations (section 2.5.2) and all three of the friends/peers studies which found no associations (section 2.5.3), associations were reported with non-fatal behaviours (although this may simply be reflective of the relative rarity with which individuals tend to experience suicide deaths, compared to other, related behaviours). Anecdotal evidence has suggested however, that exposure to suicide deaths may in fact work to inhibit the suicidal behaviour of an individual; as a result of witnessing the damage and misery it can cause (Brent, Moritz, Bridge, Perper & Canobbio, 1996).

Further support for this "protective" notion can be taken from the consistently reported increase in suicidal behaviour following mass-media reporting of celebrity or high-profile suicides, internationally (e.g., Cheng, Hawton, Lee & Chen, 2007; Etzersdorfer, Voracek & Sonneck, 2004; Pirkis, Burgess, Francis, Blood & Jolley, 2006). In this kind of "remote" or impersonal situation, individuals may be exposed to details of the suicide (which they can use to imitate it) and characteristics of the deceased (to which they might relate), but are never exposed to the pain suffered by those remaining (which may have acted as a deterrent). Indeed, another paper in the current review (Chan, Law, Liu, Wong, Law & Yip, 2009) found that media reporting of suicide had a greater influence on suicidal behaviour than did the suicidal behaviour of people known to the individual. Some authors even argue that this effect may not be specific to fatal behaviours. Hasking, Andrews and Martin (2013) argue that the protective effect they found that previous thoughts of self-harm provided against engaging in self-harm (in those who knew others who did so), may be due to their having experience of the impact that self-harming has on those around the individual. So whilst they may have considered it, an understanding of the consequences for others may have prevented them from enacting those thoughts; and one can only assume that the impact of a suicide death is even more profound than that of self-harming, given the finality of the outcome. These ideas are of course speculative, and cannot be confirmed or denied without further investigation. A handful of other studies reviewed which also looked at suicide deaths, found positive associations with adolescents' behaviour (e.g., Bridge, Brent, Johnson & Connolly, 1997; Cerel & Roberts, 2005; Garfinkel, Froese & Hood, 1982), so the notion of a protective effect cannot provide an adequate explanation in all circumstances.

A paper by Brent, Perper, Moritz, Allman, Friend, Schweers, Roth, Balach and Harrington (1992) raises a potential alternative explanation for the relative lack of associations found between adolescents' behaviour and their reports of knowing someone who has died by suicide. These authors reported that those who were exposed to their friends' suicide death had higher lifetime exposure to suicidality prior to the "target" suicide death, than those who were not (currently) exposed. It is possible that previous exposure to such distressing events has had an habituating effect on those individuals such that new exposures are met with less distress. Alternatively, the previous exposures may have resulted in those individuals being at an already optimal level of distress, with an increased (compared to those without exposure) but stable risk of suicidality that subsequent exposures will not affect. The data supports this latter suggestion, with those with exposure exhibiting higher levels of past, current and new-onset psychiatric disorder than those without, suggesting that the exposed individuals are indeed operating at an increased level of psychological distress. As the

majority of papers fail to take into account past exposure, an already established optimum impact of exposure previous to the one currently studied, cannot be ruled out, and the apparent lack of association may simply be an artefact of this effect.

2.6.8 Extraneous factors

Although the findings of the current review strongly suggest that associations exist between children's/adolescents' SSHB and that of people they know, it is possible that other factors are responsible for such phenomena, and that apparent associations are merely coincidental. This may be particularly true of the literature around family associations, as numerous factors are arguably shared by family members which might increase the risk of SSHBs in both the individual *and* their family simultaneously (but independently). Efforts have been made to measure potentially shared factors such as genetics, family relationships and psychopathology (e.g., Bondy, Buettner & Zill, 2006; An, Ahn & Bhang, 2010; Goldstein, Birmaher, Axelson, Ryan, Strober, Gill, Valeri, Chiapetta, Leonard, Hunt, Bridge, Brent & Keller, 2005), but it is impossible to account for all potential variables, and one must remain mindful of this when interpreting results. An example of the potential impact of other factors is described by Cerel and Roberts (2005). They discuss the possibility that their evidence of differing estimations by the adolescent and their parents of the impact of a family suicide, may result in a decrease in communication and parental monitoring, thus rendering the adolescent more susceptible to risk behaviours (such as suicide attempts). So whilst the experience of the family suicide may initiate difficulties within a family, it is not that experience in itself which results in increased suicidality in the adolescent, but rather resultant views and interactions. Similarly, rather than associations with friends' behaviour forming as a result of socialisation processes or even similar friend-selection biases, it may be that some other environmentally shared variables (e.g., poverty, bullying) result in distress, which in turn results in individuals adopting similar coping strategies. Prinstein, Heilbron, Guerry, Franklin, Rancourt, Simon and Spirito (2010) discuss this possibility as a limitation to all correlational research. However, this being the case would not account for why, out of any number of possible coping strategies, the adolescents and their family members or friends would adopt the same, relatively rare behaviour, in an effort to cope with stressors. It therefore seems unlikely that shared stressors could account solely for the relationships found within these behaviours but nevertheless, the link between child/adolescent behaviour and that of people they know may be more complex than the raw findings might suggest.

Contradictory to some of the findings reported here, some researchers have provided evidence that bereavement in general may be related to suicidal behaviour (e.g., Ajdacic-Gross, Ring, Gadola, Lauber, Bopp, Gutzwiller & Rossler, 2008; Bunch, Barraclough, Nelson & Sainsbury, 1971), as opposed to bereavement by suicide specifically. Cerel, Fristad, Weller and Weller (1999) found that suicide-bereaved children and adolescents displayed no higher levels of suicidality than those who had been bereaved by other causes. However, few of Cerel et al.'s (1999) children and adolescents had actually witnessed the suicide of their family member or been exposed to the events that followed, so this may have gone some way in protecting them from some of the suicide-specific distress experienced by others exposed to similar events, thereby reducing a potential further increase in risk of suicidal behaviour. Such findings nevertheless argue for the importance of considering the potential distress experienced upon witnessing any type of death or illness/injury of loved ones, regardless of whether it was as a result of their own actions.

Any one study cannot account for every possible variable, nor is it possible to obtain a fully comprehensive understanding of *all* important variables, without first testing for every imaginable variable (and only those variables addressed in the research can be found to be – or not be – statistical moderators/mediators/interacting variables). But it is worth bearing in mind that differing results across studies may in part represent differing levels of any of the above, or indeed other, factors. Assuming that the overwhelming findings of this review are accurate – i.e. that there are indeed positive associations between children's/adolescents' SSHBs and those of people they know – the next important consideration is why this might be.

2.6.9 Interpretation

A number of possible explanations exist for the findings of this review, many of which are addressed further throughout the thesis. The first issue worth consideration is the causal direction between individuals' own behaviour and their reports of that of others. It is possible that individuals who engage in SSHBs erroneously report that they know others who also do so, on account of their believing that others probably behave in similar ways to them (as is the case with the false consensus effect; Prinstein and Wang, 2005), or that individuals tend to associate with individuals who behave in similar ways to them (e.g., Joiner, 2003). Evidence exists that although peer-selection effects may play a role, socialisation effects are certainly present (Prinstein, Heilbron, Guerry, Franklin, Rancourt, Simon & Spirito, 2010; You, Lin, Fu & Leung, 2013), and the associations found between

family members with whom one does not *choose* to associate (see section 2.5.2) and the contagion effects in forced settings such as hospitals (e.g., Gould, Petrie, Kleinman & Wallenstein, 1994) or police custody (e.g., Cox & Skegg, 1993) argue in favour of socialisation effects an explanation.

Rosen and Walsh (1989) suggest that a need to belong to groups may partly contribute to the clusters of self-harm which they observed in adolescent inpatient settings, so conformity to perceived norms may play an important role in the transmission of these behaviours. A related mechanism through which such behaviours are transmitted is proposed by Taiminen (1992), who suggests that out of empathy for a fellow human being who has suffered, individuals may project their best qualities onto people who engage in suicidal behaviour, which increases the extent to which they can relate to those individuals, inadvertently resulting in an increased capacity to relate to the suicidal behaviour itself. By this logic, if individuals believe suicidal behaviour to be widespread or normative amongst people they know, their ability to relate to it may be increased, and their risk of engaging therein thus increased also.

The nature of SSHBs specifically may make them particularly prone to social influence. Allen, Porter and McFarland (2006) found that those participants who are more susceptible to social influence are also more prone to psychological problems such as depressive symptoms. Given that depression is relatively common in those who engage in SSHB (and vice versa), any associations observed between individuals' behaviour and that of people they know may be the result of a cumulative effect of both depression and a greater propensity for social conformity. Indeed, Mittendorfer, Rasmussen and Wasserman (2008) claim that the associations they found between family suicidal behaviour and individuals' own may be the result of a combination of both imitation or social modelling, and a genetic predisposition to psychiatric disorder. With reference to the IMV model (O'Connor, 2011; see Chapter 1), social learning or imitation of others' behaviour may represent the volitional factor which, given existent predisposing mental health distress, translates ideation into behaviour.

Complementary to the IMV model (O'Connor, 2011), Watkins and Gutierrez (2003) propose a diathesis-stress model of the effects of exposure to others' suicidal behaviour. They suggest that simply witnessing an individual ending their life would not in itself trigger another individual to do the same, but that if subsequent events occur for that individual which cause them distress with which they struggle to cope, they might recall that someone

they knew "solved their problems" by ending their life, and see that as a feasible option to solve their own problems. In support of this notion are the findings of the previously-mentioned but excluded study by Swanson and Colman (2013), which found that exposure to the suicidal death of someone known personally predicted adolescent suicidal ideation and attempts 2 years later, but only in the presence of previous stressful life events. It is possible that these proposed effects hold for perceived normative SSHB, as well as for specific exposure; that is, the belief that other people generally engage in SSHB may act as a prompt for one's own, given a particular threshold of distress has been reached.

In further support of these ideas, Durkheim (1897; see Chapter 1) proposed that imitation of suicidal behaviour is unlikely to occur without a particular predisposition, which may manifest from a combination of particular levels of social integration and regulation. For instance, an individual may be adequately integrated into society to engender conformity to perceived norms, but deficient in a strong enough societal bond to consider the effect of their behaviour on that same society. Alternatively, the individual may be sufficiently highly regulated that societal values guide their behaviour, but low enough in regulation that the impulse to conform to such a damaging perceived norm can be inhibited by conflicting attitudes. Thorlindsson & Bjarnason (1998) argue that "it is difficult to maintain that the normative force of a social group on its members is unrelated to the strength of the bond between the group and its members" (p98). These arguments further implicate the individual's social context and the extent to which the individual relates to and is willing to conform to the norm, in determining their predisposition to normative influence. It could also be argued that one of the four types of suicide described by Durkheim (1897) – namely, anomic suicide – is in itself largely dependent on the inaccurate or disorganised perception of norms. Thorlindsson & Bjarnason (1998) refer to Durkheim's anomie as consisting in part of a state of "normlessness". Anomic suicide may result when an individual is presented with ambiguous goals, conflicting social systems and importantly for current purposes, *a lack of clear norms*. Using this theoretical framework, one might reason that an individual experiencing goal ambiguity and social disorganisation, may seek behavioural guidance from unsuitable or unhelpful sources (i.e. those perceived to be engaging in SSHB), such that similar behaviours are exhibited by that individual.

2.6.10 Future directions

The overall findings of the current review offer potential directions for future research and provide several implications for practice. The current review identified a number of

conflicting findings, so firstly, systematic research around the factors which affect associations (e.g., nature of relationship to others, behaviour in question, personality and environmental characteristics) is necessary to determine exactly where associations lie, in order that they might be addressed through intervention. If, for example, systematic comparison were to suggest that certain relationships in particular exacerbated the effect of others' SSHB on that of the child/adolescent (e.g., friendship groups versus high-school pupils in general), it would make sense that interventions target the impact of those relationships specifically. It is unlikely that practitioners would ever successfully prevent children/adolescents from associating with deviant peers for example, so interventions should aim to specifically target the impact that perceptions of others' behaviour has on that of that child/adolescent.

Secondly, research is necessary to determine the exact mechanism(s) by which associations between child/adolescent SSHB and that of people they know occur. Research to date has provided a mixture of findings, and a more comprehensive understanding, using more systematic approaches, may assist in the development of effective interventions. For instance, if the SSHB of other people impacts upon that of a child/adolescent through socialisation processes, service providers might aim to introduce assessment of exposure to such behaviours when assessing risk. This may help to identify those at high risk as a result of exposure, and in particular those for whom risk may be especially high as a result of exposure combined with other, more classical risk factors (e.g., depression, impulsivity). Alternatively, if SSHB develops (or is maintained) as a result of shared group identity or reward processes, interventions should be designed which address the social constructs behind these identities, and aim to provide alternatives.

Finally, and of particular interest for the current thesis, research is needed to determine the extent to which normative perceptions impact upon the associations evident in the research to date. If it is merely the perception of others' SSHBs and attitudes towards those behaviours which is associated with a child's/adolescent's own, rather than the behaviours or attitudes themselves, more information about those perceptions would be useful. If heightened perceptions of SSHB in others or perceptions of more positive views of those behaviours in others are sufficient to increase one's own engagement therein – as has been found to be the case with other health-damaging behaviours (see Chapter 3) – interventions should be designed which aim to address these perceptions and promote healthier norms, thereby potentially reducing any related increase in behaviour. These types of interventions

have proven effective in reducing engagement in a wide array of other health-damaging behaviours, and may be similarly effective in reducing SSHB.

2.7 Summary

Overall, the current review identified a vast array of evidence for positive associations between children's/adolescents' SSHB and that of people they know. Methodological inconsistencies make direct comparison and synthesis of findings across the literature difficult, but despite variation in methods, samples and settings, the identification of associations is highly consistent (perhaps with the exception of the suicide death of others, which is slightly less consistently associated with an individual's own SSHB). Irrespective of with whom in a child's/adolescent's world their behaviour is associated, or of which particular behaviours are implicated in those associations, the findings of this review suggest that associations do indeed exist, on an international scale, and the existence of such associations warrants investigation and points to the potential for intervention development.

One factor that potentially underlies many of the studies reviewed, and which may result in perilous consequences, is the potential for a discrepancy between the extent to which individuals believe others are engaging in these behaviours, and the extent to which they actually are. Findings from social norms research in other behavioural areas indicate that perception of others' behaviour does not always match what those others report themselves, and increased perceived norms are related to an increase in one's own behaviour (see Chapter 3). The literature reviewed above relies heavily on self-reports of others' behaviour, so it is possible that these reports are overestimated, and that individuals' SSHBs are increased as a result. The extent to which young people's perceptions of others' SSHB are discrepant from others' own reports, and whether or not those perceptions influence one's own SSHB is an entirely under-researched area, and is addressed throughout the remainder of the current thesis. The following chapter provides a background to social norms theory and research, and aims to provide a theoretical context within which the current programme of research was conducted.

Chapter 3

Social Norms

3.1 Introduction

As illustrated in Chapter 2, the behaviour of others may have potent influences on that of an individual, and social psychologists and sociologists have studied this phenomenon for many years (e.g., Asch, 1951; Durkheim, 1897; Milgram, 1963). In their review of peer influences on student alcohol consumption, Borsari and Carey (2001) identified three distinct sources of influence; overt encouragement of alcohol consumption by peers, modelling (defined as "temporary and concurrent imitation of another's behaviour", p.395), and perceived social norms, which will be discussed throughout the current chapter. Although their review focused on alcohol consumption, these influences might arguably apply to other behaviours (as will be discussed), and in recent years, interest in the extent to which perceived social norms influence behaviour has grown, particularly within the health-behaviour domain. Social norms refer to the typical or "normal" rates at which most people tend to behave in certain ways or hold certain attitudes. Two types of norms are considered within the social norms literature; *descriptive norms* refer to the observable behaviour in which people engage or actions they take (the "is" norm), while *injunctive norms* (sometimes referred to as *prescriptive norms*) refer to attitudes held towards, or levels of dis/approval of, particular behaviours (the "ought" norm) (Borsari & Carey, 2001, 2003; Cialdini, Kallgren & Reno, 1991)[8]. To give an example regarding the use of seatbelts whilst driving; the associated descriptive norm might be that most people wear a seatbelt whilst driving, whilst the corresponding injunctive norm might be that most people believe you *should* wear a seatbelt whilst driving. The social norms approach involves the measurement of perceptions of these norms, comparison of these perceptions with reported norms, and investigation of the associations between perceptions and individuals' own behaviour. This information is then used to inform the practical application of social norms interventions to the reduction of

[8] In other areas of research, *subjective norms* are sometimes also considered. These refer to what individuals believe people close to them or who care about them would want them to do, but these are less often considered within the social norms approach, and will therefore not be focused upon for the purpose of the current thesis.

unhealthy or damaging behaviours, or the promotion of healthy or positive behaviours (see section 3.4, below).

Since Perkins and Berkowitz (1986) first identified discrepancies between perceived and reported norms surrounding alcohol consumption, social norms research has explored perceptions of social norms and the impact of perceived normative behaviours and attitudes on an individual's own behaviour, across a wide range of health-related behaviours, and interventions based around the social norms approach have been developed to help reduce damaging behaviours (McAlaney, Bewick & Hughes, 2010; Moreira, Smith & Foxcroft, 2009; Perkins, 2003). By measuring the behaviour and attitudes of members of a particular population, as well as their perceptions of the behaviour and attitudes of other members of that population, researchers can identify discrepancies between perceived norms and reported norms, and determine whether perceptions are predictive of individuals' own behaviours. Where perceptions of the norm are discrepant from reported norms, the social norms approach feeds back information around reported norms, in an effort to align perceptions more closely with (reported) reality. This type of approach has proven effective in reducing damaging behaviours, where over-estimations of the norm are related to an increase in individuals' own engagement in damaging behaviours (see section 3.4, below).

The majority of social norms research to date has been conducted in the US, within the field of problematic alcohol consumption, and within university student populations (see Borsari & Carey, 2001, 2003; Moreira, Smith & Foxcroft, 2009; Perkins, 2002). Increasingly however, researchers are investigating the social norms surrounding a wide range of other health-related behaviours (see section 3.2), in a number of other countries (see McAlaney, Bewick & Hughes, 2010), and within other non-student populations; particularly within adolescents (e.g., Eisenberg, Neumark-Sztainer, Story & Perry, 2005; Perkins, Perkins & Craig, 2010; Van Der Vorst, Engels, Meeus & Dekovic, 2006) and other young adult populations (e.g., Lintonen, McAlaney & Konu, 2012; Miller, Bynes, Branner, Johnson & Voas, 2013).

The broad purpose of the current thesis was to determine whether the social norms approach might be applied to SSHBs, and ultimately assist in their reduction. As discussed in Chapter 1, SSHBs are a particular problem in young people; a group within which social norms have been heavily researched (as will be discussed, below). As was also discussed in Chapter 1, myriad social factors are known to be associated with SSHBs, as are a range of behaviours in which social norms have proven relevant – including drug and alcohol use. Chapter 2

argued that in particular, exposure to – or at least perceived exposure to – SSHBs in others, may be particularly important, but the research exploring associations with one's own behaviour has assumed accurate knowledge of the behaviour of others; failing to consider that individuals' reports of others' behaviour may represent inaccurately perceived norms. The current chapter provides a background to social norms theory and research, and attempts to highlight how and why such an approach might be useful for application to SSHBs.

3.2 Social Norms Research within Health-Related Behaviours

Social norms research within a number of health-related behavioural domains has repeatedly indicated that individuals believe that others tend to behave in more negative or damaging ways than they do themselves, and that others hold more positive attitudes towards negative or damaging behaviours than they do themselves. For example, the social norms around alcohol consumption has been particularly widely researched, with evidence consistently indicating that individuals believe others drink larger quantities and more often than they report doing, and that others hold more positive attitudes towards heavy drinking than they report holding (e.g., Borsari & Carey, 2001, 2003; Perkins 2002). Such self-other discrepancies have been observed in many other behaviours, including (but not limited to) substance use in general (McAlaney, Boot, Dahlin, Lintonen, Stock, Rasmussen & Van Halt, 2012), non-medical drug use (McCabe, 2008), gambling (Larimer & Neighbours, 2003), risky sexual behaviours (Lynch, Mowrey, Nesbitt & O'Neill, 2004), intimate partner violence (Neighbours, Walker, Mbilinyi, O'Rourke, Edleson, Zegree & Roffman, 2010), sugar-sweetened beverage consumption (Perkins, Perkins & Craig, 2010), road-crossing behaviour (Rosenbloom, Hadari-Carmi & Sapir-Lavid, 2012), seatbelt use (Litt, Lewis, Linkenbach, Lande & Neighbours, 2014) and parents' provision of unhealthy snacks to their children (Lally, Cooke, McGowan, Croker, Bartle & Wardle, 2012).

Such findings become potentially problematic when one considers that evidence also indicates that individuals' perceptions of the social norms surrounding a particular behaviour consistently show positive associations with their own engagement in that behaviour. In fact, perceived norms have been shown to be even more predictive of individuals' behaviour than actual (reported) norms, general compliance to local rules and policies, and a range of demographic variables (Perkins, 2007). Individuals' normative perceptions have been shown to be related to their own behaviour within such domains as alcohol consumption (within both ordinary university student populations; e.g., Lewis & Neighbours, 2004; and

fraternities and sororities; Larimer, Turner, Mallett & Geisner, 2004), smoking (Botvin, Botvin, Baker, Dusenbury & Goldberg, 1992), marijuana use (Labrie, Grossard & Hummer, 2009), (lack of) condom use (Latkin, Forman, Knowlton & Sherman, 2003), (lack of) HIV-protective behaviours (Hawkins, Latkin, Mandel & Oziemkowska, 1999), sexual violence (Fabiano, Perkins, Berkowitz, Linkenbach & Stark, 2003), youth aggression (Bernberg, 2005), unhealthy weight-control behaviours (Clemens, Thombs, Olds & Gordon, 2008), (lack of) work-related safety behaviours (Linnan, LaMontagne, Stoddard, Emmons & Sorensen, 2005), intimate partner violence (Neighbours, Walker, Mbilinyi, O'Rourke, Edleson, Zegree & Roffman, 2010), (lack of) sun-screen use (Mahler, Kulik, Butler, Gerrar & Gibbons, 2008), sugar-sweetened beverage consumption (Perkins, Perkins & Craig, 2010) and (lack of) seatbelt use (Litt, Lewis, Linkenbach, Lande & Neighbours, 2014). For the purposes of the current thesis, it is particularly noteworthy that many of the behaviours which research has indicated are prone to normative influence, are known to be related to SSHB (e.g., alcohol consumption, smoking, drug use; Hawton, Rodham & Evans, 2006).

In addition, research has identified a range of features associated with such findings[9]. Firstly, larger self-other discrepancies tend to exist between reported and perceived injunctive norms, than between reported and perceived descriptive norms, perhaps as a result of the invisibility of attitudes compared to behaviours, and the subsequent relative absence of information on which to base perceptions. This increased discrepancy may be particularly concerning given that injunctive norms tend to be better predictors of behaviour than descriptive norms (Borsari & Carey, 2003). It has been suggested that this may be on account of the enduring nature of injunctive beliefs (in comparison to the relative context dependence of behaviour), and the importance of shared attitudes and beliefs for group cohesion (Larimer, Turner, Mallett & Geisner, 2004; also see section 3.3, below). Secondly, even in settings where reported norms are relatively high, perceptions are still exaggerated (Perkins, 2007), and perceived norms tend to be largest in those who engage in higher rates of the associated behaviour themselves, although the magnitude of discrepancies between reported and perceived norms shows an inverse relationship with personal behaviour levels (Carey, Borsari, Carey & Maisto, 2006). Carey et al. (2006) suggest that this is simply because the "self" component of the self-other discrepancy is higher than in those who do not partake heavily in the relevant behaviour. Thirdly, as one might expect, discrepancies

[9] The majority (although not all) of such features have been identified through the investigation of alcohol norms, simply as this is the most heavily-researched area within the social norms field. Where research exists within other behavioural domains however, the findings tend to be comparable.

between perceived and reported norms tend to increase as distance between the perceiver and the reference group increases. That is, larger discrepancies will be found for distal groups such as "students in general" than for more proximal groups such as "your close friends" (Clemens, Thombs, Olds & Gordon, 2008). This may be on account of individuals' familiarity with close groups' behaviour, relative to that of more distant groups, enabling more accurate and less exaggerated perceptions. Fourthly, and perhaps counter-intuitively, discrepancies tend to be larger in smaller settings compared with larger settings – e.g., in small university campuses (Borsari & Carey, 2003). Borsari and Carey (2003) argue that this may be on account of individuals' belief that proximal groups are more representative of the entire population in smaller settings than they might be in larger settings where members of proximal groups are outnumbered, and the lower perceptual discrepancies usually observed for proximal groups results in lower discrepancies overall (through transfer of those perceptions to the wider population). Finally, the associations between perceived norms and individuals' own reported behaviours are strongest for proximal group norms, and it has been suggested that this is because the norms of proximal groups are simply more difficult to ignore than the norms of more distal groups (Borsari and Carey, 2003). It has also been posited that the strength of associations increases as an individual's identification with a group increases (Neighbours, Labrie, Hummer, Lewis, Lee, Sruti, Kilmer & Larimer, 2010), and that normative influence in general is strongest when a reference group is highly relevant to the perceiver (Miller & Prentice, 1994; Prentice & Miller, 1996), perhaps because strong identification with a particular group is associated with the experience of positive emotions upon conforming to that group's norms (Christensen, Rothgerber, Wood & Matz, 2004).

As well as features of the reference group and the norms themselves, characteristics of the perceiving individuals may also be relevant to normative perceptions and their influence on behaviour. For example, females may be particularly prone to discrepancies between perceptions and reported norms (Borsari & Carey, 2003), and might also be more resistant to perception change (e.g., Schroeder & Prentice, 1998; Prentice & Miller, 1993). As discussed above, women – as typically lighter drinkers than men – might be prone to larger self-other discrepancies than men simply because they drink less, and women's "self" component is thus lowered in comparison (Carey, Borsari, Carey & Maisto, 2006). Prentice and Miller (1993) posit that women's comparative resistance to perceptual change is the result of alcohol consumption representing a less integral part of their social experience than of men's, such that women perceive alcohol norms as less relevant to them and thus their behaviour is relatively unaffected. These explanations may all be unique to alcohol norms

though, as men are more often associated with heavy drinking than are women, or to student samples, as the typical student tends to be perceived as male (Lewis & Neighbours, 2006a), such that in either case, both men's and women's perception of norms may reflect the perceived norms for *men.* Such features may have implications for targeted interventions based on alterations of perceived norms (see section 3.4, below). Age also appears to be a factor in the perception of social norms, with larger self-other discrepancies found for younger groups than older groups (e.g., McAlaney & McMahon, 2007), and particularly large effects found in studies of younger adolescents (e.g., Lintonen & Konu, 2004). Additional dispositional and environmental features including social anxiety (Neighbours, Fossos, Woods, Fabiano, Sledge & Frost, 2007), social support (Cullum, O'Grady, Sandoval, Armeli & Tennen, 2013) religiosity (Neighbours, Brown, Dibello, Rodtriguez & Foster, 2013), and the extent to which the individual is focused upon external norms (Cialdini, Kallgren & Reno, 1991), have all been shown to impact upon normative perceptions and the relationship between perceptions and behaviour. Full consideration of these features is beyond the scope of the current thesis, but it is worth bearing in mind that a range of factors can impact upon the perception of norms and the associations between those perceptions and an individuals' own behaviour.

3.3 Theoretical Underpinnings

Despite the robust evidence base for self-other discrepancies and the associations between perceived social norms and behaviour, explanations regarding why these effects occur are lacking, and the theoretical underpinnings of such phenomena are relatively poorly understood. It has been suggested that discrepancies occur between perceived and reported norms because relatively rare instances of visible problem behaviour are better remembered by individuals who observe them than more common instances of healthy behaviour (which might also be less visible – e.g., *not* getting drunk), and heightened recall for such incidences thus results in their being perceived as normative (e.g., Perkins, 1997). This perceived norm is then used to guide one's own behaviour under the assumption that if others behave in that way, it must be acceptable or appropriate to do so (Cialdini, Reno & Kallgren, 1990). This notion lends itself well to such behaviours as alcohol consumption and smoking which are clearly visible in normal settings, but would not account for the discrepancies observed within less visible behaviours such as risky sexual behaviours or unhealthy eating (as even the most extreme engagement in such behaviours is unlikely to be observed by most people), nor does it offer any explanation for the even larger self-other discrepancy observed for

injunctive norms, which of course are not easily observable either. Injunctive norms might be particularly interesting from a theoretical standpoint because intuitively, one might assume that as hidden or abstract constructs, attitudes might be less prone to social influence than behaviours, and yet in actual fact, perceived injunctive norms show particularly strong associations with individuals' reported behaviour (Borsari & Carey, 2003), and the effects of injunctive norms on individuals' own behaviour may continue to be observed long after exposure to normative messages (Larimer, Turner, Mallet & Geisner, 2004; Mollen, Rimal, Ruiter, Jang & Kok, 2013). It has been suggested that individuals' inclination to conform to perceived injunctive norms is driven by a desire for affiliation with others and for social approval (see Mollen et al., 2013, and section 3.2, above). Whilst descriptive norms may provide a guide for appropriate behaviour within the current context (and are therefore good predictors of current behaviour), attitudinal norms are not confined to situational boundaries, and may therefore provide more stable, trans-situational guides for behaviour based upon shared values (Mollen et al., 2013). In general however, theory regarding the development and impact of perceptions of injunctive norms is arguably somewhat inadequate.

Despite the relative absence of specific theory around social norms, more general psychological theories around attribution may be drawn upon to help explain why normative perceptions often fail to reflect reported norms, and why perceptions are related to behaviour. One such theory is that of *pluralistic ignorance.* Pluralistic ignorance (e.g., Miller & Prentice, 1994; Prentice & Miller, 1993, 1996) refers to the tendency to believe that despite behaving in similar ways to others, one is privately different from everybody else, whilst others are all the same as each other. That is, an individual may behave publicly in ways similar to the majority whilst holding discrepant internal beliefs, but they believe that other people's internal beliefs match their public behaviour. So in terms of alcohol use for example, this may manifest as keeping up with the university drinking culture whilst privately feeling uncomfortable with it, but believing that everyone else is comfortable with heavy drinking. It has been suggested that such effects occur through fear of the embarrassment which might ensue upon revealing attitudes or beliefs which diverge from the norm (e.g., Miller & Prentice, 1994). In order to avoid feelings of alienation and deviance from the group, individuals may behave in ways which enable them to appear similar to (their perception of) others (e.g., Prentice & Miller, 1993). It is difficult to see how this would account for the self-other discrepancies found on anonymous social norms surveys, but it might certainly help to explain how exaggerated norms of such "status gaining" behaviours as smoking and alcohol consumption might be proliferated and how they are in turn associated with individuals' behaviour, particularly given that pluralistic

ignorance may be at its strongest in situations where social approval is desired (Miller & McFarland, 1991).

An alternate but not incompatible theory which might help to account in part for some of the phenomena observed around social norms is of the *false consensus effect*. False consensus refers to the tendency to believe that others are similar to oneself and behave in similar ways when in fact they are/do not (Ross, Green & House, 1977). This bias may account for why those who engage more excessively in a particular behaviour tend to have higher estimations of others' engagement therein as well. Although false consensus may at first appear contradictory to pluralistic ignorance, Prentice & Miller (1993, 1996) argue that individuals' behaviour can be both correlated with, yet discrepant from, their perceptions of others' behaviour. Whilst false consensus may help to account for perceptions of others' behaviour, it does not help to explain why an individual's behaviour is related to their perceptions of that of others.

Actor-observer bias refers to the belief that others' behaviours are indicative of disposition, whilst one's own behaviours are context dependent and situation-appropriate (Jones & Nisbett, 1971). In terms of alcohol norms for example, an actor-observer bias might manifest as the belief that although one may drink to excess on a particular occasion, this is an appropriate response to current situational demands and does not mean that one is a heavy drinker per se, whilst observing others drinking excessively is seen as indicative of their habitual heavy drinking. This theory, compatible with pluralistic ignorance, might account for individuals' tendency to overestimate injunctive norms, in that individuals believe that others' observable behaviour is directly related to their attitudes, but again, it fails to account for the associations observed between individuals' behaviour and their perception of that of others.

In addition to the development of discrepancies between perceived and reported norms and the impact that perceptions have on individuals' behaviour, features associated with the communication of norms are theorised to exacerbate the norm-related heightening of unhealthy or damaging behaviours. Evidence for the impact of poorly communicated messages about damaging behaviours was previously discussed with regard to SSHB in Chapter 1, in terms of the development of clusters and the impact of irresponsible media reporting of suicide, but similar effects may be responsible for the spread of normative beliefs generally. For example, the widespread reporting of "youth binge drinking" in the media, and the portrayal of heavy student drinking in films (e.g., "Old School") may

exacerbate the issue through the inadvertent implication that heavy drinking is the norm within those populations. According to Carey, Borsari, Carey and Maisto (2006), the increased tendency of individuals to talk about instances when they engaged in drunken behaviour relative to times when they were sober, may further shape general perceived prevalence of drunken behaviour. Traditional health-promotion campaigns which highlight the supposed "extent of the problem" and potential consequences of damaging behaviours (such as those illustrated in Figure 3.1, below) might arguably also increase perceptions of unhealthy norms through the implication that such events are more common than they actually are, thus increasing engagement in the relevant behaviour. Each of these modes of communication may subtly add to individuals' already heightened perceptions that damaging behaviours are more normative than they in fact are.

Attribution theories like pluralistic ignorance, false consensus effects and actor-observer bias may all in part account for the patterns observed within social norms research, and it is clear that communication of normative messages are likely to impact upon how norms are perceived, but there is currently no unifying theory that fully explains the phenomena identified through social norms research. As discussed in Chapter 1, the development of integrated, comprehensive theory is essential for progression within any psychological field of study, and in forming testable hypotheses to further increase understanding, so the current lack of specific empirically-tested social norms theory represents a major gap in the literature.

3.4 Social Norms Interventions

Although relatively lacking in theoretical elucidation, the potential utility of the social norms approach is evidenced by the successful implementation of a number of social norms interventions to reduce damaging behaviours. Traditionally, health-promoting and pro-social interventions have focused on educating people about the risks and negative outcomes associated with engaging in health-damaging or anti-social behaviours (or failing to engage in health-promoting or pro-social behaviours), typically utilising "scare tactics" and highlighting worse-case scenarios (McAlaney, Bewick & Hughes, 2010). Figure 3.1 illustrates some typical examples of the types of health-promotion advertising campaigns which have been employed, historically. Reviews of intervention evaluations have argued that the effectiveness of traditional campaigns may be limited (e.g., Foxcroft, Ireland, Lister-Sharp, Lowe & Breen, 2003), perhaps because such campaigns incorrectly tend to assume

people have limited knowledge of the risks (McAlaney, et al., 2010), and because people may be prone to optimism bias; the tendency to dismiss risk, believing negative events or consequences are unlikely to befall them (Weinstein, 1980). Furthermore, highlighting negative behaviours and exaggerating their prevalence may be damaging, considering that individuals' behaviour is related to their perception of the norm (see sections 3.2 and 3.3, above). The social norms approach, on the other hand, employs the use of more positive messages, highlighting the healthy behavioural and attitudinal norms of the majority in an attempt to harness and make positive use of individuals' tendency to conform to perceived norms.

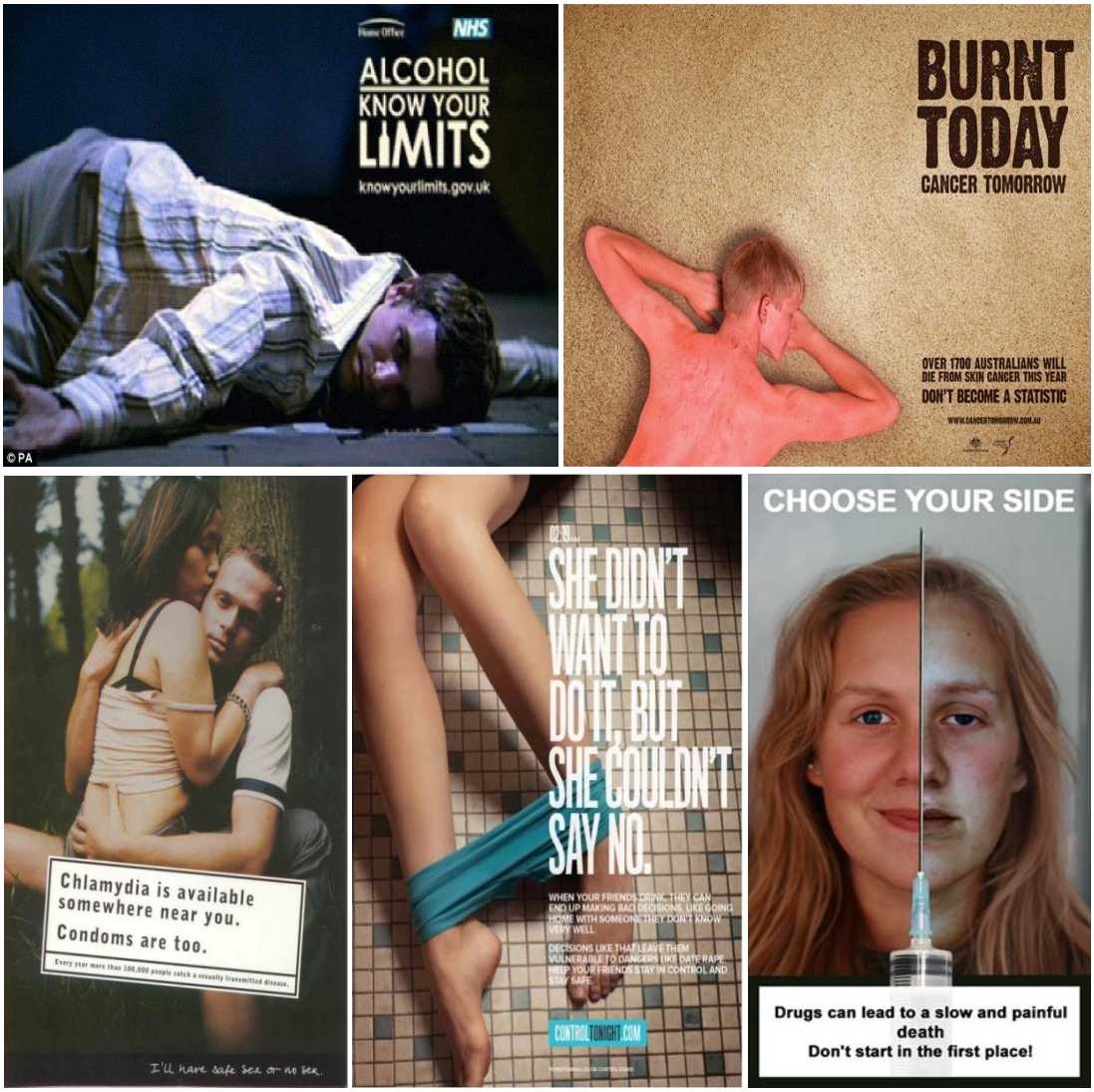

Figure 3.1: Traditional health-promotion campaigns.

Specifically, interventions based on the social norms approach aim to reduce the discrepancies often found between perceived and reported norms by providing the target

group with feedback regarding reported norms, thereby reducing self-other perceptual discrepancies and any related increase in individuals' own behaviour (McAlaney, Bewick & Hughes, 2010). This is typically achieved through the distribution of social norms marketing materials and the provision of feedback regarding reported norms of the target population. Social norms campaigns have most commonly been implemented in schools and universities, as such environments provide ideal settings within which both to ascertain self-reported norms, and to distribute normative feedback messages.

Berkowitz (2004) describes three distinct types of social norms interventions; *universal*, in which generic social norms messages are distributed throughout a particular community (some examples of which are illustrated in Figure 3.2); *selective*, in which particular members of the community are targeted and provided with feedback around the reported norms specific to that group; and *indicated*, in which high-risk individuals are provided with personalised normative information alongside individualised interventions specific to that individual. Evaluations have provided evidence for the effectiveness of all three types of intervention, as indicated by the reduction of the target behaviour (see Berkowitz, 2004). More recently, other approaches have also been employed; including the provision of personalised feedback to the entire community (e.g., Pischke, Zeeb, van Hal, Vriesacker, McAlaney, Bewick, Akvardar, Guillen-Grima et al., 2012).

Successful universal campaigns typically employ the distribution of norms messages throughout a particular community (e.g., university campus, schools) via the use of print media or electronic/web-based media (e.g., Bewick, West, Gill, O'May, Mulhern, Barkham & Hill, 2010), but effective campaigns have also included class projects and curriculum and staff development components (Perkins & Craig, 2002). Successful selective campaigns use such strategies as inviting members of a particular high-risk demographic (in the case of alcohol consumption for example, this has included first-year students, sports team members, and sorority/fraternity members) to group sessions or workshops at which they receive information about and/or are invited to discuss the norms for their particular group (e.g., Far & Miller, 2003). Other selective campaign formats such as theatre-style presentation of norms messages (e.g., Cimini, Page & Trujillo, 2002) have also proven effective. Successful indicated interventions have employed training in cognitive-behavioural self-management and harm-reduction techniques, with a self-other comparative norms component (e.g., Dimeff, Baerk, Kvilahan & Marlatt, 1999). A Cochrane review of social norms interventions to reduce student alcohol consumption provided evidence that in particular, web-based and individual face-to-face feedback are the most effective forms of

intervention (Moreira, Smith & Foxcroft, 2009), but evidence suggests that the effectiveness of interventions may depend on a number of variables, including the method of intervention delivery (Moreira et al., 2009), the level of exposure to social norms messages, the perceived credibility and relevance of those messages, and individual levels of alcohol consumption (Moore, Williams, Moore & Murphy, 2013).

Figure 3.2: Social norms campaigns.

In addition to the numerous successful social norms interventions around alcohol consumption which have been employed in university settings (e.g., Lewis & Neighbours, 2006b), similar interventions have proven effective in the reduction of substance use

generally, within high-school populations (e.g., Balvig & Holmberg, 2011), and within a growing range of other behavioural domains. To date, evidence has shown that the social norms approach has elicited a reduction in drink-driving (Perkins, Linkenbach, Lewis & Neighbours, 2010), a reduction in marijuana use (Elliot & Carey, 2012), a reduction in bullying and an increase in the reporting of bullying (Perkins, Craig & Perkins, 2011), a reduction in rape-supportive attitudes (Hillenbrand-Gunn, Heppner, Mauch & Park, 2004) and an increase in positive sexual attitudes (Bruce, 2002), an increase in sun-protection behaviours (Mahler, Kulik, Butler, Gerrar & Gibbons, 2008), an increase in HIV-prevention behaviours (Latkin, Donnell, Liu, Davey-Rothwell, Celentano & Metzger, 2013), and an increase in environmental conservation behaviours (Goldstein, Cialdini & Griskevicius, 2008). Preliminary work suggests that such approaches might also be useful within such domains as unhealthy weight management behaviours (Eisenberg, Neumark-Sztainer, Story & Perry, 2005), violence and sexual assault (see Berkowitz, 2010), male support against violence towards women (Fabiano, Perkins, Berkowitz, Linkenbach & Stark, 2003), and other social ally behaviours (e.g., the support of non-bullied individuals against bullying, the support of heterosexuals against discrimination towards homosexuals; see Berkowitz, 2002, 2004). The range of behaviours within which the social norms approach has proven effective argues for its potential efficacy as an approach to the reduction of other behaviours which are influenced by social factors.

3.5 Challenges within Social Norms Research

The aforementioned lack of theoretical explanation for the phenomena observed within social norms research is an obvious limitation, as an understanding of the mechanisms by which social norms influence behaviour and can be used to reduce damaging behaviours, would be advantageous. The approach is also subject to further criticisms and debates. Many of the criticisms of the approach have been contended with arguments highlighting methodological flaws specific to individual studies (e.g., McAlaney, Bewick & Hughes, 2010; Perkins, 2012), but some limitations and debates within the field are worthy of closer attention.

The first point worthy of note is the recent debate around the terminology used within the field. Traditionally, the discrepancies so often observed between reported and perceived norms were referred to as “normative misperceptions” (e.g., Lintonen, McAlaney & Konu, 2012; Neighbours, Dillard, Lewis, Bergstrom & Neil, 2006; Perkins, Perkins & Craig,

2010); that is, such discrepancies were assumed to represent a misperception of the norm, on the part of the observer. The use of such terminology has been criticised however, on account of difficulties inherent to accurately measuring actual rates of behaviour, particularly given the widespread use of self-report in the collection of such data (e.g., Pape, 2012). As such, it becomes difficult to determine for certain whether observed discrepancies between reported and perceived norms represent inaccuracies in perception, or simply represent actual discrepancies between that individual's and others' behaviour. Although some researchers remain adamant that normative behaviours are misperceived (e.g., Perkins, 2012), there has been a resultant move within the field towards the use of more general terminology; referring only to perceptions and reports of behaviours, in the absence of assumptions around accuracy.

Secondly, an ongoing ambiguity within the field is the direction of influence between perceptions of norms and individuals' own behaviour; i.e. whether perceived norms exert influence on subsequent behaviour, or whether one's own behaviour influences subsequent normative perception. The former is often assumed, but a relative lack of longitudinal and randomised-controlled research in the field renders this assumption tenuous. The longitudinal research that does exist has shown that influence may be bidirectional, with perceptions and behaviour each exerting some influence over the other (e.g., Prinstein, Heilbron, Guerry, Franklin, Rancourt, Simon & Spirito, 2010). However, it has been argued that although perceived norms and own behaviour show some influence over each other, perceived norms are better predictors of behaviour than behaviour is of normative perception (e.g., Neighbours, Dillard, Lewis, Bergstrom & Neil, 2006), and the efficacy of social norms interventions in reducing damaging behaviours through the reduction of normative perceptions (see section 3.4), argues for a definite impact of perceptions upon behaviour. Such findings support the utility of normative perceptions in the reduction of damaging health behaviours, but highlight the importance of longitudinal research for topics in which cause and effect are important (as is the case with research focusing on the reduction of health-damaging behaviours). A dearth of qualitative research in the field presents a further, related limitation, in that quantitative methodology can only account for "what?" questions, necessarily omitting much of the contextual and explanatory detail which might be captured through qualitative inquiry (see below and Chapter 4 for further discussion of this issue).

Another potential concern within social norms research is its almost exclusive reliance on self-report methodology. The potential for inaccuracy of self-report data about others' behaviour is a concept of interest for social norms research, so this is not necessarily a

limitation, as it might be in other fields. As discussed in Chapter 2 however, self-report measures are susceptible to many kinds of bias and some of these may affect social norms data. The self-other discrepancies found in individuals' reports of negative or damaging behaviours for example, may be illustrative of reduced reporting of participants' own negative behaviours (as opposed to the over-reporting of that of others), perhaps through embarrassment or in an attempt to differentiate themselves from the crowd or to appear more favourable (e.g., Tourangeau & Yan, 2007). It has also been suggested that asking participants similar questions about their own and others' behaviours leads them to infer that comparisons will be made, and their responses are therefore self-serving, in order to appear "better" than others. Melson, Davies and Martinus (2011) found that the use of multiple-target questionnaires (i.e. including both self-referent and peer-referent items) yielded exaggerated perceptions of norms compared to those captured by single-target questionnaires (including only items referring to one's own behaviour or to others' behaviour, but not both). The authors posit that this is because the presence of items referring to both self and others encourages social comparison, and a self-serving bias is thus activated. One might expect that if these conclusions were accurate, the order in which individuals are asked to rate their own and their peers' drinking might be important (in that they may or may not be pre-warned about potential comparison). However, Baer, Stacy and Larimer (1991) demonstrated no such effects when individuals were asked to rate others' drinking before, compared to after, their own. Additional evidence against a self-serving bias is also provided by studies which have compared objective measures of individuals' own behaviour with their self-reports, which have shown that whilst under-reporting may occur in some participants, some individuals in fact *overstate* their engagement in damaging behaviours (e.g., Thombs, Olds & Snyder, 2003), and by a review of studies which included additional informants on an individual's behaviour, which found little discrepancy with their self-reports (Borsari & Muellerleile, 2009). Further, most social norms surveys are anonymous, so participants' motivation to deceive may be limited. Under-reporting of one's own behaviour would therefore seem unlikely to fully account for overall findings.

Concerns have also been raised about the representativeness of participants of social norms research, and the subsequent generalisability (e.g., Pape, 2012). The majority of social norms research to date has been conducted within university student samples, has employed self-selection of participants, and has focused on alcohol consumption. The use of alcohol in young people may represent a relatively unique concept, such that generalising findings to other groups and other behaviours may not be appropriate. For example, drinking and getting drunk may be associated with popularity and the receipt of social rewards (e.g.,

Balsa, Homer, French & Norton, 2011), and may therefore be less likely to be seen as undesirable behaviours by this population compared to other populations (for whom normative perceptions and associations between perceptions and behaviour may well differ). Furthermore, individuals who display particular drinking patterns may be more or less likely than others to self-select for participation (for example through embarrassment, or enhanced interest), further rendering results non-generalisable. As described in section 3.2 however, a growing body of evidence indicates that similar effects are to be found in other groups and within a wide range of behaviours, so whilst youth drinking may be experienced differently to other behaviours within other groups, it seems that the impact of normative perceptions on one's own behaviour may be comparable, regardless. Furthermore, the social norms approach only aims to change the normative perceptions and related behaviours of the group within which those concepts have been measured, and does not claim that distribution of normative messages for that group will have any impact on the normative perceptions or behaviour of other groups, so generalisability is not as relevant as it might be within other types of research and interventions.

A final noteworthy criticism of the approach refers to three significant gaps in the literature. Firstly, as briefly mentioned above, despite an ever-increasing number of quantitative social norms surveys across a broad range of behavioural domains, there is a notable lack of qualitative research within the social norms literature. As will be argued in Chapter 4, whilst quantitative research is invaluable in determining the existence of statistically-verifiable phenomena and characteristics thereof, it is limited in its explanatory capabilities, and qualitative research is arguably required to assist in interpretation and theoretical elucidation. Secondly, although there are numerous reports of effective implementation of social norms interventions, evaluations of some types of interventions are lacking, and where they do exist, they are limited in their design and many only evaluate the process of intervention, as opposed to outcomes (e.g., Bewick, Trusler, Barkham, Hill, Cahill & Mulhern, 2008). Recent studies with more rigorous (randomised-controlled) designs have indicated that interventions may be effective in reducing target behaviours (e.g., Bewick, West, Gill, O'May, Mulhern, Barkham & Hill, 2010), although evidence suggests that simply being involved in a research study – even in the absence of intervention – may have an impact on subsequent behaviour (e.g., Mangione-Smith, Elliot, McDonald & McGlynn, 2002; Murray, Swan, Kiryluk & Clarke, 1988), such that it is difficult to state categorically that interventions themselves are specifically reducing the behaviour. Finally, an inexplicable lack of interventions utilising injunctive norms have been implemented, despite their apparent stronger association with behaviour (Borsari & Carey, 2003). This may in part

be the result of difficulties inherent in measuring abstract – as opposed to behavioural – concepts, and converting them into clear and precise normative messages for dissemination, but the absence of such interventions nevertheless represents a gap in the literature and subsequently, in our understanding of the potential utility of perceived injunctive norms in reducing damaging behaviours.

3.6 Rationale and Aims of Current Thesis

3.6.1 Rationale

The overarching aim of the current thesis was to determine whether the social norms approach might be applicable to the reduction of SSHBs in high-risk groups. To the current author's knowledge, despite largely consistent evidence that an individual's SSHBs are susceptible to other types of social influence (e.g., media influence, contagion – see Chapter 1; reported exposure to similar behaviour in others – see Chapter 2), whether the social norms approach *specifically* might be applicable to those behaviours has yet to be investigated. The research exploring associations between individuals' SSHB and that of others tends to assume knowledge of those behaviours in others, and neither considers that individuals may be basing their reports on perceptions of norms, nor that there might be discrepancies between what is perceived and what would be reported by others themselves. As such, to the current author's knowledge, the perceived social norms of SSHB have yet to be investigated.

As discussed above, perceived social norms have proven relevant in the study of a wide range of health-damaging behaviours, and interventions based on the social norms approach have been effectively employed in reducing those behaviours. In particular, evidence suggests that many behaviours which consistently show associations with SSHBs (e.g., alcohol consumption, smoking, drug use; see Chapter 1), may be especially susceptible to the influence of perceived social norms. As such, the current thesis was designed to determine whether similar patterns to those observed in the social norms literature within other behavioural domains, exist within SSHBs, and whether the social norms approach might therefore be applicable to SSHBs. In terms of longer-term impact, it was hoped that the current research might provide some background upon which the potential future development of social norms interventions to reduce SSHBs, might be based.

The current research also aimed to address a number of other gaps in the literature. In addition to neglecting to distinguish between knowledge and perception of others' SSHBs, existing research into the impact of others' behaviour on individuals' own tends also not to use specific, defined reference groups, and when it does, it focuses only on friends and family (none of the studies identified in Chapter 2 referred to reference groups such as "pupils at your school" or "students the same age as you", for example), such that the specific impact of particular groups on an individual's behaviour is poorly understood. The current research therefore questioned perceptions of a number of specific reference groups in order to explore the relative impact of each group's behaviour on an individual's own. The current research also explored these issues within both high-school pupils (up to the age of 18) and university students (aged 18 and over), in order to investigate age-related similarities and differences within these two high-risk groups. Finally, in addition to the quantitative methods used to address the above issues, the current research also employed qualitative methods aimed at extending what is known about the development and trajectory of individuals' normative perceptions, thus contributing to addressing a major gap in the literature.

3.6.2 Aims

In summary, the overall aims of the current thesis were therefore:

- To explore how individuals at particularly high risk for SSHBs (namely, university undergraduates and adolescents) perceive normative engagement in, and approval of, SSHBs in a range of other groups, in comparison to their own.
- To determine whether perceived normative engagement in, or approval of, the SSHB of other groups is related to (or predicts) individuals' own behaviour or attitudes.
- To investigate the beliefs behind, and context surrounding, individuals' perceptions of others' SSHBs, in order to gain an understanding of the aetiology of normative perceptions.
- To provide some indication as to whether or not the social norms approach might ultimately be applicable to SSHBs, and consequently, whether interventions based on the approach might be effective in reducing them.

3.6.3 Considerations

There are some obvious differences between SSHBs and other behaviours which have been studied using the social norms approach, which deserve consideration in attempting to apply previous social norms theory within this field. Firstly, and as will be discussed in more detail in Chapter 4, the typical strategy employed within social norms research of asking individuals to report on their own behaviours and attitudes and their perceptions of others' behaviour and attitudes, is obviously not possible where the behaviour of interest is dying by suicide. In the absence of means by which to collect self-reports of fatal suicide acts, the current thesis therefore explored the perceived and reported norms around thoughts of self-harm, acts of self-harm, thoughts of suicide, and suicide attempts only.

Secondly, whilst the discrepancies so regularly observed between perceived and reported norms in other areas might in part occur due to individuals' inability to know for certain the exact behaviours of others, an individual's likelihood of possessing accurate knowledge of people around them having died by suicide is perhaps relatively increased – particularly in those close to them – on account of the extremeness of such an occurrence, in comparison to friends getting drunk, for instance. As such, the suicide death of others might be more accurately described as something which is experienced, as opposed to perceived, and even if it were possible to do so, the study of self-other discrepancies might therefore not be appropriate. Conversely, the secretive nature with which many individuals engage in SSHBs (Conterio & Lader, 1998; Favazza, 1992) may result in relatively decreased accuracy in perceptions of those behaviours which do not result in death, so the potential for self-other discrepancies in non-fatal behaviours might be more similar to those previously found within other domains. It is worth noting however, that for both fatal and non-fatal SSHBs, perceptions of more distal groups' behaviours (e.g., "people your age in general") – as opposed to those of more proximal groups (e.g., close friends) – might reasonably be expected to be potentially prone to inaccuracies (as has been found to be the case in other domains – see section 3.2, above), and might therefore lend themselves better to the investigation of social norms (see Chapters 4, 5 and 6 for further discussion of these points). Indeed, evidence suggests that young people massively over-estimate national youth suicide rates (e.g., Beautrais, Horwood & Fergusson, 2004).

A final feature which might differentiate SSHBs from some of the other behaviours which have been investigated within social norms research (and which is discussed further in Chapter 4), is their inherent moral or ethical ambiguity. Whilst some behaviours are widely perceived as good (e.g., sunscreen use; Rademaker, Wylie, Collins & Wetton, 1996), and others are more often considered bad (e.g., smoking; Porcellato, Dugdill, Springett &

Sanderson, 1999), young people's attitudes towards SSHBs are far less consistent (e.g., Beautrais, Horwood & Fergusson, 2004; Domino, Gibson, Poling & Westlake, 1980). Given that social norms research to date indicates that individuals tend to believe that others behave in more negative or damaging ways than they do themselves (see section 3.2, above), such ambiguities might have implications for the potential direction in which, and/or extent to which, perceptions of others' SSHB might relate to individuals' own. The beliefs behind normative perceptions of SSHBs are therefore an important consideration in determining how those perceptions might be used to reduce such behaviours.

3.7 Summary

The social norms approach compares perceptions of social norms within a target population with the reported norms of members of that population, and explores the predictive effect of any discrepancies over an individual's own behaviour and attitudes. Individuals' perceptions of the social norms surrounding a particular behaviour tend to be related to their own engagement therein, but social norms are often overestimated, such that discrepancies between perceived and reported norms may be related to higher rates of individual engagement in a particular behaviour. Interventions which provide feedback on reported norms, thus aligning perceptions more closely with reported norms, have proven effective in reducing a range of health-damaging behaviours.

The social norms of SSHBs, however, have never been investigated, and in turn, neither has the existence of discrepancies between perceived and reported norms of those behaviours, or any association thereof with an individual's own behaviour. Should similar discrepancies exist within SSHBs as have been shown within other behavioural domains, the social norms approach may provide strategies for intervention, similar to those which have proven effective in the reduction of other health-damaging behaviours. The current thesis therefore aimed to determine whether the social norms of SSHBs follow similar patterns to those observed within other behaviours, in order to ascertain whether the social norms approach might be applicable to the future reduction of SSHBs. In addition, the current programme of research hoped to further contribute to the literature by exploring these issues within two different high-risk groups, and using both quantitative and qualitative methodology to further theoretical understanding of social norms. The following chapter discusses some of the methodological considerations for such a programme of research, and provides a rationale for the methods which were chosen.

Chapter 4

Methodology

4.1 Introduction

The lack of research to date which has been conducted around the social norms of SSHBs means that there is no existing precedent for how the study of such a concept should be conducted. Whilst previous social norms research was drawn upon as a model (e.g., Franca, Dautzenberg, Falissard & Reynaud, 2010; Larimer & Neighbours, 2003; Perkins, Meilman, Leichliter, Cashin & Presley, 2010), the intrinsic disparity between SSHBs and other health-damaging behaviours which have been investigated using the social norms approach necessitated a slightly different methodological approach in their investigation. Given the complex nature and relative rarity of the particular behaviours of interest to the current thesis, and the fact that some of those who have engaged in some of the behaviours of interest will necessarily be deceased, it would not be appropriate to simply substitute incidents of the behaviour directly, as one might with other behaviours (e.g., number of cigarettes smoked per week).

Ambiguity surrounding the acceptability or "wrongness" of SSHBs, compared to the well-established understanding from a young age that for example, smoking is bad for you (Porcellato, Dugdill, Springett & Sanderson, 1999), whilst sunscreen use is good for you (Rademaker, Wylie, Collins & Wetton, 1996), introduced further potential complications with the research, in terms of the likely diversity of views across individuals with differing experiences and beliefs. For example, given that individuals tend to believe that others behave in "worse" ways than they do themselves (see Chapter 3), differing views around whether SSHB is "wrong" or "bad", or is, for example, a symptom of mental distress for which the individual is not to blame, may impact upon an individual's subsequent estimations of others' engagement in those behaviours. It would therefore be insufficient just to compare individuals' self-reported behaviour and attitudes to their perceptions of others' behaviour and attitudes, as should no differences emerge, this may simply be indicative of more sympathetic attitudes (rather than negative or "blaming" attitudes), for example, as opposed to the absence of the perception that others behave in worse ways or hold more damaging attitudes than oneself.

It was therefore decided that a mixed-methods approach would be the most appropriate methodology for such a novel investigation of the norms surrounding such complicated behaviours. It was decided that quantitative social norms surveys, approximate (as far as possible) to those previously employed for the examination of the social norms of other health-damaging behaviours, would be used to examine differences in perceptions of others' behaviour and attitudes and individuals' own, and predictors of individuals' behaviour and attitudes; thereby rudimentarily gauging the applicability of the social norms approach to SSHBs. Qualitative methods would then be employed to investigate the degree of moral judgements made about the behaviours in question, and the underlying beliefs which contribute to the formation of individuals' perceptions, in order to inform interpretation of, and further illuminate, the findings of the social norms surveys. Johnstone (2004) summarises a range of arguments for the use of mixed methods, including the usefulness of triangulation, complementarity and expansion of the data; neutralisation of the biases brought about through the use of individual methods; and increased credibility and rigour of the research process as a whole. It was believed that taken together, the findings of both the quantitative and the qualitative elements of the current research would provide a comprehensive picture of the relevance of social norms and normative perceptions within the context of SSHBs, and some indication of the underlying theoretical backdrop.

In support of the methodological decisions made, it can be argued that the current thesis loosely parallels some parts of the Medical Research Council's (2000) framework for complex interventions, as illustrated in Figure 4.1. As no previous research has been conducted in this area and no existing interventions are available for review, the processes cannot be *directly* compared, but it is believed that the current programme of research follows the framework reasonably closely given the existing research context, in that a comprehensive review of the literature was conducted to assess the evidence to date and gaps therein ("Development"); quantitative inquiry determined the parameters of the phenomenon of interest and the feasibility of applying the social norms approach to this behavioural domain ("Feasibility and Piloting"), and qualitative research elaborated on the quantitative findings and provided some insights regarding underlying processes ("Evaluation"). The final stage of course, would be the development of a social norms intervention based on the findings of the previous three stages ("Implementation"), but this is beyond the scope of the current PhD (but will be discussed further in Chapter 8).

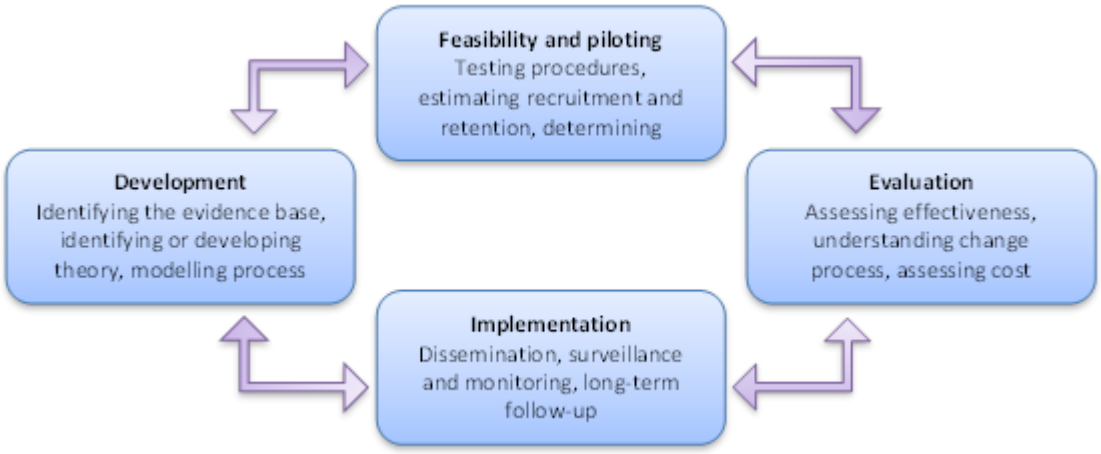

Figure 4.1: Key elements of the development and evaluation process for complex interventions (adapted from Medical Research Council, 2000).

Although methodological rigour, firmly grounded in the literature, was applied throughout the current programme of research, it should be noted that the author tends to take a more quantitative ontological stance. The reported research – including the qualitative study (Study 3, Chapter 7) – may therefore have been approached from a somewhat experimental standpoint, with findings considered in relatively quantifiable or empirical terms. This position may have influenced the design and conduct of the reported studies in that attempts were made throughout to quantify experience, identify relationships between variables, control extraneous variables and maximise generalisability; despite the reduced significance of such factors in qualitative inquiry. It is not believed however, that such a position will have proved in any way deleterious to the design, conduct, findings or reporting of the current research.

4.2 Quantitative Research

The first necessary stage in determining the applicability of the social norms approach to SSHBs was to ascertain the target population's self-reported rates of engagement in those behaviours and attitudes towards them, and to compare these to the perceived behaviour and attitudes of others. Quantitative methods were deemed appropriate for this stage of the research, as quantitative methodology has the advantage over qualitative in testing pre-existing hypotheses and providing large amounts of generalisable data in a timely manner, which can be used to predict behaviour and which is relatively independent of the researcher

(Johnson & Onwuegbuzie, 2004). Studies 1 and 2 (Chapters 5 and 6, respectively) therefore employ a quantitative, cross-sectional, social norms survey method.

4.2.1 Social norms surveys

The most widely-used method to date, of obtaining information regarding social norms and normative perceptions, has been large-scale, social norms surveys (e.g., Franca, Dautzenberg, Falissard & Reynaud, 2010; Larimer & Neighbours, 2003; Perkins, Meilman, Leichliter, Cashin & Presley, 2010), and it was deemed appropriate that the current research adhere to this method as far as possible, so that findings might be interpreted in light of, and with reference to, existing theory and research (in other behavioural domains). Using scales, or multiple choice options, social norms surveys typically question respondents on their rates of engagement in a given behaviour; their level of approval of, or attitude towards, that behaviour; their perceptions of given reference groups' engagement in that behaviour; and their perceptions of those reference groups' attitudes towards, or approval of, that behaviour. Assuming that respondents themselves constitute part of the reference group in question[10], the self-reported engagement in, and approval of, the behaviour, represents the *reported norm*, and reported perceptions of others' engagement in, and approval of, the behaviour, represents the *perceived norm*. Comparison of the two provides a measure of any *misperception*, or at least any discrepancy between individuals' own (reported) behaviour and attitudes and what they believe to be the norm.

It should be noted that difficulties can arise when questioning people about *what they think other people think*, as complicated questions can affect accuracy of, and confidence in, responses, in cases where the participant is not certain of the answer (Kebbell & Giles, 2000). Complicated wording may thus impair participants' understanding, and in turn impede the reliability of the data. Further, in their Social Norms Guidebook, McAlaney, Bewick and Bauerle (2010) advise against the use of long-winded questions which participants are unable to answer quickly, on the basis that "If the complexity of the question requires individuals to consider their response for an extended time, they may provide a reasoned answer which does not reflect the actual, largely unconscious, belief on which their own behaviour is based" (p7). In addition, given that every reported behaviour/attitude

[10] Typically, the *others* about whose behaviour and attitudes respondents are questioned, are clearly described as a group to which the respondents themselves belong; "students your age and gender" or "students at your university" for example.

question has a corresponding perceived normative behaviour/attitude question, wording must be kept simple in order to facilitate ease of matching. For the current thesis, a pilot study was conducted with members of the study population (see Chapter 5), as recommended by McAlaney, Bewick and Bauerle (2010). It is believed that this adequately addressed any issues with item wording, such that the final survey was as user-friendly and easy to understand as possible, given the nature of the questions.

4.2.2 Adaptations to existing social norms measures

As social norms surveys have never been conducted in the field of SSHBs, design of the survey was informed by social norms surveys used in other areas (e.g., alcohol consumption and substance use), but, due to the unique and complex nature of the behaviours in question, some changes were necessary. Firstly, as touched upon above, surveys used to measure alcohol norms (for example), typically invite responses consisting of numbers of drinks consumed per day or on a typical night out, or number of days per week/month one consumes alcohol (e.g., McAlaney & McMahon, 2007), whereas requesting information on estimated normative numbers of episodes of self-harm or suicidal behaviour per day would be neither appropriate, nor interesting (as most people do not engage in these behaviours at all). The extent to which participants believe that others engage, or have engaged, in these behaviours *at all* is of more consequence. In the absence of any similar research, response options for the current survey therefore had to be designed from scratch, to ensure they were both sensible in terms of the behaviours of interest, and useful for analysis purposes.

Secondly, social norms research into other health-damaging behaviours has tended to focus on relatively common behaviours (e.g., alcohol consumption or smoking), such that even if an individual has no experience of engaging in that particular behaviour themselves, they are likely to have witnessed others doing so, on a fairly regular basis. Not only are SSHBs relatively rare – rendering it less likely that participants themselves will ever have engaged in such behaviours – but they are also relatively private behaviours (Conterio & Lader, 1998; Favazza, 1992), to which it is therefore less likely that participants will have ever borne witness (apart from the case of dying by suicide perhaps). Some social norms research exists on similarly private/hidden behaviours such as energy conservation (Gockeritz, Schultz, Rendon, Cialdini, Goldstein & Griskevicius, 2010) and hotel linen reuse (Goldstein, Griskevicius & Cialdini, 2007), but again, responses regarding perceptions of relatively simple pro-environmental behaviours are likely to differ somewhat from responses regarding SSHBs, in that the latter are altogether far more complex and emotive behaviours.

Thirdly, typical social norms surveys tend to consist of pairs of items that can be compared; one item about the respondent's behaviour or attitude, and a matching item about their perception of that behaviour or attitude in others. Because it would be impossible to measure actual norms for one of the behaviours of interest – namely, dying by suicide – through self-report, it was impossible to explore discrepancies between perceived and reported norms around this behaviour. Perceived norms might of course be compared with official statistics to determine a crude measure of potential misperception (particularly for the "people in general" reference group – see Chapters 5 and 6), but social norms research is concerned with specific norms for targeted reference groups, and it would be difficult to obtain official statistics for each of the reference groups of interest for the current research.

Finally, the reference groups about whose behaviour and attitudes participants were questioned were expanded upon from those used in previous social norms research. This was in order to include those groups with whose behaviour the literature review conducted as the first part of the current thesis (see Chapter 2) indicated that individuals' behaviour shares associations. This was deemed particularly important given the gap in the literature concerning *perceptions* specifically; the majority of the research reviewed in Chapter 2 assumed that reports of others' SSHB represented accurate knowledge. Although the inclusion of such groups is not typical of social norms surveys, and thereby goes some way in extending previous social norms research, it presents difficulties around comparison of perceptions with reported norms. Whilst one can do so for reference groups of which participants themselves are part, it is impossible to measure the reported norms for groups such as "close friends" or "parents" without questioning those groups directly, so it was impossible to determine whether or not participants' perceptions of these groups' behaviour were in fact accurate. Nevertheless, perceptions of those groups' behaviour and attitudes were measured so that they could be compared with individuals' own in order to explore any notable discrepancies which might be of interest, and so that their predictive power over individuals' own behaviour and attitudes could be examined.

4.2.3 Limitations of quantitative methods

Whilst quantitative research is extremely useful in eliciting statistically verifiable, generalisable, relatively objective data, it is limited in its capacity to provide any interpretation of that data. Quantitative research can provide excellent answers to the "what?" questions; providing masses of information about the existence of phenomena and

characteristics thereof. But an alternative method is required to answer the "why?" or the "how?" questions, such as what it is that underlies those phenomena, and why such characteristics occur. The information obtained through quantitative inquiry is also constrained by the properties of the measure used to gather that information, in that participants are usually only permitted to provide that information about which they are explicitly asked, and as such, abstract, contextual or nuanced information which is potentially more relevant to that individual's experience, may be omitted. Finally, quantitative methods can be useful in theory confirmation, but can be somewhat lacking in their capacity for theory generation, which given the novel nature of the current research (and associated lack of behaviour-specific theory), would be inadequate if used in isolation. The current thesis aimed to overcome these limitations to some extent, by combining quantitative methods with qualitative. Through the triangulation of findings which is possible using mixed-methods, it was hoped that the strengths of each methodology could be combined to produce a robust and comprehensive piece of novel research.

4.3 Qualitative Research

Qualitative research is a useful tool for enriching and elaborating upon the knowledge obtained through quantitative inquiry, and gaining an understanding of the context under which phenomena occur. Unlike quantitative methods, qualitative methods are particularly useful in the exploration of complex phenomena, in inductive theory generation, and in addressing the meaning that participants' themselves apply to concepts (Johnson & Onwuegbuzie, 2004). According to Silverman (2011), "dependence on purely quantitative methods may neglect the social and cultural construction of the 'variables' which quantitative research seeks to correlate." (p13). If one relies solely on the results of a quantitative survey for example, one may omit important contextual information, or neglect to consider vital detail surrounding responses, and thus reach erroneous conclusions. One also limits oneself to accessing only that data which is obtainable and analysable using restrictive and inflexible methods. Furthermore, qualitative inquiry is particularly useful when research is exploratory, as opposed to confirmatory (Guest, MacQueen & Namey, 2012).

In the sense that qualitative methods were used to help make sense of the findings of quantitative methods, and qualitative measure design was informed by the results of quantitative inquiry, the current thesis follows a model of profoundisation (Langdridge &

Hagger-Johnson, 2009), in which qualitative methods follow quantitative, in an effort to "enrich or tease out important aspects of the data" (p480). Figure 4.2 illustrates such a model. The above authors argue that qualitative methods can help in the interpretation of the findings of quantitative research, and enable researchers to account for unusual, contradictory, or otherwise unexplainable data, and to infer causal mechanisms and underlying processes.

Figure 4.2: Model of profoundisation (adapted from Langdridge & Hagger-Johnson, 2009).

Alternatively, had the qualitative and quantitative components been designed in conjunction and the findings each used to aid interpretation of the other, the current thesis might have been described as following a model of triangulation (Langdridge & Hagger-Johnson, 2009), in which the findings of both quantitative and qualitative studies are combined to produce one set of conclusions. Figure 4.3 illustrates the model of triangulation.

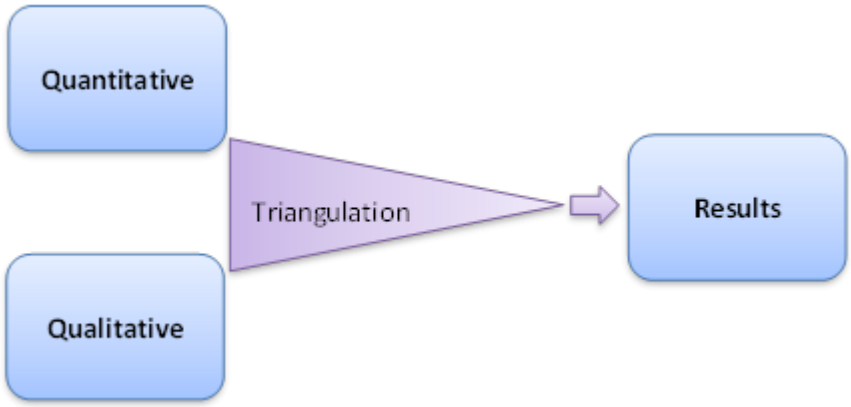

Figure 4.3: Model of triangulation (adapted from Langdrigde & Hagger-Johnson, 2009).

Although the current research more closely follows a model of profoundisation, the results for the quantitative studies (Studies 1 and 2) and the qualitative study (Study 3) have nevertheless been considered in conjunction with each other, and the findings of each used to further interpret the other (see Chapter 8).

The inclusion of a qualitative element in the form of semi-structured interviews was decided upon, with several aims. Firstly, it was hoped that the collection of qualitative data may serve to confirm the findings of the quantitative studies. A quantitative study is necessarily, only as robust as the instrument used to measure the variables. In this case, the surveys only enabled respondents to respond through the set response options provided, which, particularly in light of the fact that social norms research has never been conducted in this area and surveys were therefore designed from scratch, may have resulted in the employment of a "best fit" method by participants, where an option corresponding to their actual response was not available. Through the addition of a qualitative measure, it was hoped that participants would have the opportunity to freely state their responses without the constraints associated with survey methodology, and that the interpretation of results from the quantitative survey data could be supported and built upon.

Secondly, as is often the case with qualitative research, it was hoped that the data would provide enrichment of the quantitative data already collected, helping to explain the phenomena identified in the surveys. The ambiguity surrounding the perceived negativity or acceptability of SSHBs renders the findings of social norms surveys potentially difficult to interpret. The surveys provided information on the behaviour in which participants engage and the perceptions and attitudes they hold, but they revealed nothing about why participants hold these attitudes or what feeds these perceptions. It was hoped that such information would be acquired through semi-structured discussion; that beliefs behind reported perceptions could be explored with regard to moral judgements placed upon the behaviours. Additionally, the surveys provided some unusual findings in comparison to the findings of social norms research into other health-damaging behaviours, and it was hoped that a qualitative element to the research would enable further exploration of these findings.

Finally, there is a notable dearth of qualitative research within the social norms field in general, so in addition to enriching and expanding upon the findings of the quantitative surveys, it was believed that the addition of a qualitative element to the current research would provide an interesting contribution to the social norms field generally.

4.3.1 Interviews

On account of the concepts of interest comprising of individuals' attitudes and beliefs, it was deemed appropriate simply to *ask* people about them, in a more flexible way than is permitted using survey methodology. Byrne (2004) claims that "qualitative interviewing is

particularly useful as a research method for accessing individuals' attitudes and values… Open-ended and flexible questions are likely to get a more considered response than closed questions and therefore provide better access to interviewees' views, interpretation of events, understandings, experiences and opinions" (p182). Through the use of semi-structured interviews, it was hoped that undergraduate students' beliefs and attitudes might be explored in more detail, aided by the employment of active listening and the flexibility of using prompts to encourage expansion on relevant points.

4.3.2 Saturation

With non-probabilistic sampling such as that typically used in qualitative research, it can be difficult to know what sample size is appropriate (Guest, Bunce & Johnson, 2006). The standard process followed by most qualitative researchers is thus to continue to collect data until *saturation* has been achieved, and this can refer to data saturation and/or theoretical saturation. *Data saturation* describes the point at which the inclusion of new participants fails to generate any new data, and additional data merely repeats what has already been obtained. *Theoretical saturation* describes the point at which no new theory is generated from the data, and additional data contributes nothing new to the analyses (Bowen, 2008). It was decided that participant recruitment for Study 3 would conclude when data saturation had been achieved. There are no set guidelines regarding when saturation will occur, and although some researchers who have attempted to quantify the number of interviews required for saturation have suggested between six and twelve participants may suffice (see Guest et al., 2006), the current research indicated that as is arguably evident from the disagreement across the literature, what suffices for one study may not for another, and it is likely to depend on specific properties of an individual research study (e.g., topic, sample, questions asked). Specifically, the necessity for a larger sample in the current research was perhaps inevitable, given that the number of participants necessary to achieve saturation is likely to demonstrate an inverse relationship with the prevalence of the phenomenon under investigation (Guest et al., 2006).

4.3.3 Limitations of qualitative methods

One of main limitations of qualitative inquiry is its inherent lack of generalisability across samples and across settings. Due to the time-intensive nature of qualitative data collection and analysis, qualitative researchers necessarily tend only to recruit as many participants as will enable them to adequately answer their research questions, and the resultant sample

sizes are thus relatively small when compared with those typically used in quantitative research. The invariable use of non-random samples[11] further restricts generalisability, and qualitative research is therefore only able to provide information about one particular group of participants, in one particular setting, and is unable to provide quantifiable predictions (Johnson & Onwuegbuzie, 2004). Although this limitation is all but unavoidable, qualitative research can still provide valuable contributions to knowledge, as long as its relative specificity is borne in mind.

A further criticism often directed towards qualitative research is that it is inferior to quantitative methods in terms of reliability and validity. Due to the heavily researcher-dependent and arguably relatively *subjective* nature of the analytical process, there is the potential for qualitative researchers to impose their own views on the data and interpret it accordingly. This might easily result in either the reporting of findings which do not in fact exist in participants' experience (Type I error), or the omission of information important to the participant but that the researcher believed was not (Type II error). Moisander & Valtonen (2006) claim however, that qualitative research *can* be reliable (i.e. that anyone would find the same results, using the same methods), provided two criteria are met: i) that the research process (data collection and analysis) are made transparent, and ii) that the theoretical stance (which guides and informs interpretation) are made transparent. In thematic analysis, the conscientious upkeep of reflective journals assists in this regard. In addition, validity can be ensured through the adoption of methods such as member-checking, in which the original participants check the final report for accuracy of its representation of their experience; and analytic induction, in which theory is developed based on a few cases, and is repeatedly checked against other cases and revised where necessary, until no further revision is required.

4.4 Working with University Students

Undergraduate samples were used for two of the studies (Studies 1 and 3) that make up the current thesis. The use of student samples is a reasonably common practice within social science research, and the relative merits and disadvantages have been debated widely (see Peterson, 2001). The convenience and availability of such samples, and their willingness to

[11] Qualitative researchers tend to employ purposive or theoretical sampling procedures to ensure the highest quality data possible is obtained.

participate in research in return for research experience or academic credits, are undeniable, but the selection of this sample for the current thesis was deliberate, and decided upon for a number of both practical and theoretical reasons.

4.4.1 Rationale

Firstly, the majority of social norms research to date has been conducted within university student samples, and as the social norms of SSHBs have yet to be investigated, it was deemed sensible to conduct Study 1 within a similar population to those which have been studied with regard to *other* behaviours. That way, in the event that the null hypothesis was supported and the research yielded findings contrary to those of previous social norms studies, it would be more easily attributable to features of the specific behaviours in question, as opposed to differences between study populations. The selection of a sample from the same population was logical for Study 3, given the related aims of the studies[12].

The second reason for the selection of a student sample for both Studies 1 and 3 is that young people constitute a particularly high-risk population for self-harming behaviours (e.g., O'Loughlin & Sherwood, 2005), and self-harm constitutes the strongest risk factor for future suicide (Owens, Horrocks & House, 2002). It was deemed relevant to the ultimate aim of this research as a whole – namely, the potential future development of interventions similar to those used effectively in reducing other health-damaging behaviours, to help reduce SSHBs – to determine whether the social norms approach might be applicable to these behaviours, in a group for whom risk is particularly high. In addition, due to the likely increased time away from home, spent with a wider range of new people, the development of interventions which exploit students' heightened exposure to social stimuli may prove an efficient and relevant method of intervention, in a particularly vulnerable group. Universities also seem to offer a unique setting in which to deliver targeted health interventions, as the target population is easily accessible (e.g., Borsari & Carey, 2001).

[12] The sample for Study 3 could equally have come from the same population as that of Study 2, given than Study 3 was designed to support and inform interpretation of the findings of Studies 1 and 2. Undergraduates were decided upon for practical reasons relating to challenges around obtaining ethical approval and permission for questioning adolescents about such a sensitive subject, within a limited time period.

On a related note, the relative rarity with which SSHBs occur in the general population compared to students (for example) prompted the third reason for choosing a student sample. Social norms research to date has focused on reasonably widespread and easily observable behaviours, with which the majority of people are likely to be familiar (e.g., alcohol consumption, smoking). In comparison, the behaviours of interest to the current thesis are relatively rare, and where they exist, they tend to be concealed from others (Conterio & Lader, 1998) and those who engage in them may be unlikely to tell anyone (Evans, Hawton & Rodham, 2005). Because of these features, a larger sample than might be necessary to obtain information about more commonly observed behaviours, would be necessary to ensure sufficient numbers of individuals with relevant experience were captured. As such, it made practical sense to study these concepts in a population within which SSHBs are known to be more common, in order that the number of individuals to whom these issues might be relevant, was maximised (either through their own experiences or those observed/perceived in others).

4.5 Working with School Pupils

In addition to the use of undergraduate students for two of the studies in the current thesis (Studies 1 and 3), a high-school sample was used for Study 2. Social norms research is only recently beginning to explore adolescent populations, and some interesting similarities and differences in results compared to those of their undergraduate counterparts, make adolescent samples interesting in their own right, and particularly so for the current research, given the prevalence of these behaviours within this population.

4.5.1 Rationale

There were four main reasons for the inclusion of a high-school pupil sample in the current research programme, two of which are identical to reasons for investigating an undergraduate student sample, and two of which are unique to adolescents.

As was part of the rationale for including undergraduate students, young people are known to be particularly vulnerable to self-harming behaviours, and ultimately, subsequent suicide (O'Loughlin & Sherwood, 2005; Owens, Horrocks & House, 2002). As such, and not unlike their undergraduate counterparts, the case for the inclusion of high-school pupils in the current research was twofold. Firstly, their relatively increased risk of SSHBs (compared

with other groups) renders them particularly significant for the current research as the behaviours in question are likely to manifest in a higher proportion of these individuals than in other populations, and they are thus one of the groups towards whom intervention and prevention efforts might be most prudently directed. Secondly, the increased frequency with which SSHBs are observed within this population maximises the likelihood that recruited participants would have relevant experience of such behaviours upon which to draw (either through their own experiences or through people they know). As discussed with regard to the benefits of recruiting undergraduate students, this means that a smaller sample than it would be necessary to recruit from the general population, is likely to be required in order to capture a sufficient number of individuals with relevant experience of the issues at hand.

Whilst similar to undergraduate students in the above respects, the fact that high-school pupils are *not* university students was another reason for their inclusion in the current research. Although the majority of social norms research to date has been conducted within university student populations, research into the use of students in social science research has indicated that student data tends to be more homogeneous than that collected from other samples, and effect sizes also tend to differ from those found elsewhere (Peterson, 2001). Whilst undergraduate students might therefore constitute a group with specific characteristics, the high-school pupil population is of course comprised of *all adolescents*, at least as far as compulsory school age. The inclusion of a similarly high-risk, highly social, non-student group was considered useful for confirmatory purposes, as well as for comparison.

Finally, another feature which renders adolescents uniquely interesting for the purposes of the current research is their heightened susceptibility to influence from social stimuli (as discussed in Chapter 2) and social norms, specifically (as discussed in Chapter 3). Whilst undergraduates may arguably experience exposure to more frequent and intensive social behaviour (e.g., through cohabiting in student halls, socialising in the student union, or participating in clubs and societies), adolescents are known to display particular susceptibility to influence from their social environment (Brechwald & Prinstein, 2011) and the relatively small social norms literature that exists within this population (compared to that focusing on university students), indicates that they may be especially vulnerable to the influence of normative perceptions (see Chapter 3). The literature review reported in Chapter 2 indicated that children and adolescents' SSHBs are associated with those behaviours in people they know, but no distinction was made between perceptions and concrete

knowledge. An empirical test of whether perceived social norms of those behaviours are relevant to this group was therefore deemed appropriate.

4.6 Summary

Due to the existing lack of research into the social norms of SSHBs, a mixed-methods approach was chosen in order to obtain a thorough and detailed understanding of the perceptions of normative SSHBs, and how they relate to one's own. Social norms surveys modelled on those used in other health-damaging behavioural domains were used to assess normative behaviours and perceptions thereof, and semi-structured interviews were used to help explain the quantitative data, and provide detail on the underlying beliefs and experiences. As high-risk groups for these behaviours, undergraduate students and high-school pupils were sampled, in order that relevant information could be gathered that might ultimately help inform a targeted intervention strategy, but also to maximise the proportion of participants within the sample who are likely to have experience of these behaviours.

Chapter 5

Study 1: Undergraduate Social Norms Survey

5.1 Abstract

Background

Despite indications that the SSHB of young people may be related to that of people they know (see Chapter 2) and that perceptions of normative behaviour are related to one's own behaviour in a range of domains (see Chapter 3), no research to date has been conducted to explore the social norms of SSHBs. The current study aimed to fill this gap in the literature.

Method

Following a pilot phase in which several changes were made to the original measure, 312 undergraduate students (mean age = 21.73 years) from two universities completed an anonymous, self-report, online survey exploring their engagement in and approval of SSHBs, and their perceptions of the behaviour and attitudes of other groups.

Results

Participants tended to believe that in comparison to reported norms, proximal groups were less likely, and distal groups were more likely, to engage in SSHBs. Proximal groups were also perceived as less likely to approve of self-harm, and both distal and proximal groups were perceived as less likely to approve of suicide attempts. Both descriptive and injunctive norms were predictive of reported norms, with a tendency for reported norms to show positive associations with proximal group norms and negative associations with distal group norms.

Conclusion

The social norms of SSHB display slightly different patterns to those observed in other health-damaging behaviours. The behaviour and attitudes of proximal groups and distal groups are perceived differently, and show different associations with individuals' own reported behaviour and attitudes. Findings indicate that the social norms approach may be applicable to SSHBs, but in different ways to other behaviours previously studied.

5.2 Introduction

Social norms research in general has indicated that people consistently perceive others to behave in more negative or damaging ways, and hold more positive attitudes towards negative or damaging behaviours, than they report doing themselves, across a vast range of different domains (see Chapter 3 for further details). Additionally, people's perceptions of normative behaviour and attitudes tend to show associations with their own behaviour, such that discrepancies between perceived and reported norms may contribute to individuals' increased engagement in damaging behaviours, despite individuals not necessarily being conscious of any normative influence (e.g., Nolan, Schultz, Cialdini, Goldstein & Griskevicius, 2008). The reduction of such discrepancies through the provision of normative feedback has proven effective in reducing a number of damaging behaviours (e.g., alcohol consumption; Bewick, West, Gill, O'May, Mulhern, Barkham & Hill, 2010; marijuana use; Elliot & Carey, 2012; (lack of) sun-screen use; Mahler, Kulik, Butler, Gerrar & Gibbons, 2008). These phenomena have never been investigated with regard to SSHBs, despite the indications in the literature that suicide and self-harm may be highly susceptible to social influence (see Chapters 1 and 2). The current study therefore aimed to address these gaps in the literature. As a group which is often studied within social norms research (see Chapter 3), and a group known to be particularly susceptible to SSHBs (see Chapters 1, 2 and 4), undergraduate students were chosen as a population of particular interest.

5.3 Aims

The aims of the study were:

- To explore whether differences exist between undergraduates' perceptions of normative SSHB and reported behaviour (descriptive norms).
- To further explore whether differences exist between undergraduates' perceptions of normative attitudes towards SSHB, and reported attitudes (injunctive norms).
- To determine whether any associations exist between any of the variables measured (e.g., age, gender, perceived descriptive or injunctive norms), and undergraduates' reported SSHB or attitudes towards SSHB.

5.4 Hypotheses

It was hypothesised that:

i) There would be a discrepancy between undergraduates' reported SSHB and their perceptions of normative behaviour, with others perceived as more likely to engage in SSHB than they report doing themselves.

ii) There would be a discrepancy between undergraduates' reported attitudes towards SSHB and their perceptions of normative attitudes, with others perceived as more likely to approve of SSHB than they report doing themselves.

iii) Undergraduates with higher perceived norms for SSHB would be more likely to engage in or approve of those behaviours themselves, and SSHB would be associated with age and gender.

5.5 Method

5.5.1 Pilot survey

5.5.1.1 Rationale

The current study comprised a small pilot study before full data collection commenced. As discussed in more detail in Chapter 4, social norms surveys are somewhat challenging to design due to the unusual wording which is necessary to access the specific perceptions of interest, and for SSHBs in particular, using the appropriate wording presented specific challenges which had not previously been covered in the literature. Thus, to ensure that the novel, purpose-designed survey was feasible for use with a large sample, a pilot study was conducted, in which participants were asked to respond to items as best they could, and provide feedback on the ease of understanding and completion of the survey.

5.5.1.2 Pilot survey method

Informed by previous social norms surveys but with adaptations appropriate to the behaviours in question, a social norms survey was designed to explore reported and perceived norms around SSHB (see Chapter 4 for further details on its development). 11 students from the University of Strathclyde were recruited through convenience sampling to complete the pilot survey. As no analyses of the data collected for the pilot were planned, no

demographics were collected (apart from student status), although full ethical approval and informed consent was obtained from the University of Strathclyde Ethics Committee (UEC). Due to difficulties with amendments to the online survey once it has been accessed by participants, paper versions of the survey were printed out for completion by hand for the pilot phase (so that the online version could be maintained for the full-scale phase). Participants were invited to take the survey away and complete it in their own time, so conditions were as similar as possible to the planned full-scale online survey. The pilot survey can be seen in Appendix D.

5.5.1.3 Outcomes of pilot survey

Some critical feedback was received, although overall the survey was well accepted and considered user-friendly. Unfortunately, social norms surveys generally pose certain challenges, as there are particular ways in which social norms researchers must pose questions in order to obtain the information they require. Much of the feedback was around these types of wording difficulties (e.g., participants noting that being asked to think about "what you think about what someone else thinks" is confusing), and this was considered an unavoidable difficulty intrinsic to social norms research.

However, following the pilot, several changes were made to the survey, both as a result of comments explicitly provided by pilot participants, and following reflection on the process by the researcher. Both types of changes, along with the feedback or reflections which prompted them, are described below. Both the pilot survey and the final amended survey can be found in Appendices D and E, respectively. Question numbers varied between the pilot and full-scale surveys as a result of items having been added or removed, so for the purpose of clarity, pilot question numbers are denoted as PQ#, while full-scale survey questions are denoted as FQ#.

Participant-driven changes

- One of the questions with which there were difficulties in design from the outset, was also picked up on by pilot participants. PQ21 ("*Do you think a member of the following groups of people ever actually ends their life?"*) was problematic in its wording due to the inability of an individual to end their life more than once, hence the use of the term "*a member of (group X)*" to denote generality, as opposed to specific individuals. However, according to pilot participants, this was still unclear, so the wording was changed to "*Do you think members of the following groups of people ever actually end their lives?*", in an attempt to emphasise that it is members

of those reference groups generally, in which the question is interested. Although it is probable that this question was still imperfect following this amendment, it was deemed the best version available that would potentially capture the information required, without splitting the question into a number of smaller questions. See FQ22. As it turned out, responses to this question were not included in analyses anyway, as no corresponding self-report data was available for comparison, so it was considered that this data did not contribute significantly to the findings.

- Some participants expressed the need for a "don't know" option for some of the questions (because for example, they were unaware of the behaviour of their wider/extended family). As people's perceptions were of interest, specifically, and *not* their concrete knowledge, it was decided that this would be inappropriate. Further, other social norms surveys have used similar reference groups, so it was preferable to keep them as they were, even if participants found some items tricky to answer. The introductory paragraph to the survey however, was amended to emphasise the focus of the survey on perceptions rather than knowledge, in an attempt to encourage participants to provide their best answers, in the absence of certainty. The existing phrase "*What you think/feel*" was underlined, and the following sentence was added: "*If there does not seem to be an answer that fits your point of view exactly, or you're not sure of the answer, please just choose the closest to what you think*". A final reminder of this sentiment was also added at the end of the introduction, stating "***Remember**: We are interested in your thoughts and feelings; if you're not sure about anything, just tell us what you think*". It was considered that this was adequate in assuring participants that their definite knowledge was not sought.

- There seemed to be some difficulty with PQ25-31 ("*What percentage of the following people do you think never …?*"), in that some groups may contain only one or two individuals (e.g., parents, siblings), so responses could necessarily only be 0, 50% or 100%, whereas other groups consist of much greater numbers (e.g., students in general), rendering comparison of responses difficult. It was originally anticipated that the number sliders which would be used to respond to these items on the online version (as opposed to just written numbers, as required for the paper print-out), would assist participants in selecting their responses, and additional questions of the same format were added, asking the alternative, "*What percentage of the following people do you think regularly …?*" for each behaviour. Upon further

consideration however, this whole section was removed, as it was felt that it did not contribute significantly to the data, and was in fact potentially too confusing for participants.

- It was suggested that the original response options for PQ32-38 were inadequate ("*It is completely wrong for an individual to…"/ "There are certain circumstances under which it is ok for an individual to…" / "It is completely ok for an individual to… if that is what they choose to do"*), with participants forced to state that behaviours were either "ok" or "wrong". Other social norms surveys have provided a wider range of response options (including options such as the statement that a behaviour is ok as long as it does not interfere with other commitments, for example), but given the nature of some of the behaviours under exploration in the current study, similar responses were considered inappropriate (e.g., it would not make sense to state that attempting suicide is ok as long as it does not interfere with other commitments). As such, the original number of response options was maintained, but the middle option was changed to "*There are certain circumstances under which I can understand why an individual might…*", to allow participants to express a less than complete disapproval of a behaviour, without having to state that it is "ok". The wording of those questions which related to these (PQ39-45), was also amended. See FQ26-39.

- Finally, a comment was made that there was some ambiguity in how to respond to PQ46-81. One particular participant was unsure whether to name the people they knew engaged in certain behaviours in the "suspect" box as well as the "know" box, or only to put them in the "know" box. As the researcher had already been considering whether these questions were clear enough, changes were made to ensure that they were, with "what you know" and "what you suspect (but don't know for certain)" put into the same question. It was considered that this made the questions slightly less ambiguous and also cut down the number of questions (thereby reducing demands on participants). See FQ40-57.

Reflection-driven changes

- A "partner" reference group was added to all questions about others, as it was considered possible that a romantic partner might influence an individual's behaviour or attitudes.

- Further to the abovementioned changes to PQ32-38, the words " …if that is what they choose to do" were removed from the third response option, as it was considered that these words rendered that option slightly different in tone to the other two, and also added an extra level of assessment which might influence responses (i.e. the notion of choice). Again, these changes were also made to any related questions (PQ39-45). See FQ26-39.

- Finally, as mentioned previously, the final section, PQ46-81, was deemed unnecessarily confusing and was therefore amended in order to make it quicker and easier to respond to. See FQ40-57.

5.5.2 Participants

Recruitment employed a strategy of convenience, in that any/all potential participants fitting the inclusion criterion (i.e. current undergraduate student) were invited to participate. Having first obtained permission from university ethics committees (and in the case of the University of Glasgow, heads of specific schools), all undergraduate students from the University of Strathclyde (entire university) and the University of Glasgow (Schools of Chemistry, Education, Mathematics and Statistics, Physics and Astronomy, and Veterinary Medicine only, due to restricted permission) over the age of 18 were invited to participate. Participants were recruited through advertisements displayed around university campuses and posted on social media sites (including clubs and societies' web pages), fliers distributed in communal areas, and standard recruitment emails. Students interested in participating were encouraged to either email the researcher for more information or to access the online survey link directly (where they would also find full information about the study), at a time and place convenient to them. As a thank-you for their time and effort in participating, students registered on a particular methodology module in the School of Psychological Sciences and Health at the University of Strathclyde were offered research credits for their participation. Everybody else was offered entry into a prize-draw to win a £50 shopping voucher. Recruitment concluded when a pre-specified study end-date was reached.

5.5.3 Design

A cross-sectional, anonymous, online self-report survey design was used.

5.5.4 Materials

The full-scale online survey (a download of which can be seen in Appendix E) – as well as the information sheet and consent form (see Appendices A and B) – was accessed through Qualtrics.com (an online survey software provider), via a link which was available on advertising materials, or emailed to individuals upon their expression of interest in participating. The survey questioned participants on their own engagement in thoughts of self-harm, self-harm, thoughts of suicide, and suicide attempts, as well as their perceptions of the prevalence of those same thoughts and behaviours amongst their close friends, their siblings, their parents, their partner, their children, their extended family, students the same sex as them, students at their university, students in general, people their age in general and people in general[13]. They were also asked about their attitudes towards self-harm and suicide attempts, and their perceptions of the attitudes of each of the above groups towards those behaviours. Finally, the survey was designed such that if participants responded that they had ever engaged in any of the above behaviours, an additional question would be displayed regarding whether or not when they first did so, they knew for certain or suspected that someone they knew had also engaged in similar behaviours, and whether or not they believed that this had influenced their own engagement in that behaviour.[14] Participants were invited to respond to items throughout the survey predominantly using a "check-box" format, with a small number of free-text responses (reporting their relationship to anyone they knew or suspected to have engaged in SSHB, if and when they first did so). A debrief was displayed upon completion of the survey (see Appendix C).

5.5.5 Procedure

[13] A wide range of reference groups (more than might normally be included in a typical social norms survey) were used because a lack of research in the current area means that it is unknown which groups might be most important for the current behaviours of interest, and the importance of considering the salience of different reference groups has previously been highlighted (Berkowiz, 2004; McAlaney, Bewick & Hughes, 2010).

[14] In addition to the items of interest for the current study, surveys questioned participants about a range of other damaging health-related behaviours, such that questions regarding SSHBs were embedded within the context of a survey about risky behaviours in general. This was partly for the purpose of gaining ethical approval (which would be unlikely to be awarded for a survey entirely focused on such sensitive issues as suicide and self-harm), and partly so that the findings relating to the social norms of SSHBs could be explored within the context of the social norms of other, previously studied behaviours. The additional data will be analysed and reported elsewhere.

Updated (post-pilot) ethical approval was obtained from UEC. Participants completed the online survey through an advertised/emailed link, at a time and location convenient to them. Following electronic provision of study information, consent was obtained electronically, by checking a box. Participants were then asked to provide some demographic information, and to generate a code based upon information relevant to them, so that should they wish to have their data removed at any point, they were able to do so without having their anonymity compromised. An "opt-out" button was also provided on each page, which participants were directed to use should they wish to terminate their participation at any point. The whole process took approximately 30 minutes to complete.

5.5.6 Analysis

Due to their similar data sets and hypotheses, quantitative analyses for Studies 1 and 2 were identical, and comprised of two main sections: identification and measurement of differences between self-reported behaviour and attitudes and perceptions of the behaviour and attitudes of others, and identification of predictors of behaviour and attitudes. Friedman's ANOVA (with post-hoc Wilcoxen signed-ranks tests) was employed for the former, and binary logistic regression was employed for the latter. All data was analysed using IBM SPSS 19.

5.5.6.1 Friedman's ANOVA

Friedman's ANOVA is a non-parametric test used to test for differences between conditions, when repeated-measures have been used in two or more conditions. Individuals' own reported behaviour and attitudes constituted the dependent variables, with their perceptions of others' behaviour and attitudes representing the independent variables. Each was measured on a 3-point ordinal scale: from never having engaged in the relevant behaviour (0), through having engaged in the behaviour at some point in the past (1), to currently engaging in the behaviour (2) for behavioural variables, and from believing the behaviour to be completely wrong (0), through believing it to be ok under certain circumstances (1), to believing it to be completely ok (2) for attitudinal variables.

Friedman's ANOVA ranks the scores (from lowest = 1 to highest = number of conditions) in the different conditions for each participant, and then uses the sum of the ranks for each condition (R), along with the number of conditions (k) and the sample size (N) to calculate the test statistic (F_r), using the following equation:

$$F_r = \left[\frac{12}{Nk(k+1)} \sum_{i=1}^{k} R_i^2 \right] - 3N(k+1)$$

A calculated F_r value smaller than the relevant critical value (found in statistical tables, using k-1 degrees of freedom), indicates that the groups are significantly different (Field, 2005).

It is neither possible, nor would it be helpful, to calculate effect sizes for Friedman's ANOVA, but effect sizes can be calculated for the individual comparisons at the post-hoc stage (Field, 2005).

5.5.6.2 Wilcoxen signed-ranks tests

Friedman's ANOVA can only identify whether or not differences exist between conditions; it does not provide any information about where differences lie or in which direction. Post-hoc tests are necessary to reveal this information, and the Wilcoxen signed-ranks test was chosen, in this instance. Again, Wilcoxen signed-ranks test uses ranks, but this time it is the differences between conditions that are ranked, and the sign (the direction of the difference) is applied to those ranks. The sums of positive (T_+) and negative ranks (T_-) are taken separately. The smaller of these two figures becomes the test statistic (T). Significance is determined by calculating a z-score, using the mean ($\bar{T}$), the standard error (SE_T), and the number of non-zero differences (n) for each condition:

$$z = \frac{X - \bar{X}}{s} = \frac{T - \bar{T}}{SE_T}$$

Where:

$$\bar{T} = \frac{n(n+1)}{4}$$

$$SE_T = \sqrt{\frac{n(n+1)(2n+1)}{24}}$$

Values larger than 1.96 (regardless of sign) indicate a significant difference for that comparison, at the p = .05 level (Field, 2005).

For Studies 1 and 2, perceptions reported for each of the reference groups were compared with the participant's own behaviour or attitude. As several comparisons were therefore made at this stage, it was necessary to correct for the increased risk of making a Type I error (falsely rejecting the null hypothesis). Bonferroni's correction simply divides the alpha level by the number of comparisons, thereby reducing the value which needs to be reached for that statistic to be significant (Field, 2005).

5.5.6.3 Binary logistic regression

Binary logistic regression is used to predict a binary outcome given certain other predictor variables (which may be either categorical or continuous). Unlike linear or multiple regressions, which provide information about how much of a variable is accounted for by another, binary logistic regression involves predicting the probability that one of two outcomes will occur, given known values of predictor variables. It was therefore used to determine the odds ratios and 95% confidence intervals for factors associated with reported norms. Given the relative rarity with which certain responses to most of the items in the social norms surveys used in Studies 1 and 2 occurred (e.g., "I attempt suicide regularly/often", "I think attempting suicide is completely OK"), it was deemed appropriate to re-code responses into a binary variable denoting either never having engaged in that behaviour (0) or having engaged in that behaviour at some point (1) (descriptive norm variables); and believing the behaviour is completely wrong (0), or believing the behaviour is ok, at least in some circumstances (1) (injunctive norm variables). Perceptions of other groups' behaviour or attitudes were then tested as predictors for these outcomes, along with age and sex. Of course regression analyses are based on correlational statistics, and as such, direction of causation cannot be confirmed.

5.6 Results

5.6.1 Participant demographics

312 undergraduate students were recruited in total, but after removal of those respondents who "opted out", and those with more than 50% missing responses, 224 participants

remained[15]. Despite efforts to recruit from the other universities in Glasgow, 95.1% of these participants were from the University of Strathclyde. Of the final 224, 18.8% (N = 42) were male, and ages ranged between 17 and 52 years, with a mean age of 21.73 years (SD = 6.44). The majority of participants (54.0%) were studying psychology (either in isolation or as part of a combined degree), but participants studied a range of other subjects, the most common of which included the physical or medical sciences (8.4%), pharmacology (8.1%), education (7.0%), languages (3.9%), and humanities (4.9%).

Although recruitment materials – as well as the survey information itself – explicitly stated that only undergraduates were invited to participate, students from those disciplines which comprise of run-on undergraduate-postgraduate courses as standard, participated nonetheless. Despite their technically postgraduate status (post 3rd or 4th year, depending on the specific course studied), upon consideration it was deemed reasonable to include these participants in analyses. It was believed that their default continuation into postgraduate study from undergraduate study represented an extended period of study as part of the same population, as opposed to their transfer out of an undergraduate population and into a postgraduate one – particularly given that they had self-identified as undergraduates. It therefore seemed feasible that they would continue to constitute part of a similar reference group to their (technically) undergraduate counterparts, on account of their automatic continuation of the same course of study, alongside the same peers. As such, the final sample comprised 85.3% students currently studying for bachelors' degrees, 13.8% currently studying for masters' degrees, and 0.9% studying on other postgraduate programmes. In terms of year of study, 35.7% of participants were in their 1st year, 26.3% in their 2nd, 23.2% in their 3rd, 14.3% in their 4th and 0.4% were in their 5th year. 57.1% of respondents were currently living with family, 22.3% with friends, 5.8% with their partner and 0.8% were currently living alone. 11.6% were living in student halls, which typically involves cohabiting with other students.

5.6.2 Differences between perceived norms and reported norms[16] [17]

[15] Those with >50% missing data were excluded on the basis that 50% of the data could potentially represent a complete set of data for either the descriptive or the injunctive norms items. In reality, missing data may have been more arbitrary than this, but considering many participants started the survey but did not complete it, it was considered a reasonable threshold.

[16] Upon inspection of the data, it was decided that given the very low numbers of responses obtained for those reference groups for which "not applicable" was an option (i.e. siblings, partners and children), those groups would be excluded from all analyses in order to avoid empty cells and make

Thoughts of self-harm

48.2% of the sample reported having had thoughts of self-harm at some point in their life. As illustrated in Figure 5.1, the majority of people believed that those close to them had never had thoughts of self-harm, but that more distal groups had had thoughts of self-harm at some point in their lives.

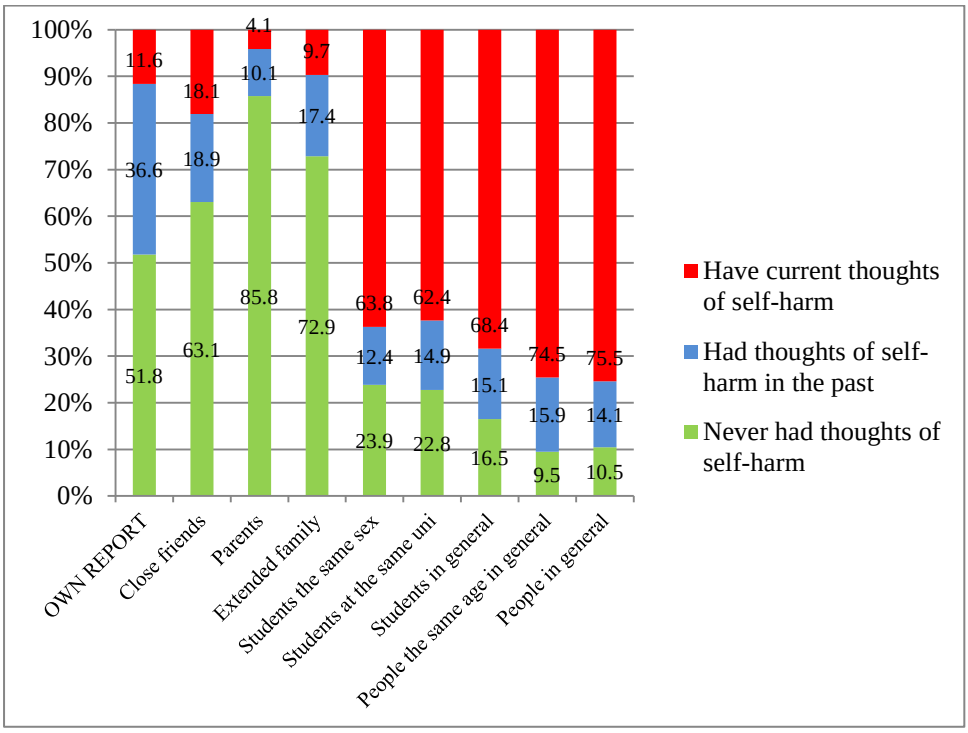

Figure 5.1: Reports of thoughts of self-harm alongside perceptions of other groups' thoughts of self-harm.

Friedman's ANOVA indicated that participants' perceptions of others' thoughts of self-harm significantly differed from their own reported thoughts of self-harm (X^2 (8) = 781.279, p < .001). Post-hoc Wilcoxen signed-ranks tests indicated significant differences between

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analyses more meaningful. In addition, given the sometimes extremely thin spread of responses across the range of response options, it was deemed appropriate to collapse responses into fewer categories, thereby increasing the number of responses in each category to more reasonable levels (i.e. the response options "have done occasionally in the past" and "have done regularly in the past" were collapsed into "in the past", whilst "do so occasionally" and "do so regularly" were collapsed into "do so currently").

[17] NB. A Bonferroni correction was applied for all post-hoc Wilcoxen signed-ranks tests so effects are reported at p = .00625.

reported thoughts of self-harm and perceptions of thoughts of self-harm in parents (T = 688.00, r = -.32) and extended families (T = 1574.00, r = -.17), with both of these groups perceived as less likely to have thoughts of self-harm than participants reported themselves. Close friends also tended towards being perceived as less likely to have thoughts of self-harm, but not significantly. Significant differences were also found between reported thoughts of self-harm and perceptions of thoughts of self-harm in students of the same sex (T = 1427.50, r = -.42), students attending the same university (T = 1537.00, r = -.41), students in general (T = 1365.60, r = -.44), people of the same age (T = 760.50, r = -.51) and people in general (T = 752.00, r = -.51), with all of these groups perceived as more likely to have thoughts of self-harm than participants reported themselves.

Self-harm

30.3% of the sample reported having engaged in self-harm at some point in their life. As can be seen from Figure 5.2, the majority of people believed that those close to them had never engaged in self-harm, but that those in more distal groups had engaged in self-harm at some point in their lives.

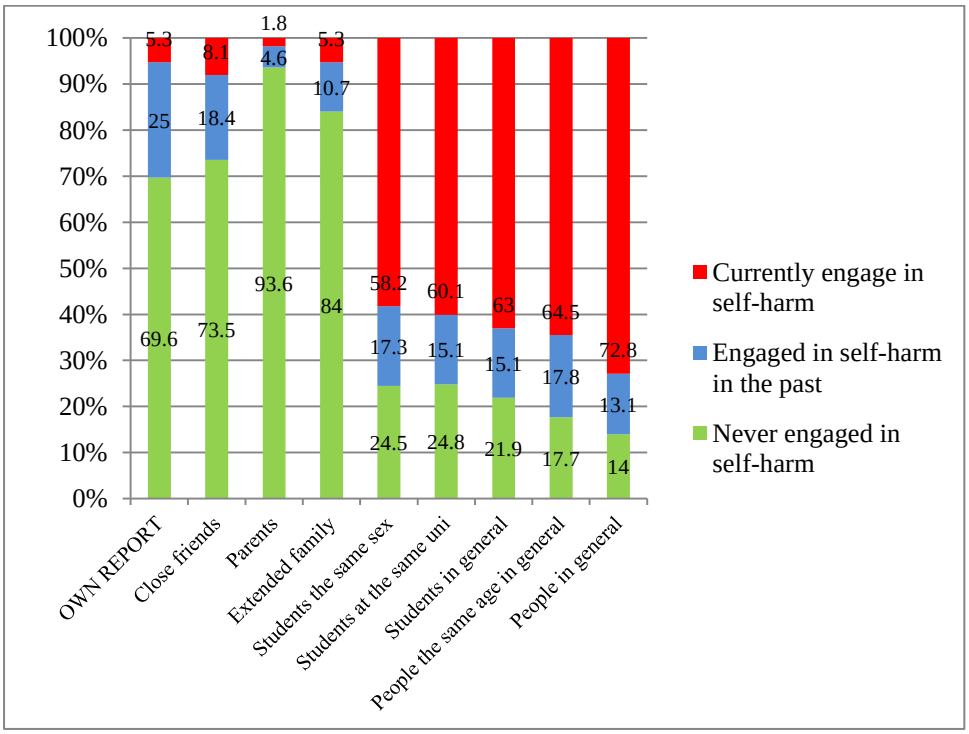

Figure 5.2: Reports of self-harm alongside perceptions of other groups' self-harm.

Participants' perceptions of others' engagement in self-harm were significantly different from reported norms for self-harm (X^2 (8) = 855.119, p < .001). Post-hoc tests revealed that

these differences existed between reported self-harm and perceptions of self-harm in parents (T = 285.00, r = -.27), with parents perceived as less likely to engage in self-harm than participants own reports. Close friends and extended family were also perceived as somewhat less likely to engage in self-harm, but not significantly. Significant differences were also found between reported self-harm and perceptions of self-harm in students of the same sex (T = 1077.50, r = -.45), students attending the same university (T = 1278.00, r = -.45), students in general (T = 1187.50, r = -.47), people of the same age (T = 893.00, r = -.50) and people in general (T = 658.00, r = -.53), with each of these groups perceived as more likely to engage in self-harm than participants' own reports.

Thoughts of suicide

43.3% of the sample reported having had thoughts of suicide at some point in their life. Figure 5.3 demonstrates that the majority of people believed that the more proximal groups had never had thoughts of suicide, but that distal groups had had thoughts of suicide at some point in their lives.

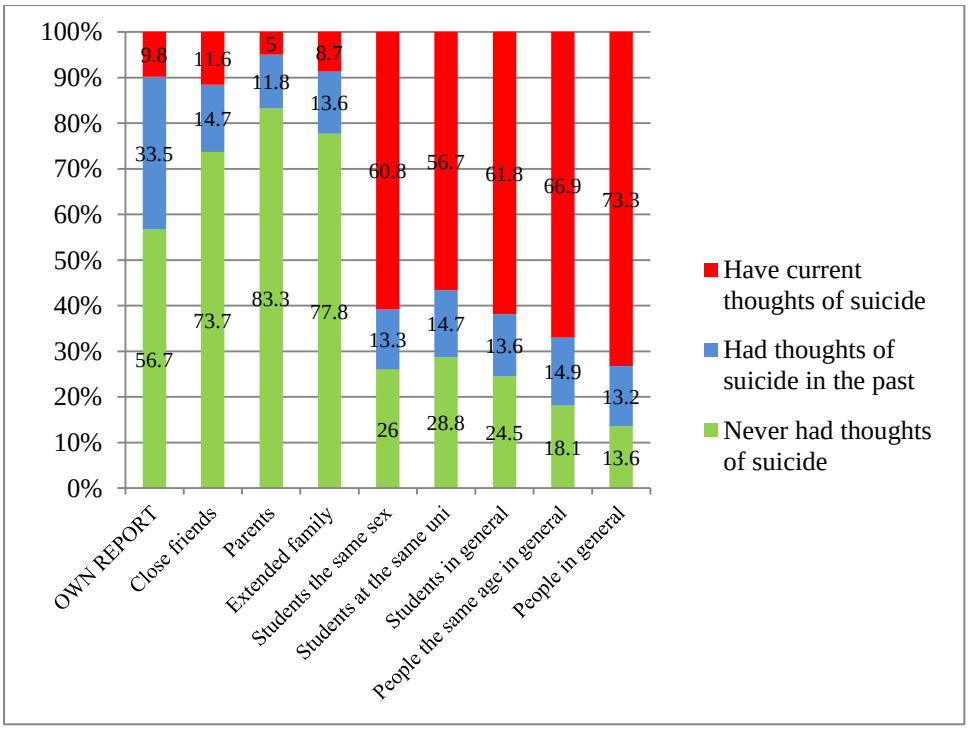

Figure 5.3: Reports of thoughts of suicide alongside perceptions of other groups' thoughts of suicide.

Friedman's ANOVA revealed that participants' perceptions of others' thoughts of suicide significantly differed from their own reported thoughts of suicide (X^2 (8) = 764.641, p <

.001). The significant differences were found between reported thoughts of suicide and perceptions of thoughts of suicide in parents (T = 777.00, r = -.24) and extended families (T = 1362.00, r = -.16), with both of these groups perceived as less likely to have thoughts of suicide than participants reported themselves. Close friends were also perceived as slightly less likely to have thoughts of suicide, but not significantly. Reported thoughts of suicide also differed significantly from perceptions of thoughts of suicide in students of the same sex (T = 1305.00, r = -.42), students attending the same university (T = 1431.50, r = -.40), students in general (T = 1117.00, r = -.44), people of the same age (T = 950.00, r = -.48) and people in general (T = 593.00, r = -.51), with all of these groups perceived as more likely to have thoughts of suicide than participants reported themselves.

Suicide attempts

10.7% of the sample reported having made a suicide attempt at some point in their life. As displayed in Figure 5.4, the majority of people believed that those close to them had never made a suicide attempt, but that more distal groups had made a suicide attempt at some point in their lives.

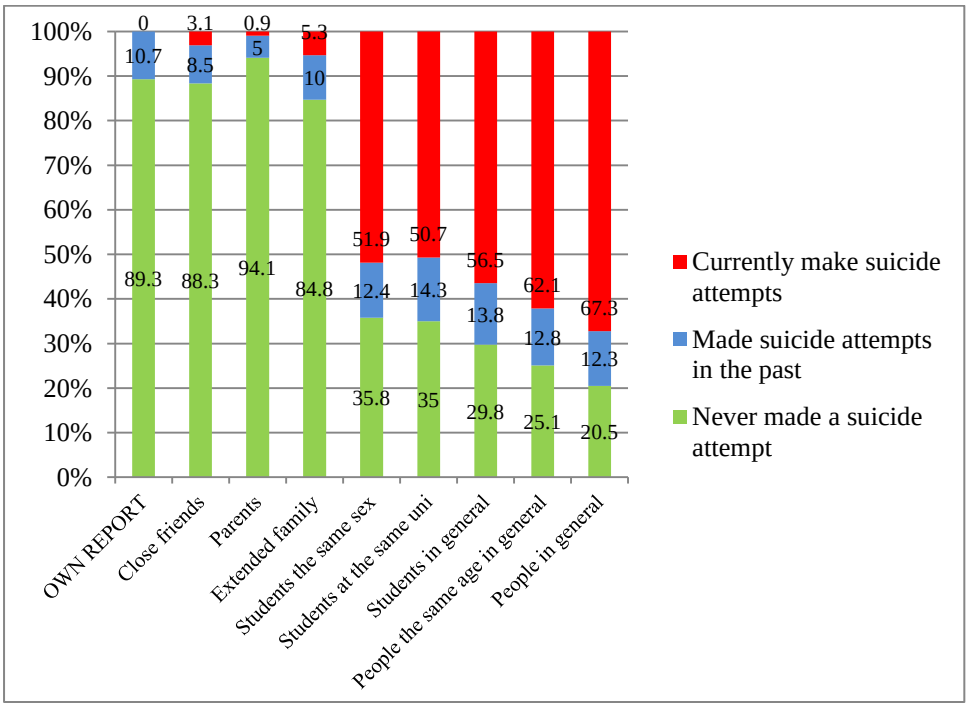

Figure 5.4: Reports of suicide attempts alongside perceptions of other groups' suicide attempts.

Participants' perceptions of others' engagement in suicide attempts significantly differed from their own reported suicide attempts (X^2 (8) = 885.244, p < .001). Post-hoc analyses indicated that reported suicide attempts significantly differed from perceptions of suicide attempts in extended families (T = 306.00, r = -.14), students of the same sex (T = 116.00, r = -.51), students attending the same university (T = 136.00, r = -.51), students in general (T = 90.00, r = -.53), people of the same age (T = 840.00, r = -.55) and people in general (T = 84.00, r = -.57), with all of these groups perceived as more likely than participants reported, to engage in suicide attempts. Close friends were also perceived as more likely to engage in suicide attempts, though not significantly, and parents were perceived as less likely to do so, but again, not significantly.

Attitudes towards self-harm

The majority of the sample (66.1%) reported believing that self-harm is ok, at least under certain circumstances. Figure 5.5 illustrates that most people reported believing that those close to them believe self-harm to be completely wrong, whilst more distal groups also believe self-harm to be ok.

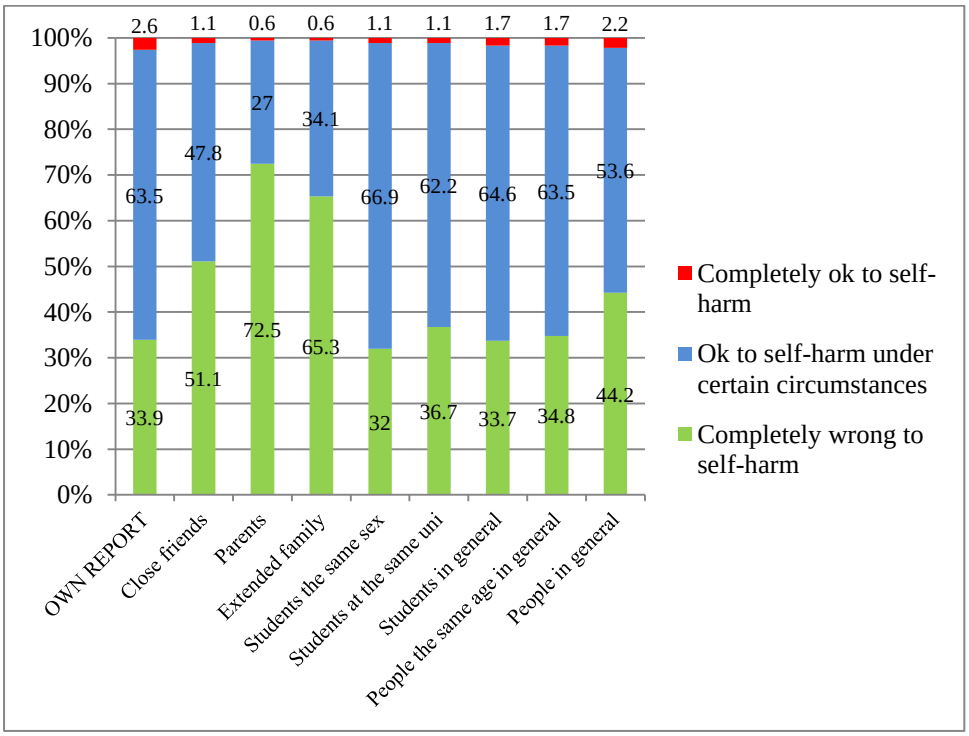

Figure 5.5: Reports of attitudes towards self-harm alongside perceptions of other groups' attitudes towards self-harm.

Participants' perceptions of others' approval of self-harm significantly differed from their own reported approval of self-harm (X^2 (8) = 232.910, p < .001). Examination of post-hoc tests revealed that significant differences lay between reported approval of self-harm and perceptions of approval of self-harm in close friends (T = 393.50, r = -.09), parents (T = 69.00, r = -.42), and extended families (T = 227.50, r = -.35), with all of these groups perceived as less likely to approve of self-harm than participants reported themselves. All other groups were also perceived as less likely to approve of self-harm, although only the above reached significance.

Attitudes towards suicide attempts

The majority of the sample (67.2%) reported believing that making a suicide attempt is ok, at least under certain circumstances. As can be seen in Figure 5.6, most people reported believing that more proximal groups believe making a suicide attempt to be completely wrong, but that more distal groups also believe making a suicide attempt to be ok.

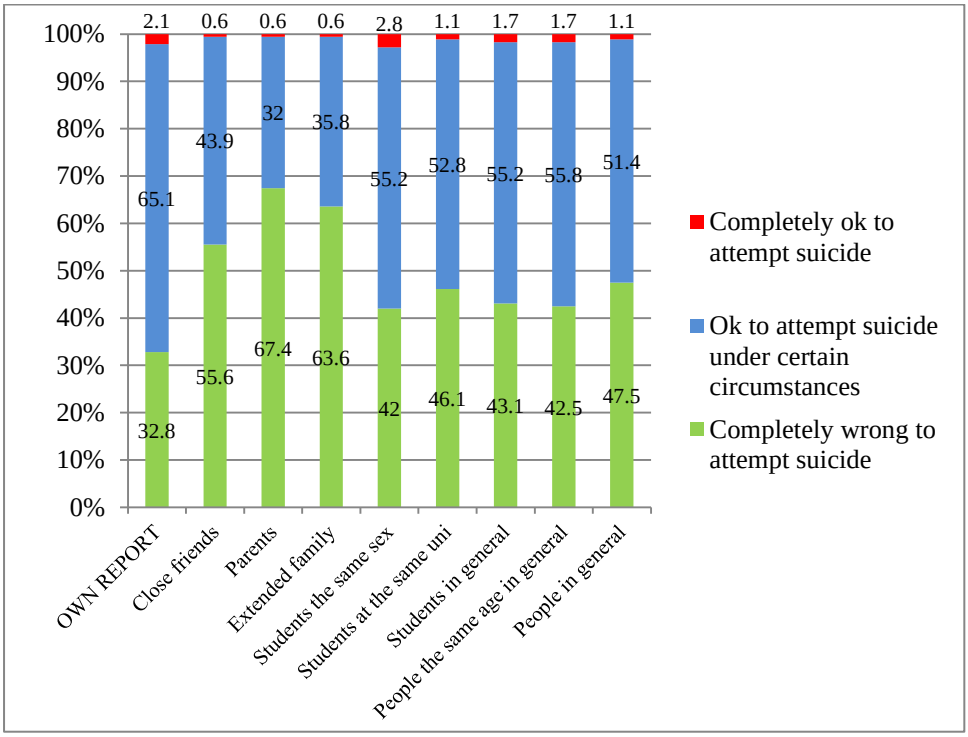

Figure 5.6: Reports of attitudes towards suicide attempts alongside perceptions of other groups' attitudes towards suicide attempts.

Participants' reported norms for approval of suicide attempts significantly differed from their perceptions of other groups' approval of suicide attempts (X^2 (8) = 161.776, p < .001). Analyses indicated that reported approval of suicide attempts significantly differed from

perceptions of approval of suicide attempts in close friends (T = 137.50, r = -.32), parents (T = 144.00, r = -0.40), extended families (T = 134.00, r = -.38), students attending the same university (T =385.00, r = -.19), students in general (T = 424.00, r = -.15), people of the same age (T = 504.00, r = -.14) and people in general (T = 558.00, r = -.19), with all of these groups perceived as less likely to approve of suicide attempts than participants reported themselves. Again, all other groups tended towards being perceived as less likely to approve of suicide attempts, but only the above reached significance.

5.6.3 Factors associated with reported norms

For reported thoughts of self-harm, reported engagement in self-harm, and reported attitudes towards self-harm, the predictor variables entered into the regression model were age, sex, perceptions of all reference groups' thoughts of self-harm, perceptions of all reference groups' engagement in self-harm and perceptions of all reference groups' attitudes towards self-harm (26 predictors). For reported thoughts of suicide, reported suicide attempts, and reported attitudes towards suicide attempts, the predictor variables entered into the regression model were age, sex, perceptions of all reference groups' thoughts of suicide, perceptions of all reference groups' suicide attempts and perceptions of all reference groups' attitudes towards suicide attempts (26 predictors). Collinearity diagnostics were run to check for multicollinearity between variables within each model. Given the high number of predictors entered into each model, only those which were significantly associated with outcomes are presented here.

Field (2005) argues that when calculating the predictor to sample size ratio, there should be at least 10 participants for every predictor entered into a regression model. For current purposes, a sample of 224 would therefore accommodate the use of 22 predictor variables. However it has been argued that this may be too simplistic a method and other researchers have proposed slightly different strategies. Green (1991) argues that the rule "$N > 50 + 8m$", where m is the number of predictors, is a more accurate strategy. Given that the current study recruited 224 participants, this rule would indicate that the use of a maximum 21 predictors is appropriate. If, on the other hand, individual predictors are of more importance than an entire model, Green (1991) argues that the rule "$N > 104 + m$", is more appropriate. For the current study, this would allow for 120 predictors to be entered into a model. Given the lack of research into this area to date, it is arguably of more consequence to determine which individual factors are associated with an increase in SSHBs (in order that they might be specifically targeted), than to test an entire model, so although the number of predictors

entered into the current models exceeds the rule regarding model power, it was deemed appropriate to include them in the interests of identifying individual predictors of behaviour (and indeed, models were without exception, improved by the inclusion of all variables). It has also been argued that the "$N > 50 + 8m$" rule may overestimate the minimum sample sizes required (Green, 1991) so exceeding this figure only slightly may not be overly problematic even if testing the overall models was a particular concern.

Thoughts of self-harm

Those who believed that their extended family approved of self-harm, were over 3 and a half times more likely to reporting having thoughts of self-harm themselves, whilst believing that people in general approved of self-harm was negatively associated with reported thoughts of self-harm. The overall model did not reach significance. Inspection of collinearity diagnostics indicated that all tolerance levels were > 0.1, all variance inflation factors (VIF) were < 10 for all variables, and no eigenvalue was much larger than the others, such that serious multicollinearity was not evident (Field, 2005). Table 5.1 illustrates the odds ratios and the 95% confidence intervals for variables associated with thoughts of self-harm.

Table 5.1: Factors associated with reported thoughts of self-harm

	P-value	Odds ratio (OR)	95% confidence intervals for OR	
			Lower	Upper
Family attitudes towards self-harm	.048	3.544	1.009	12.447
People in general attitudes towards self-harm	.004	0.172	0.052	0.571

Note: Model X^2 (26) = 38.766, p = .051. R^2 = .215 (Cox & Snell), .287 (Nagelkerke).

Self-harm

The regression model explained between 27.1 and 38.2% of the variation in reports of self-harm. Age was negatively associated with reporting ever having engaged in self-harm, with younger participants more likely to report doing so. Those who believed students the same sex as them have thoughts of self-harm were more than twice as likely to report having engaged in self-harm themselves, whilst reporting that people in general approve of self-harm was negatively associated with reported self-harm. As the variables in the current model are identical to those in the previous, no multicollinearity was indicated. Table 5.2

illustrates the odds ratios and the 95% confidence intervals for those factors which were significantly associated with reported self-harm.

Table 5.2: Factors associated with reported self-harm

	P-value	Odds ratio (OR)	95% confidence intervals for OR	
			Lower	Upper
Age	.044	0.868	0.757	0.996
Same sex students thoughts of self-harm	.021	2.151	1.123	4.122
People in general attitudes towards self-harm	.045	0.271	0.075	0.970

Note: Model X^2 (28) = 50.529, p = .003. R^2 = .271 (Cox & Snell), .382 (Nagelkerke).

Thoughts of suicide

Between 35.5 and 47.6% of the variance in reported thoughts of suicide was accounted for by the regression model. Believing that close friends, parents or students in general had had thoughts of suicide was significantly positively associated with reported thoughts of suicide. Those who reported believing that students in general approved of suicide attempts were also far more likely to report their own thoughts of suicide. However, believing that people of the same age have thoughts of suicide or approve of suicide attempts was negatively associated with reported thoughts of suicide. Collinearity diagnostics suggested possible multicollienarity between many of the variables, with tolerance levels < 0.1 in some cases, and VIF > 10. Field (2005) argues that the safest way to deal with multicollinearity is to acknowledge its existence and the potential bias it inflicts on the model, but to maintain the variables in the model. Although this is not ideal, the removal of one of more variables may in itself pose further problems, in that it would be impossible to decide which variables to remove, and it has been argued that removed variables would need to be replaced by equally important variables (Bowerman & O'Connell, 1990). Table 5.3 illustrates the odds ratios and the 95% confidence intervals for those factors which were significantly associated with reported thoughts of suicide.

Table 5.3: Factors associated with reported thoughts of suicide

	P-value	Odds ratios (OR)	95% confidence intervals for OR	
			Lower	Upper
Friends thoughts of suicide	.004	3.461	1.486	8.061
Parents thoughts of suicide	.047	2.512	1.011	6.243
Students in general thoughts of suicide	.046	6.263	1.030	38.088
People of the same age thoughts of suicide	.026	0.374	0.157	0.891
Students in general attitudes towards suicide attempts	.023	34.062	1.615	718.598
People of the same age attitudes towards suicide attempts	.045	0.078	0.006	0.948

Note: Model X^2 (26) = 70.476, p < .001. R^2 = .355 (Cox & Snell), .476 (Nagelkerke).

Suicide attempts

Only perceptions of students' of the same sex approval of suicide attempts was (positively) associated with reported suicide attempts, and the overall model was not significant. As the variables in the current model were identical to those in the previous, multicollinearity was again observed, so it should be acknowledged that this model may be biased (Field, 2005). Table 5.4 illustrates the odds ratios and the 95% confidence intervals for those factors which were significantly associated with reported thoughts of suicide.

Table 5.4: Factors associated with reported suicide attempts

	P-value	Odds ratios (OR)	95% confidence intervals for OR	
			Lower	Upper
Students of the same sex attitudes towards suicide attempts	.013	7.894	1.548	40.263

Note: Model X^2 (26) = 34.527, p = .122. R^2 = .193. (Cox & Snell), .358 (Nagelkerke).

Attitudes towards self-harm

The regression model accounted for between 38.2 and 53.3% of the variance in reported attitudes towards self-harm. Those who believed that their parents held more positive

attitudes towards self-harm were significantly more likely to report their own positive attitudes towards self-harm. Those who believed that students in general engage in self-harm were also more likely to report positive attitudes towards self-harm. However, those who believed that people in general held positive attitudes towards self-harm were less likely to report positive attitudes themselves. As the variables are identical to those in the *thoughts of self-harm* and *self-harm* models above, no multicollinearity was indicated for this model. Table 5.5 illustrates the odds ratios and the 95% confidence intervals for those factors which were significantly associated with reported attitudes towards self-harm.

Table 5.5: Factors associated with reported attitudes towards self-harm

	P-value	Odds ratio (OR)	95% confidence intervals for OR	
			Lower	Upper
Parents attitudes towards self-harm	.016	25.228	1.803	353.033
Students in general self-harm	.016	3.733	1.274	10.937
People in general attitudes towards self-harm	.049	0.256	0.066	0.994

Note: Model X^2 (10) = 77.032, $p < .001$. R^2 = .382 (Cox & Snell), .533 (Nagelkerke).

Attitudes towards suicide attempts

Between 46.0 and 64.8% of the variance in attitudes towards suicide attempts was explained by the regression model. Those who believed that their friends had thoughts of suicide or held positive attitudes towards suicide attempts were significantly more likely to report positive attitudes towards suicide attempts themselves. However, beliefs that students at the same university or people of the same age had thoughts of suicide, and that students in general made suicide attempts, were associated with less positive views of suicide attempts. As the predictor variables are identical to those used in the *thoughts of suicide* and *suicide attempts* models above, some indicators of multicollinearity were present for the current model, so it should be acknowledged that this model may be biased (Field, 2005). Table 5.6 illustrates the odds ratios and the 95% confidence intervals for attitudes towards suicide attempts.

Table 5.6: Factors associated with reported attitudes towards suicide attempts

	P-value	Odds ratio (OR)	95% confidence intervals for OR	
			Lower	Upper
Friends thoughts of suicide	.014	3.208	1.272	8.093
Friends attitudes towards suicide attempts	.019	19.873	1.650	239.404
Students at the same uni thoughts of suicide	.019	0.318	0.123	0.825
Students in general suicide attempts	.016	0.185	0.047	0.728
People of the same age thoughts of suicide	.009	0.166	0.043	0.636

Note: Model X^2 (18) = 99.273, p < .001. R^2 = .460 (Cox & Snell), .648 (Nagelkerke).

5.6.4 Beliefs about others' influence over one's own behaviour

If participants reported ever having engaged in a behaviour, additional questions were displayed at the end of the survey regarding whether or not they knew or suspected that anybody else had done so, when they first did so, and if so, whether or not they believed this had influenced them. The majority of participants never saw these items (as they responded negatively to the own behaviour items), and of those who did, many did not respond. Numbers of respondents were therefore too low to conduct any inferential analyses, and participants tended not to differentiate between "knowing" and "suspecting" (often providing identical responses in each box), but some descriptive information is nevertheless reported below.

Across all behaviours, by far the most commonly cited group reported to have previously engaged in SSHBs when the individual first did so were friends. Other commonly reported others included parents, siblings, extended family, romantic partners and school or work mates.

Thoughts of self-harm

Of the 68 participants who responded to these items, 94.1% reported knowing someone who had engaged in SSHB when they first had thoughts of self-harm, and 80.9% reported suspecting that someone they knew had done so. 51.5% reported that others' behaviour had no influence on their thoughts of self-harm, whilst 22.1% reported that it made them more

likely to think about self-harming, and 20.6% reported that it made them less likely to think about self-harming. 5.9% were unsure.

Self-harm

Of the 43 participants who responded to these items, 95.3% reported knowing someone who had engaged in SSHB when they first self-harmed, and 81.4% reported suspecting that someone they knew had done so. 60.5% reported that others' behaviour had no influence on their engaging in self-harm, whilst 23.3% reported that it made them more likely to self-harm, and 14.0% reported that it made them less likely to self-harm. 2.3% were unsure.

Thoughts of suicide

Of the 52 participants who responded to these items, 94.2% reported knowing someone who had engaged in SSHBs when they first had thoughts of suicide, and 69.2% reported suspecting that someone they knew had done so. 55.8% reported that others' behaviour had no influence on their thinking about suicide, whilst 17.3% reported that it made them more likely to think about suicide, and 26.9% reported that it made them less likely to think about suicide.

Suicide attempts

Of the 15 participants who responded to these items, 100% reported knowing someone who had engaged in SSHB when they first made a suicide attempt, and 66.7% reported suspecting that someone they knew had done so. 66.7% reported that others' behaviour had no influence on their attempting suicide, whilst 13.3% reported that it made them more likely attempt suicide, and 20.0% reported that it made them less likely to attempt suicide.

5.7 Discussion

The current study broadly aimed to determine whether discrepancies existed between undergraduates' perceived and reported norms around SSHBs, and whether their perceptions were predictive of their attitudes or behaviours. The results partially supported the hypotheses, but some unexpected findings were obtained. Significant discrepancies were observed for all four behavioural outcome variables (i.e. thoughts of self-harm, self-harm, thoughts of suicide and suicide attempts) and for both attitudinal outcome variables (attitudes towards self-harm and attitudes towards suicide attempts) between self-reports and perceived norms, but these were only significant for certain reference groups and were not

always in the predicted direction. Injunctive norms were more often associated with outcomes, although descriptive norms were also predictive, and significant predictor variables differed between models. Of the small number of participants who responded to the relevant items, the majority reported knowing or suspecting that someone they knew had engaged in SSHBs when they first engaged in such behaviours themselves, but most people did not believe that they were influenced by others' behaviour.

48.2% of the sample reported having had thoughts of self-harm at some point in their life, 30.3% reported having actually engaged in self-harm, 43.3% reported having had thoughts of suicide, and 10.7% reported having made a suicide attempt at some point in their life. These figures are larger than might be expected for this age group based on official statistics and previous research, particularly with regard to acts of self-harm and suicide attempts (e.g., ONS, 2014; see Chapter 1). A possible explanation for these heightened rates is that university students may be more prone to stress and other mental health problems than their non-student counterparts, perhaps as a result of difficulties associated with identity development, academic pressures, social expectations and relationship problems (e.g., Kadison & DiGeronimo, 2004). Studies have shown that in recent years, students are increasingly seeking help for psychological problems, and that the severity of reported problems is gradually escalating; including more frequent reports of self-harming and suicidality (see Kitzrow, 2003). In addition, there is evidence to suggest that suicide may be associated with increased intelligence, with national IQ scores positively related to suicide rates across a sample of eighty-five countries, (Voracek, 2004), and a much higher than average incidence of suicide observed within a longitudinal study of gifted children (Holahan, Sears & Cronbach, 1995). It could be argued that university students are likely to be of higher than average intelligence, as intelligence is known to be strongly associated with the number of years of education one has received (Ceci, 1991). Alternatively, the heightened rates of relevant behaviour reported by the current sample may be accounted for by the self-selection into the study of those with a particular interest in such behaviours (due to their own engagement therein). Minimisation of biased self-selection was attempted by advertising the current study as a study of risky health behaviours in general, but although suicide and self-harm were not advertised to be the main focus, it is possible that those who engage in SSHBs and consider those behaviours risky, may have been disproportionately attracted to the study regardless.

In addition to the heightened rates of reported SSHB, there were a number of other surprising findings. Sex was not significantly associated with any of the reported behaviours

or attitudes, despite consistently reported sex-related patterns for suicide and self-harm in the literature (i.e. that self-harm is more common in females, whilst suicide is more common in males; GROS, 2013; Nock, Borges, Bromet, Cha, Kessler & Lee, 2008; see Chapter 1). However, only 18.8% of the sample was male so these findings may be the result of a gender-imbalance in sampling. Age was negatively associated with ever having self-harmed, which was also contrary to expectation given that logically, one might expect frequency of *any* experience to increase with age. However, a suggested explanation for this is that perceptions of what constitutes an act of self-harm may differ with age, such that younger participants were more likely to report a wider range of activities under the umbrella term "self-harm" (such as picking scabs or scratching the skin), whilst older participants tended to exclude more behaviours from their definitions, including only the more serious behaviours (such as overdosing or cutting oneself). An alternative explanation is that younger participants simply recall acts of self-harm more readily than do older participants, perhaps as a function of their recentness.

5.7.1 Interpretation of the data regarding hypothesis (i):

Hypothesis (i) predicted that there would be a discrepancy between undergraduates' reported SSHB and their perceptions of normative behaviour, with others perceived as more likely to engage in SSHBs than they report doing themselves. This was partially supported. For all four behavioural outcome variables (thoughts of self-harm, self-harm, thoughts of suicide, and suicide attempts), there were significant discrepancies between participants' self-reports, and their normative perceptions, as predicted. However, the direction of discrepancy was not always consistent with what was expected (and what has been observed in previous social norms research). There was an overall tendency for participants to believe that proximal groups were less likely to engage in SSHBs than self-reported norms, but that distal groups were more likely to do so. Parents and extended family tended to be perceived as less likely to engage in thoughts of self-harm, self-harm and thoughts of suicide than participants reported themselves (and close friends norms were perceived is the same direction, though differences with self-reports were not significant), whilst distal groups were perceived as more likely to do so. Suicide attempts were perceived slightly differently, with all groups apart from parents perceived as more likely than participants' reports to make suicide attempts (though only proximal groups were perceived significantly so).

The perception that more distal groups tend to engage in SSHBs more than individuals reported themselves is consistent with what was predicted, and what has been shown in other

behavioural domains such as substance use (McAlaney, Boot, Dahlin, Lintonen, Stock, Rasmussen & Van Hal, 2012), risky sexual behaviour (Lynch, Mowrey, Nesbitt &O'Neill, 2004) and (lack of) seatbelt use (Litt, Lewis, Linkenbach, Lande & Neighbours, 2014; see Chapter 3 for more detail). The perception that more proximal groups are less likely to do so however, is inconsistent with expectations and with past social norms research, and may be indicative of inherent differences in the way that SSHBs are perceived in comparison to those behaviours which have previously been investigated. As discussed in Chapter 3, individuals tend to believe that others behave in more negative or damaging ways than they do themselves, so whilst the split between proximal and distal groups makes this a little harder to interpret, the perception that many groups are less likely than reported to engage in SSHB, may be indicative of the way in which these behaviours are perceived, in terms of rightness or wrongness; positivity or negativity. It has been shown that students' and other young people's attitudes towards suicide are highly inconsistent (e.g., Beautrais, Horwood & Fergusson, 2004; Domino, Gibson, Poling & Westlake, 1980), so it is possible that differing moral attributions may in part account for the unexpected findings, particularly given that a large proportion of the sample were studying psychology and other social sciences, which may have contributed to their holding more sympathetic or informed attitudes towards these behaviours.

The finding that those close to participants were perceived as less likely (than reported norms) to engage in most SSHBs, whilst those from more distal groups were perceived as more likely to do so, has a number of potential explanations. The most intuitive is perhaps that individuals are likely to have access to more accurate information about those close to them than they are about more general groups, and as SSHBs are relatively rare events in reality, individuals may merely be reporting more accurately on the behaviour of those close to them, whilst overestimating those behaviours in more distal groups. This is consistent with social norms research in other areas which generally finds that self-other discrepancies are smaller for more proximal groups than for distal groups (e.g., Clemens, Thombs, Olds & Gordon, 2008; see Chapter 3). Alternatively, these findings may represent a form of optimism bias (Weinstein, 1980). Although optimism bias traditionally refers to the belief that one is less likely to experience negative events than others, the loss or injury of someone close to an individual through SSHB is likely to be experienced as a negative event for that individual themselves, and may therefore be prone to similar biases as would an event which befalls them directly. Thus, while other people are generally perceived as more likely to engage in SSHB (e.g., students in general, people in general), optimism bias may prevent the individual from believing that the same is true of those close to them. It has previously been

shown that the strength of optimism bias is reduced with decreasing social distance from the target (e.g., Klein & Weinstein, 1997). This notion does not however, account for why all groups – barring parents only – were perceived as more likely to attempt suicide than individuals reported themselves. One suggested explanation for this exception can again be drawn from the optimism bias literature, where it has been found that optimism bias may be at its strongest for events with the most serious or severe consequences (e.g., Heine & Lehman, 1995). It may be that the extremeness of suicide attempts and their potential for fatality may outweigh the relative effect that close others' death or injury might have on an individual, and optimism bias is observed at its strongest for this particular behaviour. The finding that parents were the only group perceived as less likely to attempt suicide than self-reports argues in favour of this as the loss of a parent to suicide may be particularly traumatic to an individual (e.g., Kuramoto, Brent & Wilcox, 2009; Ratnarajah & Schofield, 2008), and therefore remains susceptible to bias.

5.7.2 Interpretation of the data regarding hypothesis (ii)

Hypothesis (ii) predicted that there would be a discrepancy between undergraduates' reported attitudes towards SSHB and their perceptions of normative attitudes, with others perceived as more likely to approve of SSHBs than they report doing themselves. This was also partially supported. For both attitudinal outcome variables (attitudes towards self-harm and attitudes towards suicide attempts), there were again significant discrepancies between participants' self-reports, and their normative perceptions, as predicted. However, these discrepancies were in the opposite direction to what was expected. There was an overall tendency to believe that both proximal groups and distal groups were less likely than reported norms to approve of self-harm, although more distal groups' attitudes were perceived as more similar to participants' own reported attitudes (with no significant discrepancies detected for distal groups). All groups were perceived as less likely than reported norms to approve of suicide attempts (though one group – people of the same age in general – did not reach significance). The perception that all groups are less likely to approve of such behaviours is inconsistent with expectations and with past social norms research, and as described above, may be indicative of inherent differences in the way that SSHBs are perceived in comparison to those behaviours which have previously been investigated.

Previous social norms research in other behavioural domains has observed similar patterns between the perceptions of descriptive compared to injunctive norms, with both being

perceived as higher than reported norms (e.g., Borsari & Carey, 2001, 2003; Perkins 2002). It is perhaps not surprising however, that the current findings indicate differences in the way the two norms are perceived, as the two may be conceptually quite different. Evidence suggests that behaviour tends not to necessarily show cross-situational consistency, instead showing context-dependence and susceptibility to a number of environmental factors (e.g., Bem & Allen, 1974; Deiner & Larson, 1984). Conversely, attitudes tend to show more cross-context stability, relying less on situational cues (Fishbein & Ajzen, 1975). This in addition to the inherent differences in SSHBs compared to other behaviours which have been investigated within the social norms literature (e.g., their potential fatality, their link with mental ill-health, their potential to attract stigma or controversy, their hidden or private nature), it seems reasonable that individuals may arrive at their perceptions of attitudes towards such behaviours in slightly different ways to their perceptions of actual behaviour.

5.7.3 Interpretation of the data regarding hypothesis (iii)

Hypothesis (iii) predicted that undergraduates with higher perceived norms for SSHB would be more likely to engage in or approve of those behaviours themselves, and SSHBs would be associated with age and gender. This was partially supported as well. Significant predictor models were generated for four out of the six outcome variables (self-harm, thoughts of suicide, attitudes towards self-harm and attitudes towards suicide), and the regression models generated accounted for a substantial proportion of the variance in the independent variables (as much as 64.8% in the case of attitudes towards suicide attempts). Each model had a varying number of significant predictors within it, with a roughly equal overall number of descriptive norm predictors (9 significant behavioural predictors) and injunctive norm predictors (10 significant attitudinal predictors). Results were complex but there was a general tendency for the perceived norms – particularly injunctive norms – of proximal groups to directly predict behaviour or attitudes, with family members' attitudes towards self-harm positively associated with reported thoughts of self-harm, friends' and parents' thoughts of suicide positively associated with reported thoughts of suicide, parents' attitudes towards self-harm positively associated with reported attitude towards self-harm, and friends' thoughts of suicide and attitudes towards suicide attempts positively associated with reported attitudes towards suicide attempts, for example. There was also a tendency for more distal group norms – particularly injunctive norms – to inversely predict reported norms, with perceptions of people in general's attitudes towards self-harm negatively associated with reported thoughts of self-harm and engagement in self-harm, people of the same age's thoughts of suicide and attitudes towards suicide attempts negatively associated

with reported thoughts of suicide, people in general's attitudes towards self-harm negatively associated with reported attitudes towards self-harm, and students at the same university's and people of the same age's thoughts of suicide, and students in general's suicide attempts all negatively associated with reported attitudes towards suicide attempts. As mentioned previously, age was only (negatively) associated with self-harm, and sex was not associated with any outcome variable.

Interestingly, contradictory to the general proximal groups versus distal groups distinction, perceptions of other student groups' norms – particularly students of the same sex – followed similar patterns to perceived proximal groups' norms, with students of the same sex's thoughts of self-harm predicting reported self-harm, students in general's thoughts of suicide and attitudes towards suicide attempts predicting reported thoughts of suicide, students of the same sex's attitudes towards suicide attempts predicting reported suicide attempts and students in general's self-harm predicting reported attitudes towards self-harm. These results would suggest that something inherent to students, particularly those of the same sex, renders them perceptually closer to individuals themselves, than the other distal groups. In the absence of previous social norms research within this field, the reference groups used in the current study were compiled through consulting social norms surveys from other fields and through consideration of the literature reviewed in Chapter 2. As such, there were no theoretically-based expectations regarding which groups' norms may be more closely associated with individuals' own, outside of the poorly defined proximal/distal distinction. It may be that students of the same sex are considered more proximal than previous research has indicated, or this observation may simply be unique to the current behaviours of interest, which as previously mentioned, may have fundamental differences to those previously studied.

That perceived proximal group norms were often predictive of reported norms is consistent with previous social norms research (e.g., Borsari and Carey, 2003; see Chapter 3). Within other behavioural domains, previous research suggests that perceptions of proximal groups' behaviour is most closely associated with reported norms (i.e. more closely than more distal groups) and it has been suggested that this may be because proximal group norms are quite simply more salient, and the groups themselves more relevant (Borsari & Carey, 2003). The inverse associations observed between reported and perceived norms for more distal groups in the current study is inconsistent with previous research into discrepancies between reported and perceived norms, but may be accounted for with reference to classic social psychology theory. Social identity theory (Tajfel & Turner, 1979) and self-categorisation

theory (Turner, Hogg, Oakes, Reicher & Wetherall, 1987) posit that an individual's identity is derived from both their sense of self and their sense of which groups they are a part, that individuals can belong to a number of different groups simultaneously, and that identity may temporarily shift to fit particular contexts. In the current sample, it is possible that participants conceptualised each of the more proximal groups as ultimately part of their group (various in-groups), whilst everyone else was perceived as different or deviant (the out-group). White and Dahl (2007) demonstrated that different groups of others are perceived differently on the basis of how closely associated they are to an individual's in-group, such that the more dissociated they are, the less connected the individual feels to that group (and the more "other" they become). The tendency of individuals to exaggerate the similarities between members of an in-group and the differences between an in-group and an out-group, and to construct either in-group or out-group norms based upon a desire to maximise polarisation between the two, may help to explain the differences in perceptions of proximal versus distal group norms in the current study (see Hogg & Reid, 2006). Whilst individuals in the current study were directly influenced by the behaviour and attitudes of those considered relatively similar to them, who are therefore relevant and with whom they can identify (e.g., family members, students of the same sex), the behaviour and attitudes of (more distal) out-groups (e.g., people in general) may have been deliberately opposed, such that the belief that those groups engage in a given behaviour or hold a given attitude was enough to deter the individual from doing so themselves.

Some variables were especially strong in their predictive power over outcomes. For example, perceptions of positive attitudes towards suicide in students in general were extremely strongly associated with reported thoughts of suicide (OR = 34.062), perceived attitudes of parents towards self-harm were strongly associated with reported attitudes towards self-harm (OR = 24.015), and perceived attitudes of close friends' towards suicide attempts were strongly associated with reported attitudes towards suicide attempts (OR = 19.873). It is unclear why these variables in particular should be so strongly associated, but it is notable that each of these refers to perceived injunctive norms, and groups with which it is likely that participants often associate or with whom they may identify particularly strongly. Such proximity may simply result in individuals being influenced by perceived norms through exposure (or perceived exposure); e.g., "other students think suicide is ok, so it is something that is ok for me to think about"; "my parents think self-harm is ok, so I do too". Alternatively, in the case of the former association, participants who have had thoughts of suicide and have discussed them with other students may have been met with sympathetic attitudes, such that they believe that such an attitude is normative in that population.

Similarly, in the case of the latter two associations, participants may attribute certain attitudes to people close to them, because they hold those attitudes themselves, and as mentioned above, individuals like to maximise similarities between members of their in-groups (Tajfel & Turner, 1979). However, it remains unclear as to why those particular variables are more strongly associated than any others, and further research would be required to substantiate these claims.

Some significant associations also failed to follow the general pattern observed within the other relationships. Contrary to what was observed in other models, perceived thoughts of suicide in students at the same university and students in general were negatively associated with own reported attitudes towards suicide. One suggested explanation for these findings is that as relatively rare and hidden behaviours, participants had not encountered people communicating thoughts of suicide, and as a result, are of the belief that such behaviours are relatively severe. This may render them more sympathetic to such behaviours (in that they are believed to only occur in the most extreme circumstances), and thus result in their reporting less negative attitudes towards suicide. Alternatively, and referring once again to social identity theory (Tajfel & Turner, 1979), holding relatively approving views towards suicide attempts may promote the belief that one (along with other members of one's in-group) is unique in one's compassion, whilst other groups are perceived as less compassionate. It is unclear why groups that were previously treated as similar to more proximal groups should now be treated akin to more distal groups, and again, it is unclear why such divergent patterns should specifically be observed in regard to thoughts of suicide, but these discrepancies may be accounted for by the extremeness of suicide attempts as a behaviour in comparison to other behaviours within the spectrum. The current findings themselves have indicated that suicide may be perceived uniquely to the other behaviours in question, with self-other discrepancies showing similar patterns across all behaviours apart from suicide attempts, so it seems reasonable to assume that attitudes towards suicide attempts might be prone to displaying similarly atypical patterns. Further research exploring the reasons behind both individuals' perceptions of prevalence, and their reported attitudes towards suicide, would help to clarify these issues.

5.7.4 Interpretation of data regarding perceptions of others' influence over one's own behaviour

Although not associated with a formal hypothesis, the current study explored participants' reports of knowing or suspecting someone to have engaged in SSHBs when they first did so

themselves, in a modest attempt to address the lack of clarity in the literature regarding the direction of influence between perceptions and behaviour. As noted in Chapter 2, the literature exploring relationships between individuals' and others' SSHB tends not to capture participants' behaviour prior to their reported exposure to information regarding others' behaviour, or to determine the causal direction of relationships. The current study asked individuals to report on their perceptions of others' behaviour at the time at which they first engaged in that behaviour, in an attempt to address this. Despite a lack of responses rendering statistical analyses unfeasible, the descriptive results appear to suggest that most people believe that they knew someone to have engaged in SSHB when they first did so. For all four behaviours, the vast majority of participants reported knowing or suspecting that others had engaged in such behaviours when they first did so. Interestingly, despite this, the majority believed that this had had no influence on their subsequent behaviour.

These findings suggest that for the majority of people, their perception that others engage in SSHB preceded their own engagement in those behaviours, and thus may have contributed to its onset, despite their denial of it doing so. This of course cannot be confirmed or denied without more rigorous, statistically-verified, longitudinal inquiry, but such results offer support for previous findings that perception may be causal in influencing behaviour, as discussed in Chapter 3 (e.g., Neighbours, Dillard, Lewis, Bergstrom & Neil, 2006). The finding that most people deny any impact of normative influence on their own behaviour is unsurprising, and has been shown to be the case in other areas. Nolan, Schultz, Cialdini, Goldstein and Griskevicius (2008) for example, found that despite being the strongest predictor of conservation behaviour and eliciting the largest change in behaviour, participants rated descriptive normative perceptions as the least important factor in motivating their own behaviour. This lack of awareness of external influence has been termed *introspection illusion* (Pronin, Molouki & Berger, 2007), and is postulated to result from individuals' tendency to judge their own conformity to norms as illustrative of personal beliefs and attitudes, as opposed to susceptibility to external influence, which is perceived to be the cause of other people's conformity. It is of course also possible however, that participants were not influenced, that their responses are accurate, and that their perceiving others to have engaged in similar behaviours was coincidental, but the evidence strongly suggests people may simply not be aware of their own susceptibility to normative influence.

5.7.5 Strengths and limitations

An obvious strength of the current study is that it is – to the author's knowledge – the first study to systematically investigate the social norms of SSHBs and whether or not perceived social norms are associated with reported behaviour and attitudes in this domain. However, the novelty of the study generated associated challenges, such as having to create the survey from scratch, informed only by previous surveys exploring relatively dissimilar behaviours. As described in Chapter 4, the design of an analogous survey was challenging given the nature of the behaviours of interest, and although the pilot study arguably maximised the likelihood that participants were able to complete the surveys accurately, there is a chance that issues remained around comprehension or even the ability to report accurately on the behaviours in question. Some items were difficult to word, and pairs of items which enable comparison of individuals' own reported behaviour with their perceptions of that of others (see McAlaney, Bewick & Bauerle, 2010) would have been inappropriate for some behaviours (e.g., dying by suicide). However, it is believed that the current study nevertheless represents an effective first attempt at measuring the perceived and reported social norms surrounding SSHBs, particularly given the reasonable sample size.

An additional issue is that a large proportion of participants did not complete the survey, presumably as a result of its length. The necessary addition (for ethical purposes) of questions regarding other behavioural norms made the survey longer than would be ideal. It is unlikely that ethical approval would have been granted for a survey entirely focused on suicide and self-harm, so this was unfortunately unavoidable. Due to the large sample however, a sufficient number of completed surveys were fortunately obtained to conduct adequate analyses, but the survey length is worth considering when designing any subsequent research.

Some complications surrounding the reference groups used were also experienced. Some of the reference groups about which participants were questioned were dropped from analyses (i.e. siblings, partners, children) as responses for those groups were missing for a large proportion of participants. It was assumed that such missing data was on account of some reference groups not being relevant to all participants (e.g., if one does not have a partner), but may also reflect difficulties experienced in responding to items about groups which only contain one person. Some participants may have found it difficult for example, to consider the average behaviour of a group of people – e.g., "students in general" – alongside the average behaviour of a singular named person – e.g., their partner. A larger sample which enabled the splitting of groups for analyses, or the use of separate questions programmed only to appear to those who reported having siblings/partners/children, might have been

useful in addressing this issue. Additionally, multicollinearity was widely observed within the regression analyses and this may be indicative of participants' inability to discern between different groups, or a tendency to see different groups as similar (e.g., students the same sex as them might have been seen as typical students, or people of the same age in general might have been regarded as equivalent to people in general). Despite these concerns, the current study included a large number of relevant reference groups to ensure that those which were important were captured, and whilst findings should be interpreted with caution, they nevertheless make a beneficial contribution to the literature by providing novel information regarding a broad range of reference groups.

A final potential limitation of the current study is the nature of the sample and the subsequent generalisability of the current findings. A higher proportion than would be expected in the general population reported having had thoughts of self-harm (48.2%), engaged in self-harm (30.3%), had thoughts of suicide (43.3%), and attempted suicide (10.7%), and the majority (54.0%) of the sample was comprised of students who studied psychology (at least in combination with other subjects). Given the nature of the research and the focus on behaviours which typically result from some kind of mental distress, individuals with some knowledge of the topic may be atypical in their interest and/or attitudes towards it, or the receipt of academic credits in return for participation may have impacted upon the quality or reliability of responses, such that a less experienced or "psychologist-heavy" sample may have yielded different findings. However, advertising materials publicised the study as investigating "risky behaviours" (as opposed to suicide and self-harm) and were widely distributed across university campuses (as opposed to just within psychology departments), so aside from specifically targeting students from other faculties and those without personal experience of SSHBs, it is difficult to imagine how a more representative sample of participants might be achieved. Furthermore, although generalisability may have been compromised, the relative rarity of the behaviours in question arguably means that a sample containing a higher than expected proportion of "positive" cases provides a richer context within which to assess variables associated with those behaviours, which might not have been statistically possible in a sample containing fewer "positive" cases.

5.7.6 Future research directions

Several features of the current study would benefit from clarification through further research. Given the unexpected findings (in terms of previous social norms research), it

would be interesting to explore what it is about SSHBs that renders them dissimilar to previously studied behaviours, such that those behaviours are perceived to vary as a function of specific reference group membership (when this has not necessarily been the case previously). An understanding of the factors which influence the development of individuals' perceptions, and how individuals conceptualise SSHBs may assist in this, and these issues are addressed in Study 3 (Chapter 7). An understanding of how individuals perceive specific reference groups in relation to themselves and each other may also help to explain the current findings. Previous research has indicated that individuals may identify with several concurrent in-groups (Tajfel & Turner, 1979), so the differences found between the way in which different reference groups were perceived in the current study, may be a function of individuals' identification (or lack thereof) with some groups relative to others. Based on features of social identity theory and self-categorisation theory, it would seem that the current sample identified with proximal groups and student groups more than their same aged peers, for example, but such speculation would benefit from confirmation through specific empirical investigation.

Whilst the current findings are interesting and undoubtedly add to the existing social norms literature, they are restricted to describing the perceptions and related behaviours of Scottish undergraduate students, most of whom were studying psychology. As discussed in Chapters 3 and 4, student populations may represent a group which is particularly vulnerable to social influence. This is because the size and diversity of social networks are typically suddenly increased beyond the limitations of those previously available at home or in school, and for many students, university constitutes their first extended period away from home, surrounded by their peers instead of their family. As such, the current findings may differ to what would be observed within other groups, so investigation of the same concepts within alternative populations would make for further interesting contribution to the literature. In particular, other high-risk populations, or groups within which social structures (typically) differ from that of students, such as adolescents or older adults, would be of interest. Study 2 (Chapter 6) addresses these issues within an adolescent population.

Finally, it would be interesting to explore issues around hypothesis (iv) in more depth. Due to the low number of responses in the current study to the items regarding whether or not participants knew or suspected others had engaged in SSHBs when they first did so (and whether or not they believed that that had influenced them), it was not possible to conduct meaningful inferential analyses on this data. It would be useful to conduct a more thorough investigation of perception of others' SSHBs at individuals' first engagement therein,

perhaps through longitudinal inquiry, in order to help address the questions regarding direction of influence between perception and behaviour. A small number of studies have explored this previously and shown that whilst both seem to have an impact on each other, perception is more predictive of behaviour than vice versa (e.g., Neighbours, Dillard, Lewis, Bergstrom & Neil, 2006), but more detailed investigation of these issues, along with more rigorous measurement of individuals' beliefs about their susceptibility to normative influence, would be beneficial.

5.7.7 Conclusion

The current findings indicated that whilst SSHBs may not be perceived in the same way that other health-damaging behaviours have been shown to be perceived, social norms and normative influence may nevertheless be important in the shaping of individuals' behaviours and attitudes in this domain. Causal direction of course cannot be confirmed using cross-sectional methods, but a number of social norms appear to predict undergraduates' behaviour and attitudes, and the overall regression models generated appear to account for a substantial proportion of the variance in undergraduates' own reported behaviour and attitudes. The outlook is arguably somewhat more positive for these behaviours than for those previously studied within the social norms literature, in that although participants' behaviour and attitudes tended to be directly predicted by those of proximal groups and inversely predicted by those of distal groups, proximal groups were perceived as relatively unlikely to engage in or approve of SSHBs, whilst distal groups were perceived as relatively likely to do so, so participants' subsequent risk of engaging in those behaviours themselves may be attenuated by these relationships. The fact that reported norms were often strongly associated with perceptions of other groups' norms however, highlights the potential utility of the social norms approach in reducing such behaviours, although care would be required in ensuring that the appropriate reference groups were utilised and the appropriate messages disseminated. Further research is required to investigate some of the features of the reported findings, and to further explore whether the social norms approach might represent a useful approach in reducing SSHBs.

5.8 Summary

A social norms survey to measure the reported and perceived norms around SSHBs was designed and piloted within a university student population. After the appropriate

amendments were made, the full survey was completed online by undergraduate participants. Results indicated that there were a number of differences with the way in which the social norms of SSHBs are perceived compared to the norms of previously studied health-damaging behaviours, including differences in the direction of self-other discrepancies and the relative relevance of specific reference groups' norms. Nevertheless, self-other discrepancies were widespread, and normative perceptions were often associated with reported norms, such that the social norms approach may indeed be applicable to these behaviours. The following chapter aims to extend these findings by exploring whether the same patterns are observed within another high-risk population; namely, adolescents.

Chapter 6

Study 2: High-school Social Norms Survey

6.1 Abstract

Background

Study 1 (Chapter 5) indicated that the social norms approach may be applicable to SSHBs in student populations, but that the patterns observed are slightly different to those observed within other behavioural domains. Perceived social norms and any influence thereof over reported norms have yet to be explored regarding SSHBs within adolescent populations. The current study aimed to extend the findings of Study 1 by exploring the social norms of SSHBs within an adolescent sample.

Method

472 high-school pupils (mean age = 14.98 years) from five Scottish high-schools completed anonymous, self-report, paper-based surveys, similar to those used in Study 1, in a classroom setting. Wording was changed where appropriate to accommodate a younger sample, and some of the reference groups differed, but the survey still questioned participants on their own engagement in and approval of SSHBs, and their perceptions of the behaviour and attitudes of other people.

Results

Similarly (though not identical) to the findings of Study 1, compared to reported norms, proximal groups were perceived as less likely to engage in or approve of SSHBs than participants' reported themselves, whilst distal groups tended towards being perceived as more likely to engage in or approve of (though not significantly) SSHBs. Regression analyses identified a number of perceived norms associated with reported norms. Close friends were perceived differently in the current sample compared to the previous, and close friends' norms were associated with all outcome variables.

Conclusion

Findings again differed to those observed in previous social norms research; proximal group norms were again perceived differently to distal group norms, and showed different associations with reported norms. In support of the findings of Study 1, results again argue

for the relevance of the social norms approach to SSHBs, but highlight that careful attention must be paid to reference groups.

6.2 Introduction

As discussed in Chapter 2, adolescents may be particularly susceptible to social influence (e.g., Brechwald & Prinstein, 2011), and at especially high risk of self-harm and subsequent suicide (e.g., O'Loughlin & Sherwood, 2005; Owens, Horrocks & House, 2002). Given that Scottish under 18s may be significantly more likely to die by suicide than their counterparts in England or Wales (Appleby, Shaw, Kapur, Windfuhr, Ashton et al., 2008), the study and ultimate prevention of adolescent suicide is a major issue for Scotland.

Study 1 (Chapter 5) indicated that a number of perceived social norms were associated with undergraduate students' reported SSHBs and attitudes, but that large discrepancies existed between reported and perceived norms, such that normative perceptions may not in fact be accurate, and may contribute to increasing personal behaviour and approval. Unlike previous social norms research, consideration of reference group proved particularly important, as the direction of both self-other discrepancies and associations differed as a function thereof. Descriptive norms and injunctive norms were perceived somewhat differently, and injunctive norms appeared to be particularly strongly predictive of reported norms. It was argued that many of the differences observed in Study 1 in comparison to previous social norms research, may be accounted for by inherent differences in the perception of SSHB compared to those behaviours previously studied.

Social norms research to date has indicated that in addition to students, adolescents may also be susceptible to influence from perceived social norms (e.g., Eisenberg, Neumark-Sztainer, Story & Perry, 2005; Perkins, Perkins & Craig, 2010; Van Der Vorst, Engels, Meeus & Dekovic, 2006; see Chapter 3). The literature review reported in Chapter 2 indicated that the SSHB of children and adolescents may be positively associated with that of people they know, but accurate knowledge of the behaviour of others was usually assumed by the papers reviewed, and distinctions between different reference groups and different behaviours were inconsistent. Normative perceptions of SSHBs and the impact thereof on one's own behaviour have yet to be investigated within an adolescent population, so the current study aimed not only to extend the findings of Study 1 to include a younger population, but to tackle some of the abovementioned limitations of the research to date.

6.3 Aims

The aims of the current study were similar to those of the previously reported undergraduate study (Chapter 5):

- To explore whether differences exist between high-school pupils' perceptions of normative SSHBs and reported behaviour (descriptive norms).
- To further explore whether differences exist between high-school pupils' perceptions of normative attitudes towards SSHBs and reported attitudes (injunctive norms).
- To determine whether any associations exist between any of the variables measured (e.g. age, gender, perceived descriptive or injunctive norms), and high-school pupils' reported SSHBs or attitudes.

6.4 Hypotheses

The hypotheses for the current study were also similar to those for the previously reported undergraduate study (Chapter 5):

i) There would be a discrepancy between high-school pupils' reported SSHB and their perceptions of normative behaviour, with others perceived as more likely to engage in SSHB than they report doing themselves.

ii) There would be a discrepancy between high-school pupils' reported attitudes towards SSHB and their perceptions of normative attitudes, with others perceived as more likely to approve of SSHB than they report doing themselves.

iii) High-school pupils with higher perceived norms for SSHB would be more likely to engage in or approve of those behaviours themselves, and SSHB would be associated with age and gender.

6.5 Method

6.5.1 Participants

Similarly to the undergraduate sample used in Study 1, the high-school sample used in Study 2 was one of convenience, with all eligible potential participants invited to participate (assuming they met the age restrictions and currently attended high-school). Due to their being minors, recruitment of high-school pupils was necessarily more complicated than for the undergraduate sample, and specific guidelines provided by the UEC were necessarily followed.

Scottish high-school pupils aged 12 years and over were eligible to participate. All thirty-two Local Education Authorities (LEAs) in Scotland were contacted by post in the first instance and provided with information on the study (see Appendix F), and schools in their jurisdiction were invited to take part. Of these, eight LEAs provided permission for their schools to be contacted. In most cases, permission was granted to contact all schools in their areas, with the ultimate decision to participate residing with the head-teacher. However, some LEAs provided a number of specific schools for which it was permitted to contact the head-teacher, and others still, informed specific schools directly that they would be participating, and a representative of that school contacted the researcher directly. Reasons for declination included limited time/resources, having taken part in similar research recently, and concerns over the sensitivity of the research topic.

All mainstream schools for which permission had been granted to contact[18] (N = 101) were contacted by post, and, again the study was outlined and pupils invited to participate (see Appendix G). A number of further declines were received at this stage, citing similar reasons as those given by LEAs. A total of seven schools indicated their willingness to take part, and letters were sent to the parents/guardians of those pupils whom the school identified as available to participate (see Appendices H and I). Schools were at liberty to provide whichever pupils they felt appropriate, and numbers and ages of pupils available for participation varied between schools, from one year-group only, through a sample from each year-group, to the entire school, and was dictated by school preference. In accordance with UEC guidelines, all pupils under the age of 16 required parental assent, but letters were sent to parents of all ages, out of courtesy. Five schools provided parental assent, and pupils from those schools made up the final sample. On receipt of parental assent, the researcher then

[18] Only mainstream schools were contacted in an effort to maximise the likelihood that all participants were able to fully understand the nature of the research and provide informed consent for themselves, and on account of a lack of resources available to assist pupils with disabilities or additional educational needs in completing the survey

went into schools to collect participant consent and distribute the surveys. In some cases, the schools requested that study materials (including participant information and consent forms and the surveys themselves) were posted to the school for distribution and completion without the researcher's presence, and this was accommodated [19]. Participants were not offered any compensation or reward for participation, but a summary report of the findings of the study (on completion of the study) was offered to schools.

6.5.2 Design

As with Study 1 (Chapter 5), this study made use of a cross-sectional, anonymous, self-report survey design.

6.5.3 Materials

The anonymous, paper-based survey instrument was based on that used in Study 1 (see Chapter 5), with some changes made in the interests of age-appropriateness (e.g., questions about risky sexual behaviour were removed, as were some reference groups, such as "your partner" and "your children"). Surveys (see Appendix N) questioned participants on their engagement in thoughts of self-harm, self-harm, thoughts of suicide and suicide attempts, and their perceptions of the prevalence of those behaviours amongst their close friends, their siblings, their parents, their extended family, high-school pupils the same age and sex as them, pupils at their high-school, high-school pupils in general and people in general[20]. They were also asked about their attitudes towards self-harm and suicide attempts, and about their perceptions of the attitudes of the above reference groups, regarding those behaviours. Finally, had they engaged in any of the behaviours of interest, they were asked whether they had known or suspected that anyone they knew had previously done so, and whether they believed that this had any impact on their own behaviour.[21] The majority of items in the

[19] Most of the data was collected by the researcher attending the school and distributing the surveys personally. However, some LEAs and individual schools requested that to minimise disruption, they be allowed to distribute the surveys themselves, without the presences of the researcher. Surveys were completed in the same manner regardless (i.e. independently, in a classroom setting).

[20] As was the case for Study 1, a broad range of reference groups was deliberately included to aid the exploration of a particularly atheoretical area.

[21] As was also the case in Study 1, in addition to the items of interest for the current study, surveys questioned participants about a range of other damaging health-related behaviours, such that questions regarding SSHBs were embedded within the context of a survey about health-related behaviours in

survey required a "tick-box" response, with a minority requiring short written answers (in which participants reported their relationship to anyone that they knew or suspected had engaged in SSHB, if and when they first did so themselves). A sheet containing relevant sources of advice and support was provided after survey completion (see Appendix M).

Although Study 1 employed an online survey measure, a paper version of the survey was considered more appropriate for the current study because the high-school pupil participants recruited would be accessed during lesson time, in ordinary classroom settings, where computers would not necessarily be available. It was considered that such a method would ensure timely completion of the survey and that all participants were actually able to complete the survey. It was not anticipated that the different mediums used to collect data between Studies 1 and 2 would have any impact on the findings, as previous research has indicated that aside from in-class completion of questionnaires yielding somewhat higher response rates than online completion (Nulty, 2008), actual responses do not tend to differ (Dommeyer, Baum, Hanna & Chapman, 2004), and online and paper-based versions of the same measures have been found to share equivalent psychometric properties (Riva, Teruzzi & Anolli, 2003). Where differences in responses have been found between different mediums, effect sizes have been small (Carini, Hayek, Kuh, Kennedy &Ouimet, 2003).

6.5.4 Procedure

Ethical approval was obtained from UEC. Surveys – along with information sheets and consent forms (see Appendices K and L) – were administered to participants, who were asked to complete them by hand, in a classroom setting. In-house recruitment methods likely varied from school to school, and exactly how individuals were chosen to participate within each school is unknown to the researcher. However, those pupils who were identified by staff as available to participate and who were either over 16 or for whom parental assent had been obtained (if under 16), were provided with information sheets and invited to sign a consent form indicating that they were willing to participate. Surveys were then administered in a classroom setting and completed independently, en masse. Surveys were collected in after completion, and pupils were dismissed. The whole process took approximately 30-40 minutes.

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general. This was for the purpose of gaining ethical approval, which would be unlikely to be awarded for a survey entirely focused on such sensitive issues as suicide and self-harm. The additional data will be analysed and reported elsewhere.

6.5.5 Analysis

All data was again analysed using IBM SPSS 19. Identically to Study 1 (Chapter 5), Friedman's ANOVA was used to determine whether any differences existed between reported behaviour and attitudes and perceptions of other groups' behaviour and attitudes, post-hoc Wilcoxen signed-ranks tests were conducted to determine where any differences lie (i.e. which reference groups' perceived norms differed from participants' reports), and binary logistic regression was conducted to identify factors associated with reported norms. All dependent and independent variables were the same as those in Study 1, and were therefore measured in the same way. See Chapter 5, section 5.5.6 for full details of analyses.

6.6 Results

6.6.1 Participant demographics

472 high-school pupils were recruited from 5 schools across Scotland, spanning 4 different LEAs. Of those recruited, 456 provided usable data. As schools were recruited according to availability/willingness, it was not possible to obtain an even spread of urban/rural schools; instead, the sample consisted of 4 urban schools and 1 semi-rural. Participants' ages ranged between 11 years and 17 years, with a mean age of 14.98 years (SD = 1.09). 2 participants did not provide their age and 1 did not provide their gender. Table 6.1 illustrates the ages and genders of participants from each school. Participants reported living with a variety of family members; including parents, siblings, step-parents, step-siblings, grandparents, aunts, uncles, cousins and unspecified "family".

Table 6.1: Ages and genders of participants from each school

School	Gender	Age								
		11	12	13	14	15	16	17	Unknown	TOTAL
1	Males			5	32	12	15			64
(urban)	Females			10	22	7	26		1	66
	Both			15	54	19	41			130
2	Males			5	25					30
(urban)	Females			4	25					29
	Both			9	50					59
3	Males				8	1				9
(urban)	Females				32	2				34
	Both				40	3				43
4	Males					9	30			39
(urban)	Females					7	43	1		51
	Both					16	73	1		90
5	Males		4	25	24	21				74
(rural)	Females	1	5	17	21	14				58
	Unknown				1				1	2
	Both	1	9	42	46	35			1	134
TOTAL		1	9	66	189	73	114	1	3	456

6.6.2 Differences between perceived norms and reported norms[22] [23]

Thoughts of self-harm

[22] As was the case in Study 1, upon inspection of the data, it was decided that given the very low numbers of responses obtained for the reference groups "siblings" (the only group for which "not applicable" was an option in this sample) this group would be excluded from all analyses in order to avoid empty cells and make analyses more meaningful. In addition, given the sometimes extremely thin spread of responses across the range of response options, it was deemed appropriate to collapse responses into fewer categories (see Chapter 5).

[23] NB. A Bonferroni correction was applied for all post-hoc Wilcoxen signed-ranks tests so effects are reported at p = .0071428.

17.8% of the sample reported having had thoughts of self-harm at some point in their life. As can be seen from Figure 6.1, the majority of people believed that those close to them had never had thoughts of self-harm, but that more distal groups had had thoughts of self-harm at some point in their lives.

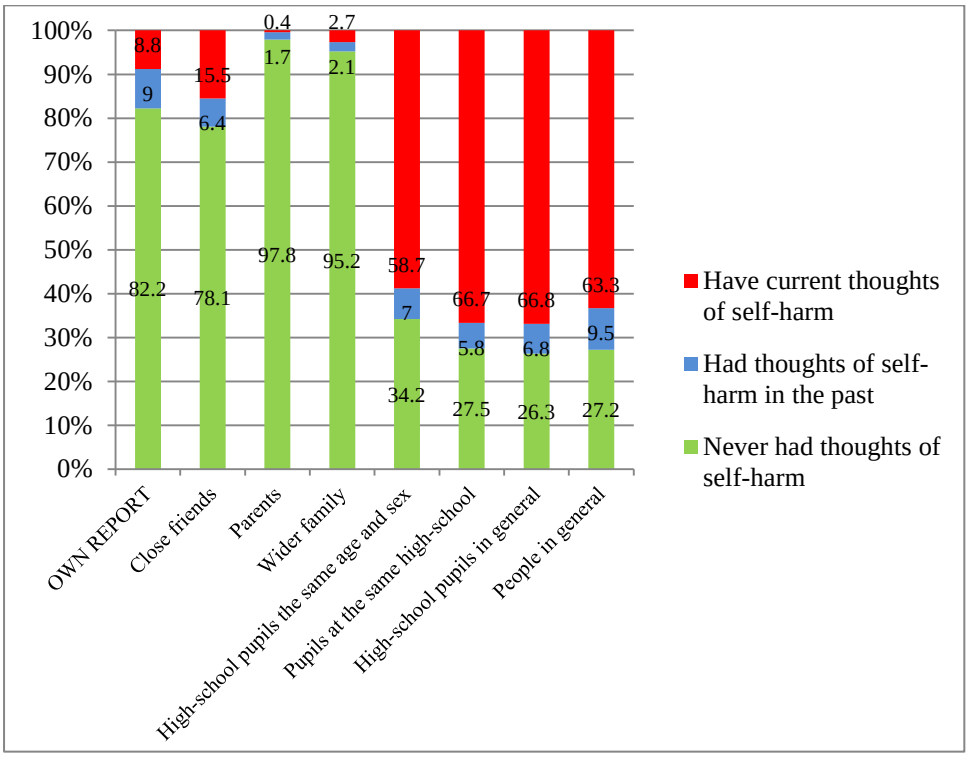

Figure 6.1: Reports of thoughts of self-harm alongside perceptions of other groups' thoughts of self-harm.

Friedman's ANOVA indicated that participants' perceptions of others' thoughts of self-harm significantly differed from their own reported thoughts of self-harm (X^2 (7) = 1402.044, p < .001). Post-hoc Wilcoxen signed-ranks tests indicated significant differences between reported thoughts of self-harm and perceptions of thoughts of self-harm in parents (T = 225.00, r = -.23) and extended families (T = 686.00, r = -.18), with both of these groups perceived as less likely to have thoughts of self-harm than participants reported themselves. Significant differences were also found between reported thoughts of self-harm and perceptions of thoughts of self-harm in close friends (T = 2003.00, r = -.09), high-school pupils of the same age and sex (T = 1105.50, r = -.46), high-school pupils attending the same school (T = 1511.00, r = -.49), high-school pupils in general (T = 1249.00, r = -.50), and people in general (T = 1293.00, r = -.49), with all of these groups perceived as more likely to have thoughts of self-harm than participants reported themselves.

Self-harm

12.7% of the sample reported having engaged in self-harm at some point in their life. Figure 6.2 illustrates that the majority of people believed that more proximal groups had never engaged in self-harm, but that more distal groups had engaged in self-harm at some point in their lives.

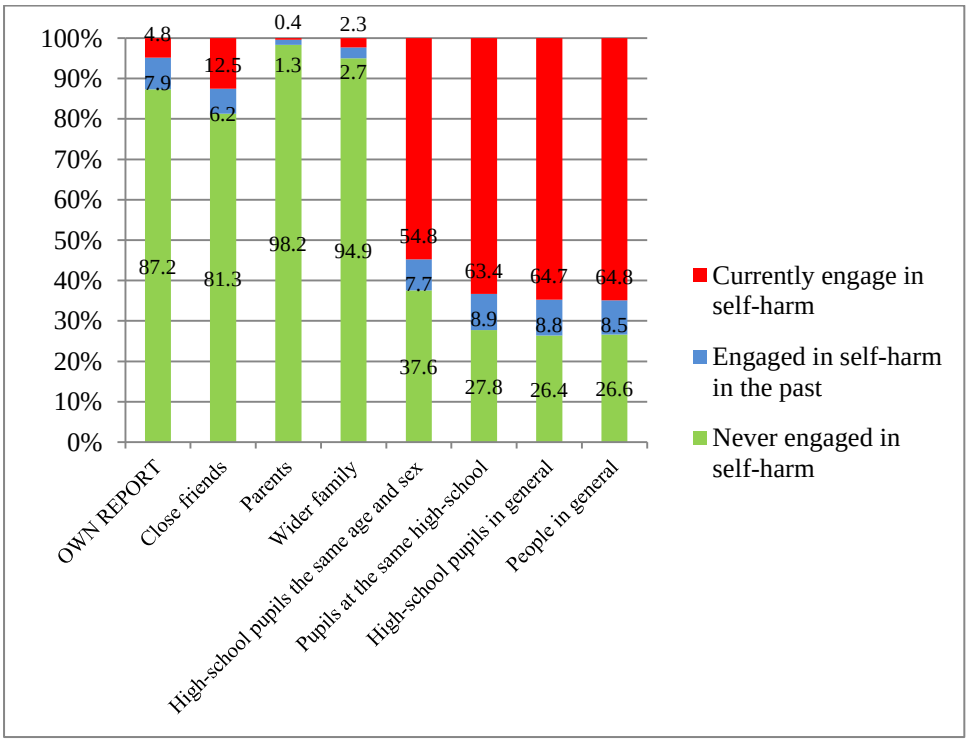

Figure 6.2: Reports of self-harm alongside perceptions of other groups' self-harm.

Participants' perceptions of others' engagement in self-harm significantly differed from their own reports of self-harm (X^2 (7) = 1440.991, p < .001). Post-hoc analyses identified that these differences existed between reported self-harm and perceptions of self-harm in parents (T = 153.50, r = -.20) and extended families (T = 541.00, r = -.13), with both of these groups perceived as less likely to engage in self-harm than participants reported themselves. Significant differences were also found between reported norms for self-harm and perceptions of self-harm in close friends (T = 1207.00, r = -.12), high-school pupils of the same age and sex (T = 817.50, r = -.47), high-school pupils attending the same school (T = 672.00, r = -.51), high-school pupils in general (T = 656.00, r = -.52), and people in general (T = 444.00, r = -.52), with all of these groups perceived as more likely to engage in self-harm than reported norms.

Thoughts of suicide

12.8% of the sample reported having had thoughts of suicide at some point in their life. As illustrated by Figure 6.3, the majority of people believed that those close to them had never had thoughts of suicide, whilst those from more distal groups had had thoughts of suicide at some point in their lives.

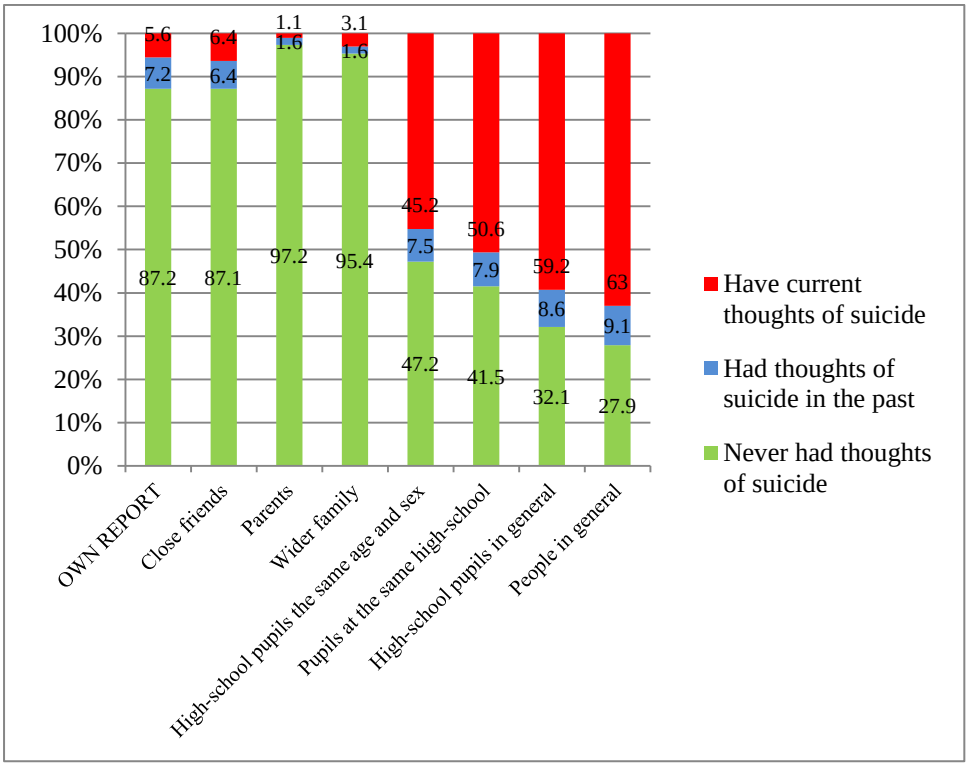

Figure 6.3: Reports of thoughts of suicide alongside perceptions of other groups' thoughts of suicide.

Participants' reported norms for thoughts of suicide differed significantly from their perceptions of others' thoughts of suicide (X^2 (7) = 1270.486, p < .001). Post-hoc analyses revealed that reported thoughts of suicide significantly differed from perceptions of thoughts of suicide in parents (T = 274.50, r = -.16) and extended families (T = 595.50, r = -.10), with both of these groups perceived as less likely to have thoughts of suicide than participants' reports. Significant differences were also identified between reported thoughts of suicide and perceptions of thoughts of suicide in high-school pupils of the same age and sex (T = 950.00, r = -.41), high-school pupils attending the same school (T = 1233.50, r = -.44), high-school pupils in general (T = 1193.00, r = -.48), and people in general (T = 1131.50, r = -.50), with all of these groups perceived as more likely to have thoughts of suicide than participants reported themselves. Close friends also tended towards being perceived as more

likely than participants reported to have thoughts of suicide, but this difference was not significant.

Suicide attempts

4.2% of the sample reported having made a suicide attempt at some point in their life. As demonstrated by Figure 6.4, the majority of people believed that proximal groups had never made a suicide attempt, and neither had some of the more distal groups which were most similar to them (e.g., high-school pupils the same age and sex and pupils at the same high-school). Most people believed however, that the most distant groups had made a suicide attempt at some point in their lives.

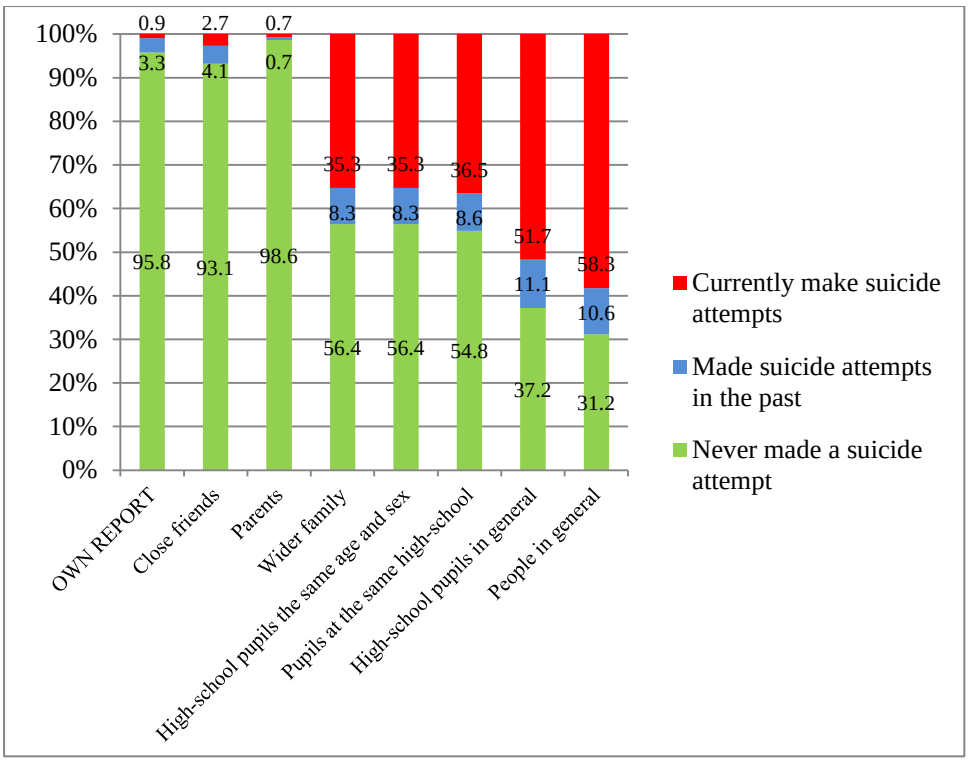

Figure 6.4: Reports of suicide attempts alongside perceptions of other groups' suicide attempts.

Participants' perceptions of others' suicide attempts significantly differed from reported norms for suicide attempts (X^2 (7) = 1184.282, $p < .001$). Significant differences were found to exist between reported norms for suicide attempts and perceptions of suicide attempts in high-school pupils of the same age and sex (T = 213.00, r = -.41), high-school pupils attending the same school (T = 234.00, r = -.42), high-school pupils in general (T = 113.50, r = -.50), and people in general (T = 80.50, r = -.53), with all of these groups perceived as

more likely than reported norms, to make suicide attempts. Close friends and extended family were also perceived as somewhat more likely to make suicide attempts than participants reported, although not significantly. Conversely, parents were perceived as less likely to attempt suicide, but this did not reach significance either.

Attitudes towards self-harm

Most of the sample (52.7%) reported believing that engaging in self-harm is completely wrong. As can be seen from Figure 6.5, the majority of people believed that those close to them also believed self-harm to be completely wrong, but that more distal groups tended to believe self-harm to be ok.

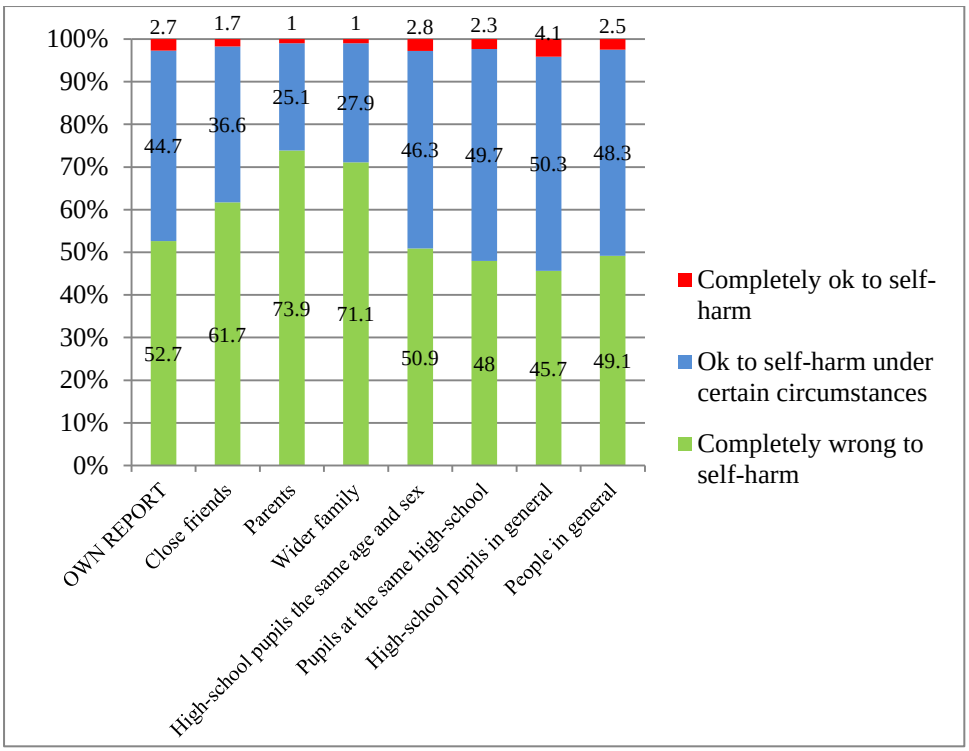

Figure 6.5: Reports of attitudes towards self-harm alongside perceptions of other groups' attitudes towards self-harm.

Participants' perceptions of others' approval of self-harm significantly differed from their own reported approval of self-harm (X^2 (7) = 275.138, p < .001). Post-hoc tests revealed that reported norms for approval of self-harm differed significantly from perceptions of the approval of self-harm in close friends (T = 1097.50, r = -.15), parents (T = 984.00, r = -.28) and extended families (T = 1084.00, r = -.23), with all of these groups perceived as less likely to approve of self-harm than reported norms. All other groups tended towards being

perceived as more likely to approve of self-harm than participants reported, although not significantly.

Attitudes towards suicide attempts

Most of the sample (57.0%) reported believing that making a suicide attempt is completely wrong. As illustrated in Figure 6.6, the majority of people believed that all other groups also believed making a suicide attempt to be wrong.

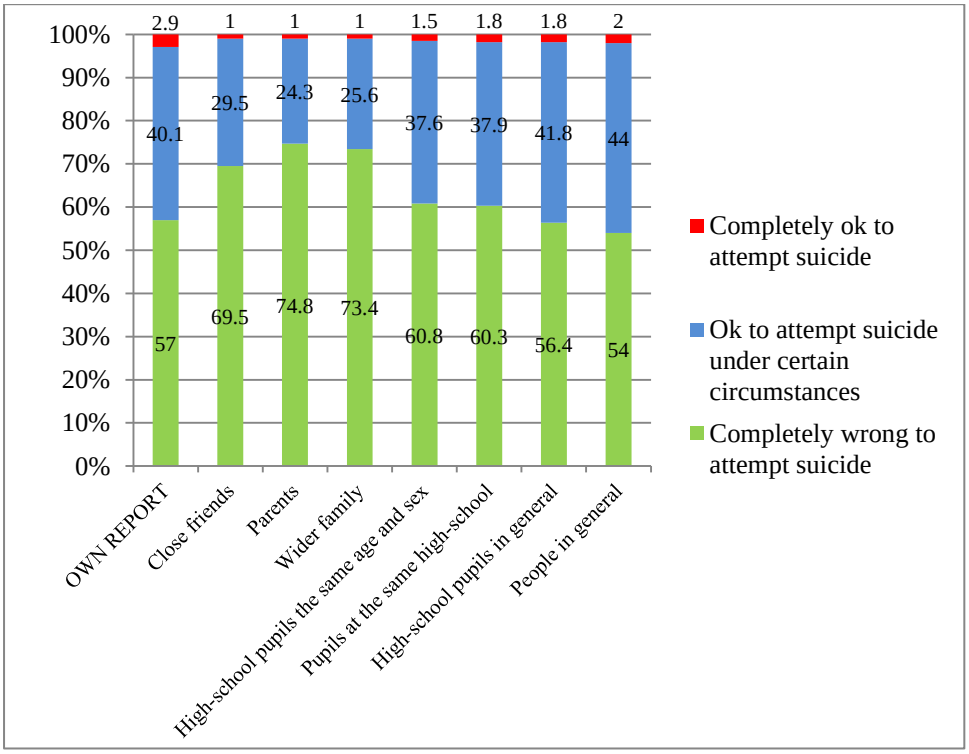

Figure 6.6: Reports of attitudes towards suicide attempts alongside perceptions of other groups' attitudes towards suicide attempts.

Participants' reported norms for approval of suicide attempts significantly differed from their perceptions of other groups' approval of suicide attempts (X^2 (7) = 190.845, p < .001). It was found that significant differences existed between reported approval of suicide attempts and perceptions of the approval of suicide attempts in close friends (T = 702.00, r = -.18), parents (T = 595.00, r = -.24) and extended families (T = 450.00, r = -.23), with all of these groups perceived as less likely to approve of suicide attempts than participants reported themselves. High-school pupils the same age and sex, pupils at the same high-school and high-school pupils in general were also perceived as slightly less likely than participants reported themselves to approve of suicide attempts, although these did not reach

significance, whilst people in general were perceived as somewhat more likely to approve of suicide attempts, but again, not significantly.

6.6.3 Factors associated with reported norms

For own reported thoughts of self-harm, own reported engagement in self-harm, and own reported attitudes towards self-harm, the predictor variables entered into the regression model were age, sex, perceptions of all reference groups' thoughts of self-harm, perceptions of all reference groups' self-harm and perceptions of all reference groups' attitudes towards self-harm (23 predictors). For own reported thoughts of suicide, own reported suicide attempts, and own reported attitudes towards suicide attempts, the predictor variables entered into the regression model were age, sex, perceptions of all reference groups' thoughts of suicide, perceptions of all reference groups' suicide attempts and perceptions of all reference groups' attitudes toward suicide attempts (23 predictors). Collinearity diagnostics were run to check for multicollinearity between variables within each model.

As discussed in Chapter 5, an appropriate rule of thumb for determining sample size to predictors ratios is "$N > 50 + 8m$" (where m is the number of predictors) for maximum model power, or "$N > 104 + m$", if one is more interested in the predictive power of individual variables (Green, 1991). Due to the large sample size in the current study, both of these rules are easily adhered to.

Thoughts of self-harm

Between 27.0 and 44.8% of the variance in reported thoughts of self-harm was explained by the regression model. Those who believed that their friends had thoughts of self-harm or engaged in self-harm or that their family members engaged in self-harm, were more likely to report having thoughts of self-harm themselves. The belief that pupils from the same school have thoughts of self-harm was associated with a decrease in reported thoughts of self-harm. Inspection of collinearity diagnostics indicated that there may be some multicollinearity, as some of the tolerance levels were < 0.1, and some VIFs were > 10 (Field, 2005). As discussed in Chapter 5, Field (2005) argues that the safest way to deal with multicollinearity is to keep the variables in the model, but to interpret the model with caution. Table 6.1 illustrates the odds ratios and the 95% confidence intervals for factors significantly associated with thoughts of self-harm.

Table 6.2: Factors associated with own reported thoughts of self-harm

	P-value	Odds ratio (OR)	95% confidence intervals for OR	
			Lower	Upper
Friends thoughts of self-harm	.044	1.492	1.011	2.201
Friends self-harm	.043	1.495	1.013	2.205
Family self-harm	.028	5.818	1.215	27.873
Pupils at the same school thoughts of self-harm	.028	0.509	0.279	0.929

Note: Model X^2 (23) = 103.373, $p < .001$. R^2 = .270 (Cox & Snell), .448 (Nagelkerke).

Self-harm

The regression model accounted for between 24.2 and 46.8% of the variance in reported self-harm. Males were almost four times less likely than females to report engaging in self-harm. Those who believed that their friends had thoughts of self-harm or that high-school pupils the same sex as them had thoughts of self-harm were more likely to report self-harming, and believing that family members engaged in self-harm was also positively associated with own reports of self-harm, but this was just shy of significance. Believing that pupils at the same school had thoughts of self-harm was negatively associated with reported self-harm. As the variables in the current model are identical to those in the previous, multicollinearity was again indicated between some variables, so the model should be interpreted with caution. Table 6.3 illustrates the odds ratios and the 95% confidence intervals for factors significantly associated with self-harm.

Table 6.3: Factors associated with own reported self-harm

	P-value	Odds ratio (OR)	95% confidence intervals for OR	
			Lower	Upper
Sex (male)	.017	0.229	0.068	0.770
Friends thoughts of self-harm	.017	1.760	1.106	2.800
Pupils the same age and sex thoughts of self-harm	.034	2.252	1.063	4.770
Pupils at the same school thoughts of	.045	0.504	0.258	0.983

self-harm

Note: Model X^2 (23) = 90.943, p < .001. R^2 = .242 (Cox & Snell), .468 (Nagelkerke).

Thoughts of suicide

Between 19.4 and 37.8% of the variance in reported thoughts of self-harm was explained by the regression model. Those who believed that their close friends had thoughts of suicide were over three times more likely to report thoughts of suicide, whilst believing that friends had made suicide attempts was associated with a decrease in own thoughts of suicide. Inspection of collinearity diagnostics indicated that all tolerance levels were > 0.1, all variance inflation factors (VIF) were < 10 for all variables, and no eigenvalue was much larger than the others, such that serious multicollinearity was not evident (Field, 2005). Table 6.4 illustrates the odds ratios and the 95% confidence intervals for factors significantly associated with thoughts of suicide.

Table 6.4: Factors associated with own reported thoughts of suicide

	P-value	Odds ratio (OR)	95% confidence intervals for OR	
			Lower	Upper
Friends thoughts of suicide	.000	3.388	1.926	5.959
Friends suicide attempts	.006	0.312	0.136	0.717

Note: Model X^2 (23) = 70.331, p < .001. R^2 = .194 (Cox & Snell), .378 (Nagelkerke).

Suicide attempts

The only significant predictor of reported suicide attempts was perceptions of close friends' attitudes towards suicide attempts, which was positively associated with a massive increased likelihood of reporting suicide attempts, but the overall model was not significant. As the variables in the current model are identical to those in the previous, no multicollinearity was indicated between variables. Table 6.5 illustrates the odds ratios and the 95% confidence intervals for factors significantly associated with suicide attempts.

Table 6.5: Factors associated with own reported suicide attempts

	P-value	Odds ratio (OR)	95% confidence intervals for OR	
			Lower	Upper
Friends' attitudes towards suicide attempts	.029	29.858	1.410	632.265

Note: Model X^2 (23) = 26.454, p = .280. R^2 = .078 (Cox & Snell), .325 (Nagelkerke).

Attitudes towards self-harm

The regression model explained between 38.3 and 51.2% of the variance in reported attitudes towards self-harm. Males were less than half as likely as females to report positive or approving attitudes towards self-harm. Believing that one's friends hold positive attitudes towards self-harm was associated with a more than four times increased likelihood of reporting positive attitudes, and those who believed that people in general held positive attitudes towards self-harm were more than three times more likely to report positive attitudes. Inspection of collinearity diagnostics indicated that again there may be some multicollinearity between variables, so the model should be interpreted with caution. As stated in Chapter 5, it is arguably safer not to remove variables which exhibit collinearity as this can elicit other problems (Field, 2005). Table 6.6 illustrates the odds ratios and the 95% confidence intervals for factors significantly associated with attitudes towards self-harm.

Table 6.6: Factors associated with own reported attitudes towards self-harm

	P-value	Odds ratio (OR)	95% confidence intervals for OR	
			Lower	Upper
Sex (male)	.010	0.428	0.225	0.814
Friends attitudes towards self-harm	.003	4.363	1.650	11.540
People in general attitudes towards self-harm	.011	3.494	1.336	9.138

Note: Model X^2 (23) = 158.528, p < .001. R^2 = .383 (Cox & Snell), .512 (Nagelkerke).

Attitudes towards suicide attempts

Between 46.5 and 62.5% of the variance in reported attitudes towards suicide attempts was accounted for by the regression model. Males were about one third as likely as females to

report positive or approving attitudes towards suicide attempts. Those who believed that pupils the same age and sex as them had thoughts of suicide, and those who believed that their friends or their family held positive attitudes towards suicide attempts, were more likely to report positive attitudes towards suicide attempts. No multicollinearity was indicated. Table 6.7 illustrates the odds ratios and the 95% confidence intervals for factors significantly associated with attitudes towards suicide attempts.

Table 6.7: Factors associated with own reported attitudes towards suicide attempts

	P-value	Odds ratio (OR)	95% confidence intervals for OR	
			Lower	Upper
Sex (male)	.004	0.345	0.169	0.706
Pupils the same age and sex thoughts of suicide	.037	1.590	1.029	2.458
Friends attitudes towards suicide attempts	.003	6.208	1.853	20.797
Family attitudes towards suicide attempts	.001	29.308	3.895	220.554

Note: Model X^2 (23) = 203.707, $p < .001$. R^2 = .465 (Cox & Snell), .625 (Nagelkerke).

6.6.4 Beliefs about others' influence over one's own behaviour

If participants had ever engaged in a behaviour, they were asked whether at the time that they first did so, they had known or suspected that anyone else they knew had also done so, and if so, whether or not they believed this had influenced them. These items were not relevant to most participants (as most had not engaged in the behaviours themselves), and of those to whom they were relevant, many did not respond. As respondents to these items were so few, inferential analyses were unfeasible, but descriptive data is reported below.

Self-harm

Of the 73 who responded, 30.1% reported knowing someone who had self-harmed when they first did so, and 40% reported suspecting that someone had. 20.7% believed that others' behaviour had influenced their self-harming, whilst 79.3% believed that it had not. The most

commonly cited group reported to have previously engaged in those behaviours when the individual first did so were friends, followed by schoolmates. Other reported groups included parents, siblings and extended family.

Suicide attempts

Of the 36 who responded, 27.8% reported that they knew someone else who had attempted suicide when they first did so, and 7.4% reported suspecting that someone had done so. 11.1% believed that others' behaviour had influenced their attempting suicide, while 88.9% believed it had not. Friends were the most commonly reported group to have made suicide attempts when the individual first did so, following by schoolmates.

6.7 Discussion

As was the case in Study 1 (Chapter 5), the broad aim of the current study was to explore whether discrepancies exist between the perceived and reported norms around SSHBs, and whether perceptions predict attitudes or behaviour. Results again partially supported the hypotheses, but some differences were observed in comparison to previous findings within social norms research. Again, significant discrepancies were observed for all four behavioural outcome variables (thoughts of self-harm, self-harm, thoughts of suicide and suicide attempts) and for both attitudinal outcome variables (attitudes towards self-harm and attitudes towards suicide attempts) between self-reports and perceived norms, but as was the case in Study 1, such discrepancies were only significant for certain reference groups and were not always in the predicted direction. In comparison to Study 1, descriptive norms were more often predictive of behaviour and attitudes than injunctive norms, although injunctive norms were also predictive at times; again, with significant predictors varying between models. In further contrast to Study 1, the majority of participants in the current sample did not report knowing or suspecting that others had engaged in SSHBs when they first did so themselves, although similar to the participants in Study 1, the majority of those who did reported that such exposure had had no influence on their own behaviour. A number of other similarities and differences between the current findings and those of Study 1 are discussed further below.

17.8% of the current sample reported having had thoughts of suicide at some point in their life, 12.7% reported having actually engaged in self-harm, 12.8% reported having had thoughts of suicide, and 4.2% reported having made a suicide attempt at some point in their

life. These figures are lower than those observed for the slightly older sample studied in Study 1 (which were particularly high, as discussed in Chapter 5), but similar to those reported for other Scottish adolescent samples (e.g., O'Connor, Rasmussen, Miles & Hawton, 2009). Also in accordance with previous research (e.g., O'Connor et al., 2009) was the observation that sex was associated with self-harm, with males far less likely to report engaging in self-harm than females. In addition, sex was further associated with attitudes towards self-harm, with females holding more positive attitudes than males. This is perhaps unsurprising, if one considers that in many circumstances, attitude is believed to play a role in guiding behaviour (e.g., Fazio, 1990). However, contrary to previous research (e.g., Nock, Borges, Bromet, Cha, Kessler & Lee, 2008), females in the current sample were no more likely to report having attempted suicide, but they were almost three times more likely than males to report approval of suicide attempts. This may represent an early acceptance of such behaviour in a young sample, which may lead to behavioural enactment as they mature – Nock et al. (2008) argue that group differences may only begin to manifest during mid-adolescence, and a large proportion of the current sample were early adolescents (58.6% aged 11-14 years). It was not possible to determine whether the well-established opposite sex-related patterns for suicide deaths would be observed within the current sample (i.e. that males are more likely than females to die by suicide; e.g., Scottish Public Health Observatory, 2014), as suicide deaths could obviously not be measured using the current methodology.

6.7.1 Interpretation of the data regarding hypothesis (i)

Hypothesis (i) predicted that there would be a discrepancy between high-school pupils' reported SSHB and their perceptions of normative behaviour, with others perceived as more likely to engage in SSHB than they report doing themselves. This was partially supported. As was the case in Study 1, for all four behavioural outcome variables (thoughts of self-harm, self-harm, thoughts of suicide, and suicide attempts) there were significant discrepancies between participants' self-reports and their normative perceptions, as predicted, but once again, the direction of the discrepancy was not always consistent with what was expected. Patterns observed in the current study were at times similar to those observed in Study 1, with some minor differences. Again, there was an overall tendency for participants to believe that proximal groups were less likely to engage in SSHBs than self-reported norms, but that distal groups were more likely to do so. Parents and family members were perceived as less likely than reported norms to have thoughts of self-harm, to engage in self-harm, or to have thoughts of suicide, whilst more distal groups were

perceived as more likely to do so. Interestingly, and unlike the findings of Study 1, close friends were perceived more similarly to distal groups in the current study; with participants reporting that close friends were more likely to engage in SSHBs than reported norms. As was the case in Study 1, suicide attempts were perceived slightly differently to the other behaviours, with all groups (except parents) perceived as more likely to engage in suicide attempts than self-reported norms – although these discrepancies were only significant for distal group norms. It is interesting that in both samples, parents were perceived as different to all other groups and uniquely immune to SSHBs (relatively speaking). This may be accounted for by the fact that at most people only have two parents, which necessarily reduces the likelihood of any behaviour occurring within that group compared to larger groups, or it may represent an extended optimism bias, as described in Chapter 5.

Potential explanations for the differences in perceptions between proximal group norms and distal group norms, and between suicide attempts and the other behaviours, were previously discussed in Chapter 5, and have not been reiterated here as they are assumed to be similar for the current population. The difference observed between the two samples in the way that close friends' norms are perceived however, is worth consideration. That undergraduates tended to perceive close friends comparably to parents and family members, whilst high-school pupils perceived them as more similar to other pupils or people in general, may be representative of a developmental change in the nature of friendships as individuals mature. For example, age-related differences have been documented in the perceived supportiveness of friendships, with the support of friends becoming increasingly important between early adolescence and early adulthood (Furman & Buhrmester, 1992). In addition, Sharabany, Gershoni and Hofman (1981) reported an increase in the intimacy of same-sex friendships during adolescence, with a growing focus on sensitivity to others and communication of thoughts and feelings, and a simultaneous increase in the development of opposite-sex friendships, which the authors predict will continue to vary into adulthood. These developmental changes may account for differences in perceptions of friends between adolescents and undergraduates, in that the older sample have closer, more intimate relationships with their friends, rendering them conceptually more similar to family members, whilst the younger sample may not perceive those with whom they associate as particularly significant or unique in comparison to unfamiliar peers. Additionally, the older sample may be more privy than the younger sample to the *actual* thoughts, feelings and behaviour of their close friends such that the observed difference between the samples merely represents differential accuracy in perception.

6.7.2 Interpretation of the data regarding hypothesis (ii)

Hypothesis (ii) predicted that there would be a discrepancy between high-school pupils' reported attitudes towards SSHB and their perceptions of normative attitudes, with others perceived as more likely to approve of SSHB than they report doing themselves. This was also partially supported. As was the case in Study 1, for both attitudinal outcome variables (attitudes towards self-harm and attitudes towards suicide attempts), there were significant discrepancies between perceived and reported norms, as predicted. However, these discrepancies were not always in the expected direction, with proximal groups perceived as significantly less likely than reported norms to approve of both self-harm and suicide attempts, and most distal groups perceived as somewhat less likely to approve of suicide attempts (though not significantly). Contrary to the findings in Study 1, distal groups tended to be perceived as more likely than reported norms to approve of self-harm (though again, not significantly), and people in general only were perceived as slightly more likely to approve of suicide attempts (again, not significantly).

The finding that distal groups tended towards being perceived as more likely to approve of self-harm may be indicative of a belief that approval is perceived to be a negative feature by this age-group, reflecting similar results to those found in previous social norms research (i.e. that individuals believe that others behave in worse ways than they do themselves – see Chapter 3). The distinction between proximal and distal groups in this regard may reflect the in-group/out-group biases discussed in Chapter 5, with those perceived as part of participants' in-group (e.g., friends, family) perceived as behaving differently (better) to those in perceived out-groups (e.g., people not known to the individual). As is discussed in Chapter 7, perceptions of the "rightness" or "wrongness" of SSHBs may vary across individuals and across the spectrum of behaviours, so it is possible that the current sample made differential judgements of self-harm compared to suicide attempts.

That people in general only were perceived as (non-significantly) more likely to approve of suicide attempts may be indicative of a perceived distinction between the other reference groups about whom participants were questioned and the rest of society (in that people participants know and people reasonably similar to them are not generally perceived as representative of the general population), but this seems unlikely given that this was the only variable for which this difference was evident, and is an idea which contradicts other suggested explanations for the current findings. Regardless, the non-significance of both this finding and the above finding regarding attitudes towards self-harm, renders them uncertain

and necessitates that caution is employed in their interpretation. In comparison to the rest of the study, these exceptions to the generally observed patterns are therefore not considered to be of particular consequence.

For perceived injunctive norms, the abovementioned (see section 6.7.1) distinction between high-school pupils' and undergraduates' perception of close friends relative to other reference groups, was absent, with friends' approval of suicide and self-harm perceived as more similar to that of other proximal groups (in that self-other discrepancies were similarly significant for those groups but not for others). It is unclear why this might be, but might be accounted for by intrinsic differences between the way that behaviour and attitudes are perceived. As was discussed in Chapter 3, injunctive norms may be more influential over behaviour than descriptive norms on account of the importance of shared attitudes and beliefs in maintaining close relationships (e.g., Larimer, Turner, Mallett & Geisner, 2004). Whilst participants in the current sample may have believed that their friends behaved differently to themselves and to others close to them (such as their family members), they might nevertheless have believed that they at least held similar attitudes. However, as perceptions of *all* groups' attitudes followed the same pattern, it is arguably less notable than the findings for descriptive norms anyway. Nevertheless, the significance of close friends as a reference group is further highlighted in the following section (section 6.7.3).

6.7.3 Interpretation of the data regarding hypothesis (iii)

Hypothesis (iii) predicted that high-school pupils with higher perceived norms for SSHB would be more likely to engage in or approve of those behaviours themselves, and SSHB would be associated with age and gender. Again, this was partially supported, in that significant predictor models were generated for five out of the six outcome variables (thoughts of self-harm, self-harm, thoughts of suicide, attitudes towards self-harm and attitudes towards suicide attempts), and as was the case with Study 1, each model had a number of significant predictors (including at least one close friend-related variable for each model). As was also the case with Study 1, the regression models generated accounted for a substantial proportion of the variance in the independent variables (e.g., as much as 62.5% in the case of attitudes towards suicide attempts). As has been the case throughout this and the previous study though, associations with perceived norms were not always in the predicted direction. As mentioned above, sex predicted some, but not all, of the expected variables, but age was not associated with any. Descriptive norms tended to more often predict self-reported norms (10 significant behavioural predictors) than did injunctive norms (5

significant attitudinal predictors), in comparison to Study 1. Generally speaking, perceived proximal group norms were more often positively than negatively associated with reported norms, whilst distal group norms were roughly as equally likely to be positively associated with reported norms as negatively. Aside from these features, there was a lack of clear, discernible patterns in the range of variables which significantly predicted outcomes.

A potential explanation for the lack of clear pattern observed with regard to predictor variables in comparison to the older sample is that as adolescents represent a group which has relatively recently become increasingly prone to social influence, with the strength and source of social influences fluctuating and shifting throughout the course of adolescence, the sources that exert the most influence over their behaviour and attitudes may not be uniform in such a sample. As discussed in Chapter 2 and in section 6.7.1, above, different types of relationships emerge during adolescence, and existing relationships undergo changes; including the significance placed on different relationships and the amount of time spent with different others (e.g., Furman & Buhrmester, 1992; Sharabany, Gershoni & Hofman, 1981). These social vicissitudes may encompass alterations in the extent to which individuals are influenced by different people in their social environment, and changes may occur at different rates for different individuals, such that an adolescent sample displays no coherent pattern of exerted influence. As mentioned in section 6.7.1, the importance of different relationships varies as a function of age, and given that a number of factors can influence the rate at which adolescents progress through various areas of development (e.g., Steinberg & Morris, 2001), it seems likely that social development should be no exception, such that the current (or indeed any) adolescent sample may represent a highly heterogeneous group. This is in contrast to student samples, who, as mentioned previously (see Chapter 4), may represent a more homogenous group (Peterson, 2001).

One clear pattern that did emerge was that the perceived norms of close friends were particularly important in predicting high-school pupils' reported norms, with at least one close friends-related norm associated with each of the six outcome variables. Perceptions of friends' thoughts of self-harm were positively associated with both reported thoughts of self-harm and self-harm, perceptions of friends' thoughts of suicide and suicide attempts were positively associated with reported thoughts of suicide and suicide attempts, respectively, and perceptions of friends' attitudes towards self-harm and suicide attempts were positively associated with reported attitudes towards self-harm and suicide attempts, respectively. These findings suggest that close friends may be particularly influential in increasing individuals' SSHB and attitudes, supporting the findings of the previously reported literature

review (Chapter 2), and of social norms research in general (see Chapter 3). As the current study was cross-sectional in nature however, it is impossible to confirm causal direction, and it may be that individuals who engage in these behaviours or hold approving attitudes choose to associate with others who also do so, or that those individuals are just more likely to assume that their friends are engaging in similar behaviours and hold similar attitudes.

Interestingly, the only friend-related predictor variable with which reported behaviour was negatively associated was perceived suicide attempts. It could be argued that this finding supports one of the arguments made in the literature review regarding a potential protective effect of exposure to suicide (see Chapter 2). If participants in the current study had born witness to a close friend of theirs attempting suicide, the aftermath and associated upset may have rendered them less likely to engage in such behaviour themselves. Having said this, the review did not find such an inverse association with suicide attempts; only suicide deaths. An alternative explanation is that those participants who engage in SSHB considered themselves somehow unique or different to others, and are subsequently less likely to report that their friends might also attempt suicide. Elkind (1967) posited that adolescents employ a "personal fable", in which they perceive themselves as invulnerable, omnipotent and unique. Adolescents with depressive symptoms (which are associated with suicidal behaviour; e.g. Cavanagh, Carson, Sharpe & Lawrie, 2003 – see Chapter 1) have been shown to score particularly highly on measures of egocentrism (e.g., Baron, 1986), and personal uniqueness in particular has shown strong associations with depression and suicidal ideation (Aalsma, Lapsley & Flannery, 2006), so those who reported a history of suicidal behaviour in the current sample may be more likely to employ an inward focus, effectively disregarding the existence of similar experiences in others. The fact that such an inverse relationship was only observed for friends' suicide attempts may be associated with the perceived likelihood that one would know if a close friend had attempted suicide (as opposed to knowing about their thoughts of suicide, for example); that is, if one does not know about it, then one may believe it is unlikely to have happened.

The finding that perceived descriptive norms more often predicted reported norms than did injunctive norms (with a ratio of 2:1) is contrary to both the undergraduate study (Study 1 – Chapter 5), and previous social norms research in general. Injunctive norms are generally accepted to be stronger predictors of reported behaviour (e.g., Borsari & Carey, 2003; see Chapter 3), so it is surprising that they were only half as often predictive of reported norms as were descriptive norms, in the current sample. There are a number of possible reasons for this. Firstly, given that a number of relationships increase in intimacy and perceived

significance as a function of age (as described above), the mutual holding of shared values deemed so important in the maintenance of successful relationships in older individuals, may be considered less so in adolescents, such that the (perceived) beliefs and attitudes of those around them are less influential in shaping their own behaviour or attitudes. Secondly, given that adolescents may be particularly prone to egocentrism (see above), making inferences about others' attitudes and beliefs may simply not be of interest to them, whilst actual behaviours are perhaps more visible and salient, and require less outward-focused thought. Finally, a relative lack of knowledge of other people on account of adolescents' age and likely inexperience may render them unconfident in their assumptions about other people's thoughts and attitudes, such that they are less likely to use them as a source of information or guidance. A number of participants in the current sample left items on the survey blank – particularly those items referring to more distal, abstract groups – and many wrote comments such as "no idea" or "I don't know" next to items. During data collection it was also noted that a number of participants verbally expressed concern about their lack of knowledge of many of the answers (despite the researcher's specific assurance at the outset and throughout that it was their best guess that was of interest). This perceived lack of expertise may lead adolescents to rely more heavily on more overt, observable social information (i.e. descriptive norms). Although this finding is at odds with the general trends observed within the social norms literature, adolescents' perceived descriptive norms have previously, on occasion, been found to be more predictive of reported norms than were perceived injunctive norms in other health-related behavioural domains (e.g., substance use; Eisenberg, Toumbourou, Catalano & Hemphill, 2014; healthy eating; Lally, Bartle & Wardle, 2011).

Whilst many of the current findings differed in comparison to Study 1, some were identical. For example, undergraduates' perceptions of students of the same sex having thoughts of self-harm were associated with a more than doubled chance of reporting self-harm, whilst high-school pupils' perceptions of pupils of the same age and sex having thoughts of self-harm were also associated with a more than doubled chance of reporting self-harm. Additionally, undergraduates' perceptions that their close friends had thoughts of suicide were associated with a more than three times increase in reported thoughts of suicide, whilst high-school pupils' perceptions of thoughts of suicide in their close friends were also associated with a more than three times increase in reported thoughts of suicide. Finally, close friends' attitudes towards suicide attempts were associated with an almost twenty-times increase in reported approval of suicide attempts in undergraduates, and an almost thirty times increase in reported approval in high-school pupils. These two comparable sets

of findings suggest that despite the age-related changes which appear to occur in the way that close friendships are experienced between adolescence and young adulthood, the perception that close friends have thoughts of suicide continues to increase one's own risk of suicide, and one's attitude towards suicide attempts continues to be shaped by that of one's close friends (or alternatively, one's own thoughts of or attitudes towards suicide continue to increase one's likelihood of believing close friends have similar thoughts and attitudes). Such similarities in findings suggest that despite the occurrence of a number of changes between adolescence and young adulthood, some similar processes may still be at work within both samples.

In addition to the differences already mentioned, the current sample differed from the undergraduate sample in a number of other ways. Whilst the perceived norms of other students were somewhat comparable to those of proximal groups in their positive associations with reported norms in the undergraduate sample, high-school pupils' perceptions of the norms of other high-school pupils were less consistent; sometimes showing positive associations with reported norms, and sometimes negative. It was argued in Chapter 5 that the often predictive effect of other student norms on undergraduate reported norms may be explained by their identification with other students. That the current findings suggest this was not necessarily the case within the high-school sample may be accounted for by the aforementioned likely heterogeneity of such a sample, or may reflect changes in social identity during adolescence (Tanti, Stukas, Halloran & Foddy, 2011), or most likely, a combination of the two. The variables which showed the strongest associations also differed slightly from those identified in the undergraduate sample. For high-school pupils, perceiving close friends to hold positive attitudes towards suicide attempts was associated with an almost thirty times increase in reported suicide attempts, and perceiving family members to have positive attitudes towards suicide attempts was associated with an almost thirty times increase in reported positive attitudes. Again, it is unclear exactly why these variables in particular should be so strongly associated, especially given the already identified ambiguities within close friendships in this sample, but it may be indicative of a heightened desire for approval from friends and family in adolescents. The need for peer approval during adolescence has been highlighted previously (e.g., Juvonen & Cadigan, 2002) but the literature suggests that the approval of adults is less important at this age, which is contradicted by some of the current findings. However, the current findings are notably lacking in significantly predictive parental norms (compared to the undergraduate sample), so perhaps adult norms are in fact relatively unimportant to the current sample.

6.7.4 Interpretation of data regarding perceptions of others' influence over one's own behaviour

Although not associated with a formal hypothesis, participants who had reported engaging in SSHBs themselves were asked whether, when they first did so, they had known or suspected that anyone they knew had done so, and if so, whether they thought this had influenced their behaviour. As was the case in Study 1, a low response rate for these items rendered inferential analyses unfeasible, so findings are reported at a descriptive level only. Unlike the undergraduate sample in Study 1, the majority of the current sample did not report knowing or suspecting that someone they knew had engaged in SSHB when they first did so themselves, but as was the case in Study 1, of those who did, the majority reported believing that it had not influenced their own behaviour. It is possible that on account of their being slightly older, the undergraduate sample in Study 1 had had more opportunity for exposure to those behaviours in people they know at some point in their lives, and had miscalculated that it had occurred *before* they first engaged in those behaviours themselves. Alternatively, the much higher than expected rate of SSHBs in the undergraduate sample may in fact have been related to the fact that they had perceived other people to have engaged in those behaviours when they first did so, and that the relatively low rate of such behaviours in the current sample was accounted for by their lack of (perceived or actual) exposure to such behaviours in others. Participants' belief that their behaviour was not influenced by that of others is consistent with the findings of Study 1 and previous research (see Chapter 5), and the probable reasons for this were discussed in Chapter 5 and will not be repeated here.

6.7.5 Strengths and limitations

Due to their methodological similarities, the current study shares many of the strengths and limitations of Study 1. Similar strengths include the novelty of the study and the large sample size, and similar limitations include challenges associated with the wording of the survey instruments, issues around measuring responses for particular reference groups which were not relevant to all participants (e.g., siblings), and multicollinearity. In addition, some limitations specific to the current study should be taken into account when interpreting the findings. For example, issues were observed at the data collection stage, which may have impacted upon the reliability or accuracy of findings. A number of participants – particularly those in the younger school years – showed some confusion when completing the surveys, often asking for words or whole questions to be explained to them. It was also observed at the data entry stage that some participants seemed not to have fully understood the final

section of questions regarding whether or not they had known or suspected that anyone they knew had engaged in SSHBs when they first did so. Some of the responses given within this section were strange and did not seem to quite answer the question, suggesting that questions were not understood as intended. The survey instrument was not piloted in an adolescent sample (only an older student sample), so although some of the wording was altered slightly for age-appropriateness, it seems that for some participants, the wording was not easily-comprehensible. Conducting a similar pilot study to that conducted within Study 1 (Chapter 5), in which participants could highlight items or words that were not clear, may have helped to assuage this issue.

Also noted during data collection (and somewhat confirmed at data entry) was that some participants were not fully focused on completing their surveys, or were perhaps not completing them honestly and accurately. Despite the researcher's request that surveys were completed individually and without discussion, a minority of participants appeared to complete them as a group and in some cases simply moved down each page ticking the same box for each item (without necessarily even reading the question). Although anonymous, surveys were collected in the order in which participants sat during completion, so that surveys completed by people sitting together were kept together, and their data were later entered sequentially. Where groups of surveys were noted to be identical to each other and uniform in their responses, their data was excluded from analyses in an effort to minimise any potential bias. Fortunately, the sample size was sufficiently large that this did not present a major issue. It is possible however, that other instances of participants employing similar methods may have been missed, and unreliable data may have been inadvertently included in the survey. It has previously been noted that data collected from adolescents may be somewhat prone to error (e.g., Frank, 1997). Ensuring that participants sat separately would have guaranteed that surveys were not completed in groups, but it is of course unfortunately impossible to ensure participants complete measures honestly, as is the case in any research employing self-report methodology. Despite the above issues however, the large sample size meant that even if some participants were unable to answer some questions, and even though it was necessary to remove some cases from analyses, sufficient data was still collected to perform meaningful analyses in most areas.

As discussed in Chapter 2, there are a number of potential limitations that are inherent to any school-based research, and the current study is no exception. Participant recruitment is reliant on pupils' attendance at school on the day of data collection, and those pupils who are currently experiencing adversity or mental ill-health for example (and may therefore be more

prone to SSHB), may be less likely to be present at data collection (e.g., Berg, 1992). Additionally, parental assent was required for all participants under the age of sixteen, and those families who have experienced issues related to those covered in the current study may have opted not to allow their adolescent to participate, perhaps through fear of causing mental distress. In particular, the use of an active, opt-in parental assent process (as opposed to a passive, opt-out process) may have further impacted upon the sample. Research suggests that children whose parents provide active (compared to passive) consent may represent a more socially advantaged group (Anderman, Cheadle, Curry, Diehr, Shultz & Wagner, 1995) and that active consent procedures result in lower rates of inclusion of children who engage in health-risk behaviours (Unger, Gallagher, Palmer, Baezconde-Garbanati, Trinidad, Cen & Johnson, 2004), such that high-risk children may be underrepresented through the use of such a consent process (Esbensen, Hughes-Miller, Taylor, He & Freng, 1999). The use of active consent in the current study may therefore have resulted in reduced representativeness of the sample, and underestimation of the prevalence of those with relevant experiences. Due to the nature of the study though, ethical approval would have been unlikely to be awarded without the use of active assent so any potential biases which resulted could not have been avoided. Despite these unavoidable challenges, it is believed that the current study represents an original and informative attempt at exploring the social norms of SSHBs within an adolescent population. In addition to providing a novel contribution to the literature, the current study was useful in identifying issues for consideration when undertaking similar research in the future, as well as identifying a number of areas for further research.

6.7.6 Future research directions

As was noted to be the case in reference to Study 1 (Chapter 5), the current study further identifies the need for a better understanding of how participants view SSHBs (in terms of "rightness" or "wrongness", for example), to help determine whether the observed differences between the current findings and previous social norms findings can be accounted for by inherent differences in the current behaviours of interest in comparison to previously studied behaviours. Study 3 (Chapter 7) aims to address this issue within an undergraduate population, but doing so within a high-school population as well was unfortunately beyond the scope of the current thesis. As was also noted with reference to Study 1, an understanding of how the different reference groups about which participants were questioned would further help to explain the current findings in terms of the predictive power of each group's norms over reported norms.

A number of relatively minor, anecdotal points were noted throughout the conduct of this study, exploration of which would arguably provide additional insights regarding the aims of the current research, and make for interesting future research endeavours. For example, several participants provided unprompted written comments next to tick-box style items on their surveys, including statements alluding to disbelief in peers' claims that they engage in self-harm, and expressing beliefs around the reasons behind peers' perceived self-harm (e.g. to get attention). Research investigating these ideas in more depth might help to further interpret the current findings. A minority of participants also offered comments pertaining to the pointlessness of the survey, perhaps indicating that for them, such issues are of negligible consequence. Inquiry into the perceived significance of such issues within adolescents' social context may provide further indications of perceived norms, and help to inform the development of future intervention and education strategies.

Finally, further investigation into some of the differences between the current findings and those of Study 1 would also be beneficial. Features worth further examination include the apparent age-related shift in the predictive power of descriptive norms relative to injunctive norms, and the suggested age-dependent increase in the importance of adult norms in predicting reported norms. Disproportionately low numbers of participants of certain ages (i.e. under 13s and over 17s) meant that it was not possible to fully explore age-related trends in the current sample, so further investigation within a more evenly-distributed range of ages would be useful. The differences observed around close friends' norms in particular, would benefit from clarification, particularly given that close friends' norms appear to be especially important in predicting reported norms in the current sample. In addition, some elucidation around at what age the observed changes occur, or whether a gradual shift takes place, would be interesting. Ideally, a longitudinal study might be employed, which could track the developmental trajectory of friendships and the associated relationships between perceived and reported norms. Consideration of the predictive power of different reference groups and its variation through maturation would be important in the design of any social norms interventions which were to be developed in the future (subject to indications of feasibility of such interventions, through further relevant research).

6.7.7 Conclusion

As was the case in Study 1 (Chapter 5), the current findings differed from those obtained from previous social norms research into other behaviours, and while some similarities were

observed, they also differed somewhat from the findings of Study 1. Discrepancies between perceived and reported norms appear consistent, but the finding that the direction of difference differed as a function of reference group suggests that different reference groups are perceived differently. This is further highlighted by the differential and often haphazard predictive power of perceptions of different groups' norms. Although cross-sectional in design (and therefore unable to confirm causal direction), a number of social norms appear predictive of adolescents' behaviour and attitudes, and the regression models generated appear to account for substantial proportions of the variance in reported behaviour and attitudes. The outlook is slightly more concerning for the current sample than the previous, in that close friends' norms seem to be particularly important in shaping reported norms, and this group is perceived to engage in SSHBs at much higher rates than reported norms (and other proximal groups). The fact that perceived norms are at all predictive of reported norms argues for the relevance of the social norms approach within the domain of SSHBs, in support of the findings of the previous study. Descriptive norms appear to be particularly important to this population, such that interventions which aim to utilise normative information to reduce SSHB in this group may do well to employ a particular focus on behaviour, relative to attitudes. A number of issues remain unclear, and further research is required to help explain in more detail some of the complicated current findings, and to continue to explore whether the social norms approach might be applicable to the reduction of SSHBs.

6.8 Summary

A social norms survey, designed to measure the reported and perceived norms of SSHBs and adapted for age-appropriateness from the survey instrument used in Study 1 (Chapter 5), was conducted with an adolescent sample, in a high-school setting. Perceived norms consistently differed from reported norms, but as was the case in Study 1, the direction of the discrepancy differed as a function of reference group, and the direction of self-other discrepancies followed a similar (but not identical) pattern to those observed in the undergraduate sample. Various perceived norms predicted reported norms, but significant predictors appeared somewhat arbitrary and showed no particular coherent pattern. Nonetheless, results suggest that perceived norms may be relevant in shaping adolescent behaviour and attitudes regarding SSHBs, providing further evidence that the social norms approach may be applicable to the reduction of such behaviours. Some of the current findings (as well as those of the previous study) remain unexplained however, due to

uncertainties surrounding how SSHBs are perceived, and around how participants perceive their own identities in relation to different reference groups, and these would benefit from further research. The following chapter aims to explore the beliefs behind normative perceptions, in an effort to further interpret the current findings.

Chapter 7

Study 3: Exploring the Factors which Contribute to Undergraduate Students' Normative Perceptions of Suicidal and Self-harming Behaviours

7.1 Abstract

Background

Studies 1 and 2 indicated that although perceived social norms may be implicated in an individual's SSHBs, patterns differ from those found in other health-damaging behaviours, and it was suggested that this may be because of inherent differences between SSHBs and other behaviours studied previously. In addition, there is a dearth of qualitative social norms research, generally, rendering more explanatory analysis difficult.

Method

Twenty-nine undergraduate students (mean age = 24.0 years) participated in semi-structured face-to-face interviews, which were audio-recorded and transcribed verbatim. Data was coded and themes identified using NVivo software, employing data-driven thematic analytic techniques.

Results

Five themes were identified: *The Nature of SSHB* describes and explains the perceived features and aetiology of suicide and self-harm; *Experiencing SSHB* illustrates participants' reported experience of or exposure to such behaviours, as well as reactions and outcomes; *Attributions* encompasses judgements made – by both participants and others – around SSHB and the people who engage therein; *Change* describes the evolution of knowledge and understanding of such behaviours and the way they are perceived, and discusses interventions and methods of prevention; and *Portrayal of Self* describes participants' depiction of themselves during interview as different to the majority, with suggestions of conformity to perceived social expectations.

Conclusion

The findings of the current study demonstrated the complexity of individuals' conceptualisation of SSHBs. Beliefs around such behaviours appear to be complicated and often contradictory, highlighting the many opposing features inherent to the issue. One clear

and ubiquitous finding was participants' belief that they differed to others in both their knowledge and attitudes, a finding which potentially opens up interesting avenues for future research.

7.2 Introduction

The results of Studies 1 and 2 (Chapters 5 and 6, respectively) indicate that both undergraduate students' and high-school pupils' perceptions of others' SSHBs are discrepant from reported norms, and perceptions of the social norms surrounding SSHB may be predictive of individuals' own behaviour within these populations. However, the obtainment of some interesting and unexpected findings provided argument for further investigation and elaboration. Specifically, whilst some groups were perceived as more likely than was reported to engage in SSHB (e.g., more distal groups) – as has been the case in previous social norms research – more proximal groups (such as parents and family members) were deemed as less likely (than reported norms) to engage in those behaviours, which is inconsistent with what has been shown within other behavioural domains.

One possible explanation for these inconsistencies is that inherent differences exist between the ways in which SSHBs are viewed, in comparison to some of the other health-damaging behaviours, which have previously been studied within the social norms literature (e.g., alcohol consumption, smoking). As discussed in Chapter 4, a major limitation of quantitative research methods such as social norms surveys is that they are unable to explore the intricacies of responses. It was considered that an exploratory qualitative study would enable an understanding of how participants arrived at the perceptions reported in Chapter 5 (and perhaps provide some indication of how participants arrived at the perceptions reported in Chapter 6), thus enriching that data. By asking members of the population directly, it was possible to explore the factors that contribute to the development of perceptions of social norms surrounding SSHBs, and how those behaviours are viewed.

In addition, very little qualitative research exists within the field of social norms research, and McAlaney, Bewick and Hughes (2010) have argued for the importance of qualitative research into social norms. Adding to our understanding of how normative perceptions develop and how they relate to an individual's own behaviour and attitudes might assist in the development of explanatory theory, something which to date is lacking in the field of social norms (as discussed in Chapter 3).

7.3 Aims

The aim of the current study was to explore in more detail the normative perceptions identified in Study 1, and the beliefs behind them. It was hoped that through the use of open-ended, exploratory questioning, a deeper understanding would be gained of the variables involved in the development of undergraduate students' perceptions of SSHBs, how individuals view such behaviours, and how they conceptualise their individual viewpoints.

7.4 Method

7.4.1 Participants

Undergraduate students from the University of Strathclyde, over the age of 18, were invited to participate. Participants were recruited using a convenience sampling strategy, through advertisements put up around campus and posted on social media sites (including clubs and societies' web pages), fliers distributed in communal areas, and standard recruitment emails. Participants were provided with contact details for the researcher and interested students were invited to contact the researcher for more information. If upon receipt of this, they were happy to proceed, they were invited to attend a face-to-face interview at the University of Strathclyde, at a time and date convenient to them. Again, those registered on a particular methodology module in the School of Psychological Sciences and Health were eligible for research credits, while everyone else received a £5 shopping voucher in recognition of their time and effort in participating. Recruitment concluded when it was believed that data saturation had been reached (see section 4.3.2).

29 undergraduates participated, 24.1% (N = 7) of whom were male. Ages ranged from 18 to 42 years, with a mean age of 24.0 years (SD = 7.52). 44.8% of participants were in their first year of study, 17.2% in their second, 24.1% in their third and 13.8% in their fourth. 65.5% studied psychology, and other subject areas included social work, education, engineering and computing.

7.4.2 Design

A semi-structured, face-to-face interview design was used.

7.4.3 Materials

An interview schedule was designed from scratch to address some of the issues identified as needing clarification in Studies 1 and 2 (see Appendix R). Questions were aimed at eliciting participants' views and understanding of issues surrounding SSHBs, in order to help explain their normative perceptions (as reported in Study 1). Questions therefore explored participants' experience, knowledge and perceptions of the prevalence of, causes of, and motivations behind SSHBs; their attitudes towards them and people who engage in them; their perceptions of the views of people in general on all of the above; and their beliefs about interactions between different parties' attitudes and behaviour. The nature of semi-structured interviews allows for the researcher to deviate from the interview schedule in order to follow up on any interesting responses, so a semi-structured approach represented the ideal method by which to explore such a relatively novel topic in which there was a complete absence of expectations regarding possible findings. In addition, a short tick-box style questionnaire was used to record participants' specific experiences of SSHBs for comparison purposes (see Appendix S). A digital voice recorder was used to audio-record the interviews and an electronic foot pedal and NCH Express Scribe Pro transcription software aided transcription of the data into text. QSR NVivo 10 was used to organise, code and analyse the data.

7.4.4 Procedure

Ethical approval for the study was obtained from UEC. After requesting and receiving full information on the study (see Appendix O for information sheet), participants were invited to attend a mutually convenient appointment with the researcher in a private office on University premises. Participants were given further opportunity to read the study information and ask any questions, and were reminded that if they were in agreement, the interview would be audio-recorded. Upon indication that they were happy to proceed, they were invited to sign a consent form (see Appendix P) and the interview commenced. Once the interview was complete, the recorder was switched off and participants were invited to complete the short questionnaire. Interview recordings and short questionnaires were given anonymity codes so that they could be matched at a later date, and participants were provided with a debrief sheet (see Appendix Q). Participants were compensated for their time through the provision of a £5 gift voucher, or 1 course credit towards their research methods module (Psychology undergraduates only). The duration of interviews ranged between 9 minutes 57 seconds, and 56 minutes 28 seconds, with a mean duration of 20 minutes, 52 seconds; plus an additional 10 minutes for the information and consent process,

completion of the short questionnaire, and debriefing. Recruitment was complete when it was believed (based on detailed review of transcripts and preliminary coding) that data saturation had been reached (i.e. no novel data was generated by subsequent participants).

7.4.5 Analysis

As the purpose of the qualitative component of the current thesis was largely exploratory, a method through which new theory may be constructed (as opposed to the application of existing theory to new data) was necessary. Until research indicates that a particular theory might be applicable to a certain field, application of such a theory to the data would be inappropriate. On account of the lack of research into the social norms of SSHBs, methods grounded in a particular theoretical perspective (e.g., conversation analysis or interpretative phenomenological analysis – see Braun & Clarke, 2006) may be restrictive, so for the analyses of an area so lacking in theory, it was important that a simple, flexible, *atheoretical* approach was used.

Thematic analysis was chosen on account of its simplicity and its independence from theory and epistemology (Braun & Clarke, 2006). It is believed that given the lack of previous research around the current topic, thematic analysis would be particularly useful, because it "enables the researcher to access a wide variety of phenomenological information as an inductive beginning of the inquiry" (Boyatzis, 1998, p5). Whilst it is not without its limitations and is perhaps not considered as sophisticated as some other qualitative analyses (Braun & Clarke, 2006), thematic analysis is neat in its simplicity, enabling accessible and flexible analysis of the researcher's choice of the depth and breadth of, as well as specific features of, the data. It has also been argued that thematic analysis utilises some of the more useful features of other, more structured analyses, including grounded theory and phenomenology (Guest, MacQueen & Namey, 2012). Through the identification of important themes and patterns occurring within the data, thematic analysis enables theory to emerge directly from the data, in the absence of any necessary hypotheses or specific predetermined questions, and without theoretical restrictions. It was considered that this would be an appropriate analytical method for use in such a relatively atheoretical domain.

Before data analysis occurs, decisions must be made regarding which method of code development (data-driven or theory-driven) and which level of content analysis (semantic/manifest or latent) are to be employed (Boyatzis, 1998; Braun & Clarke, 2006):

For the current study, it was decided that again, due to the lack of theory and previous research in the area, codes – and therefore resultant themes – would be generated inductively, using a *bottom-up* process (as opposed to the *top-down* development of theory-driven codes). Utterances were coded according to their meaning, with each "chunk" of meaning coded indivually (such that any one sentence may be divided and coded into several separate codes). Whilst this method is arguably more reliable than theory-driven code development given the increased likelihood that different researchers would identify similar codes and the relative researcher-independence of emergent themes, it can be challenging in its inherent uncertainty (in terms of the conclusions which might be reached; Boyatzis, 1998). It does however, provide a rich description of the data overall, and affords the development of flexible themes, firmly rooted in the data (Braun & Clarke, 2006). The exploratory nature of Study 3, and the lack of discernible hypotheses or independent or dependent variables, argued for the use of inductive code development.

Given that the purpose of the study was to gain an understanding of the underlying beliefs and experiences involved in the development of normative perceptions, and to identify features of participants' beliefs and experiences which might contribute to the differences found between the current research and previous social norms research, it was also deemed most appropriate to focus on *latent* content analysis, as opposed to *semantic (or manifest)* content analysis. The former aims to determine underlying causal assumptions which inform surface responses, whilst the latter focuses only on explicit responses, extracting themes from the surface content (Braun & Clarke, 2006).

Once decisions have been made regarding analytic focus, the actual thematic analytic process typically consists of six stages (e.g., Braun & Clarke, 2006), which were followed closely throughout the analysis of Study 3 data:

i) Familiarisation with the data: This comprises the "active" reading and re-reading of the data until one is completely familiar with it, whilst making notes on any initial points of interest and potential codes.
ii) Generation of initial codes: This involves identifying meaningful parts of the data and combining or splitting them into groups and sub-groups. This will typically begin with verbatim extracts, but should develop into categories representing deeper meaning.

iii) Identification of themes: Themes which group the codes can then be identified. Relationships between and within codes and themes are explored, and broader patterns begin to emerge.

iv) Review of themes: At this stage, the data is re-explored and units of data which support or refute each of the identified themes are sought. Themes are checked for their accuracy of representation of meaning, and overlaps or misfits of the data/codes/themes are examined.

v) Definition and naming of themes: Those themes which are considered accurate in their representation of the data are defined and named in terms of what they contribute to our understanding of the data.

vi) Production of the report: Those themes which both describe the data effectively, and assist in addressing the research question, are then identified and explained. If appropriate, findings should be member-checked by participants to verify meaning.

Alongside these six stages, a reflective journal is maintained, detailing each stage of the process, reflections and decisions made, relationships noticed between codes and themes, and questions and answers generated by the data. This journal helps to promote transparency of the analytic process and aids objectivity. The journal maintained throughout analysis of Study 3's data can be seen in Appendix U.

7.5 Results

7.5.1 Prevalence of suicidal and self-harming behaviour

Inspection of the short questionnaires indicated that 41.4% reported ever having had thoughts of self-harm, 24.1% reported ever having harmed themselves, 31.0% reported ever having had thoughts of suicide, and 6.9% reported ever having made a suicide attempt. 86.2% reported knowing someone who has engaged in SSHBs, and 65.5% reported suspecting (without knowing for certain) that people they know have done so.

7.5.2 Thematic analysis

The thematic analysis generated 239 data-driven codes (see Appendix V for full list), from which five overarching themes were identified:

- Theme 1: *The Nature of Suicidal & Self-harming Behaviour*

- Theme 2: *Experiencing Suicidal & Self-harming Behaviour*
- Theme 3: *Attributions*
- Theme 4: *Change*
- Theme 5: *Portrayal of Self*

There were considerable contradictions within the data, as well as substantial overlap between themes, but this was perhaps unsurprising given the complex nature of the topic in hand. It is believed that the overlap and interrelaion between themes represents a function of the complexity and convolution of a particularly multifaceted issue, and is illustrative of the contradictions and nuances within perceptions of SSHBs.

7.5.2.1 Theme 1: The Nature of Suicidal & Self-harming Behaviour

The first and largest theme (in terms of both number of relevant codes and the extent to which it was endorsed by participants) brought together participants' perceptions of the descriptive features of SSHBs, including their perceptions of the causes for and reasons behind them, and perceived typical characteristics of those behaviours and individuals who engage in them. This theme was broken down into seven sub-themes: *Rational choice, Experience, Within the Person, Uncontrollable Factors, Interaction with the World, Despair, Social Influences* and *Descriptive Features*. A thematic network diagram of this theme, illustrating its sub-themes and further sub-groups of codes, can be seen in Figure 7.1. The first six of these sub-themes describe the perceived aetiology of SSHB, whilst the seventh represents a more descriptive sub-theme, describing perceived characteristics of the behaviours themselves, and the people who engage in them. All participants ascribed numerous causes or reasons for SSHB, and most endorsed items within all six explanatory sub-themes (although different participants endorsed different individual sub-themes with varying strength).

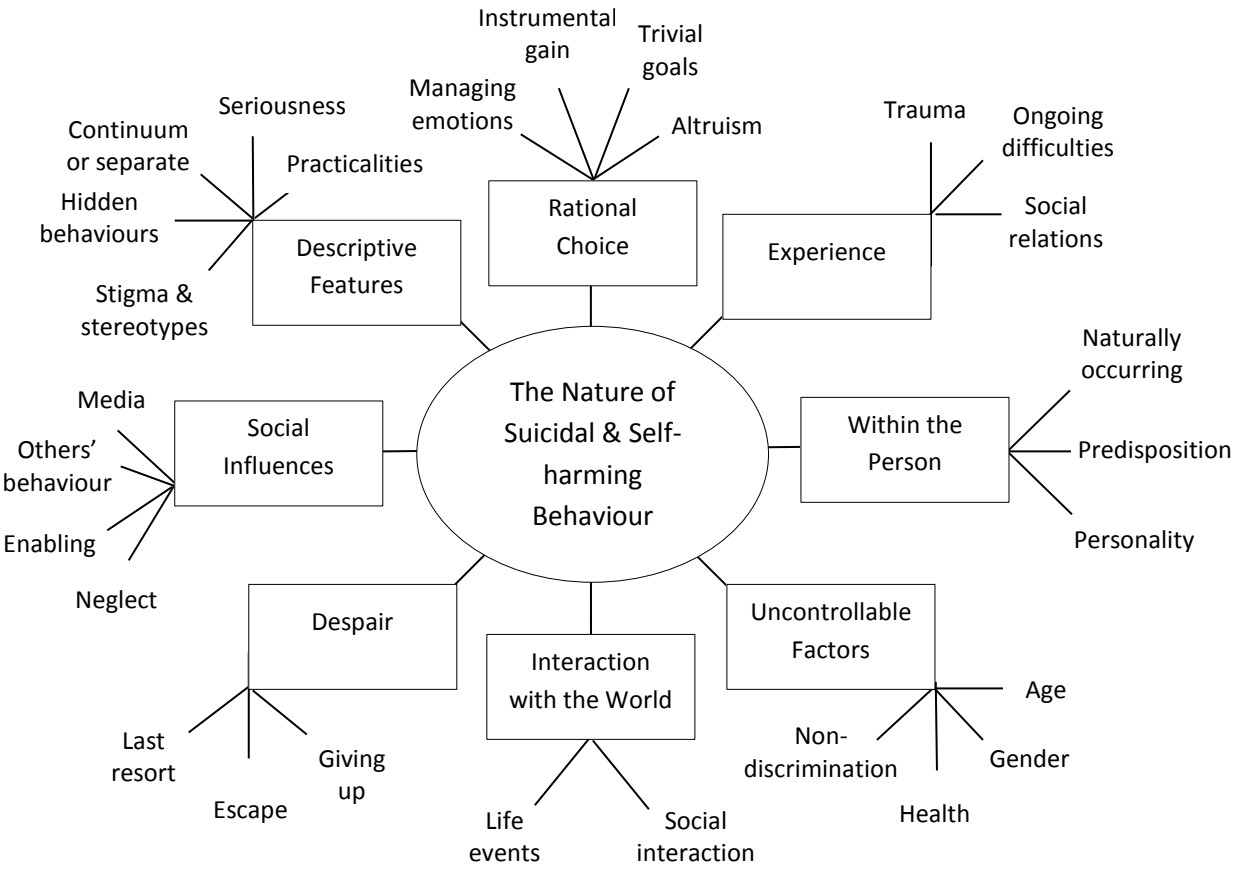

Figure 7.1: Thematic network diagram of the theme "The Nature of Suicidal & Self-harming Behaviour"

Rational Choice. All 29 participants (236 extracts) referred to perceived features of SSHBs that were related to the idea that a rational choice was made by the individual. These features were described in terms of conscious decision-making and/or based on cause-and-effect reasoning. Overall, this theme describes a responsibility on the part of individuals for their behaviour, with the decision to engage in SSHB seen as purposeful. Although different judgements were apparently made about those decisions (the nature of which is captured within other themes, to be discussed), this theme depicts SSHBs as rational and goal-directed.

It was often expressed that although painful emotion may ultimately drive the behaviour, the decision to engage on SSHB is perceived as being made consciously, through rational deliberation, in an attempt to regulate emotions. Self-harm was seen as a means of releasing or relieving painful emotion through physical pain, and sometimes a means by which to avoid more serious harm (i.e. suicide). At times, it was also perceived as a way of eliciting sensation and relieving feelings of emotional numbness.

> "Self-harm I think it's using pain to relieve the emotions, for the negative- for the stuff that's been troubling you, you use self-harm, like pain, as a means of relief from some things." *Participant 15 (personal experience of SSHB)*

At times, participants referred to a choice to engage in SSHB in quite practical terms, designed to achieve a particular aim and relatively devoid of any emotional significance. It was perceived as instrumental behaviour, sometimes designed to elicit resources from others, and sometimes aimed at achieving some personal goal (e.g., control or self-punishment).

> "I guess that erm… like, if you show that to people, if you show that you self-harm to people like, it would evoke sympathy […] so that would like, really like, bring out who cares for you and who doesn't." *Participant 10 (personal experience of SSHB)*

The tone of this sub-theme was at times mildly blaming, with participants sometimes describing acts of SSHB in somewhat disapproving terms, questioning the legitimacy of individuals' motives. Behaviours were often perceived as lacking in real severity, designed to achieve trivial goals (such as fitting in with a crowd or portraying a particular identity), with individuals perceived as slightly frivolous.

> "I don't know if they're doing it like, proper for the right reasons, they might, like- 'cause you see people and there's like slight things but they don't look like… deep or anything, so even just to like, show people." *Participant 5 (no personal experience of SSHB)*

As such, this sub-theme links well with the sub-theme of *Blame and Judgement*, which is discussed in the following section (section 7.5.2.3 – *Attributions*). This was not uniformly the case however, with some participants believing that decisions to engage in SSHBs were made as a result of real desire to die. In some cases, this was through the belief that it would benefit others.

> "Maybe suicidal people think that people will be better off without them, if people are treating them like they're not important […] they're getting- maybe having arguments with everybody […] it's not so much they want to die, that they feel like

> it'd be better for other people for them to die." *Participant 13 (no personal experience of SSHB)*

Experience. All 29 participants (291 extracts) expressed the belief that individuals engage in SSHB as a result of their experience, or as a reaction to things that have happened in their lives. A broad range of experiences were perceived as causal, and it was often assumed that a dose-response relationship exists between the extent of adversity experienced and the severity of behaviour. This sub-theme placed less emphasis than the last on the individual in the development of their SSHB. Rather, it was slightly more sympathetic in tone, highlighting those events in an individual's life which might lead them to engage in such behaviour, and describing behaviour as an outcome of adversity, as opposed to a deliberate choice, necessarily.

Sometimes SSHB was described in terms of the direct result of traumatic events that had happened.

> "If they woulda had the trauma and whatever in their life… their experience, you know […] there could be an abusive relationship, but it's generally something that's you know, kinda happened in the past or whatever." *Participant 17 (no personal experience of SSHB)*

It was also at times perceived as a reaction to difficult life circumstances, or as a symptom of on-going difficulties.

> "Probably just today's society […] people are like, stressing out over jobs, money and all that and they've got loads of stress in their life." *Participant 27 (no personal experience of SSHB)*

In particular, experiencing loneliness or isolation, or otherwise experiencing negative social relations was considered causal; for example, difficulties within relationships or having received maltreatment from others.

> "They probably think that they're not- they're not good enough for- for whatever reason, to be part of society… and maybe like, bullying and stuff like that." *Participant 29 (no personal experience of SSHB)*

Within the Person. This sub-theme, endorsed by 28 participants (258 extracts), brought together those items which refer to SSHB as originating from within an individual, or as a result of their internal processes or characteristics. Although similarly focused on the individual, unlike the *Rational Choice* sub-theme, *Within the Person* implies less conscious control over behaviour; instead describing behaviour as developing as a result of unconscious processes, almost organically. SSHBs are attributed to internal, unconscious factors within the individual, which occur naturally and may be innate. There seemed to be a slightly condescending tone to much of this sub-theme, with an albeit mild implication that the individual is in some way impaired or unwell, and has limited capacity to cope with life, or to control their behaviour. They were however, vindicated from any blame or judgement as a result.

Behaviours were often described as impulsive, sudden and without any pre-planning. Sometimes they were described as something that just develops naturally within a person, or occurs by chance.

> "Maybe it's just a natural thing that comes if you feel a certain way? You just feel it's like harming yourself, that's a way." *Participant 20 (personal experience of SSHB)*

Some participants posited innate or hereditary factors as a cause, referring to SSHBs in terms of an inherited condition or as a result of predisposition.

> "Probably some sort of scientific explanation [*laughs*] erm maybe like, genetically, there's probably something that you're more prone to." *Participant 18 (no personal experience of SSHB)*

At other times, whether or not someone engaged in SSHB was described as the result of particular personality traits, or as a feature of their character. Resilience, ability to cope with pressures, and hopefulness were perceived as variable across individuals, and this was supposed to be related to behaviour.

> "If someone's erm strong-willed or they know how to sort things, then they're going to go about it how they feel, but if someone's kind of uncertain… […] it's just completely about the person's own ability to […] be brave enough to go 'I want

help', rather than just going 'I'll take the easy option'." *Participant 6 (personal experience of SSHB)*

Uncontrollable Factors. 28 participants (216 extracts) endorsed this sub-theme. Sharing some features of both the *Experience* and *Within the Person* sub-themes, this sub-theme comprises of accounts of SSHB as something which happens to an individual, and is related to factors outside of the individual's (or anybody else's) control, such as biological or health-related variables. Whilst some of these factors were described in terms of increasing risk (e.g., gender), some were determined to be direct causes (e.g., genes, mental illness). This theme was particularly practical in tone, and no moral judgement was evident. It was also the least abstract explanatory theme, in that issues that fell within this theme attributed behaviour to concrete, observable, indisputable concepts.

Some participants believed that demographic variables accounted for engagement in SSHB, and whilst a proportion of them held knowledge about reported rates as a result of their education, the majority of participants merely expressed their perceptions. Many believed for example, that such behaviours occur predominantly in young people, and that adults were unlikely to engage therein.

> "I've never really considered adults partaking in that sort of thing. Self-harm's always been something I kind of associated with a younger age-group." *Participant 14 (personal experience of SSHB)*

Gender was also considered a relevant factor. Though both genders were posited to be a higher risk than the other, there was a slightly larger proportion who believed that females are particularly prone to SSHB.

> "See I think it's certainly more female-orientated, that I've seen, I mean I could be totally wrong and I've no research or anything like that but I would say fae what I've seen it has been the females." *Participant 17 (no personal experience of SSHB)*

Some participants believed that health issues – particularly mental health issues – accounted for the development of SSHBs.

> "People have actually got like, mental health issues that are like, don't know how to say it but like, make them do that." *Participant 18 (no personal experience of SSHB)*

Although they reported specific factors which might increase risk (especially experiential factors), many participants talked about the non-discriminatory nature of SSHB, and described it as something that can happen to anyone.

> "Before I'd met my flatmate I'd say more people in… like, maybe have like, bad families or unstable situations, but then she like, she had a very like, wealthy upbringing and like, everything was like, given to her, so after that I'd maybe say like, it can happen to anyone." *Participant 23 (no personal experience of SSHB)*

Interaction with the World. Subtly but meaningfully distinct from *Uncontrollable Factors*, this sub-theme encapsulates the perceived causes which were external to the individual, but with which they interact or by which they are influenced. All 29 participants (234 extracts) endorsed this sub-theme. Behaviours were perceived as not entirely out of the individual's control, but control may be limited. It is an individual's contribution to and interpretation of features of their world which is of importance. As such, individuals are perceived as holding a certain amount of responsibility for their resultant behaviour, although they are not necessarily perceived as having directly caused their adversity, or deliberately chosen to react to it by engaging in SSHB.

The first of two main ideas within this sub-theme focused on other people, and the way in which an individual interacts with their social environment. Feeling unloved or unwanted was perceived as causal, as were lack of support and having no one to talk to.

> "If you've got no one, if you're lonely, and you feel like that's your only way out, you've got nothing going for you, no job, no family, people have deserted you, there's no one there that you can reflect on ask for advice or… I think that it comes down to mainly, just the support." *Participant 6 (personal experience of SSHB)*

Other people were also perceived as influencing individuals to engage in SSHBs, and social pressures and the desire to "fit in" were further implicated.

> "I think it might be, like, young people's peers and that can put pressure on them and that and they just want to fit into the crowd and that […] so I think if like, the cool kid at school, if he says 'no, suicide's this' or 'suicide's that', or 'self-harm's

this', 'self-harm's that', I think they do go with it." *Participant 29 (no personal experience of SSHB)*

The second main idea focused on the individual's interaction with external events, and things that happen in their life. This was distinct from the *Experience* sub-theme described above, in that a dynamic relationship between an individual and what happens to them is assumed, opposed to the individual being a passive recipient of experiences. Loss of role within society was considered detrimental and individuals' feelings of having a purpose were perceived to be associated with more concrete societal constructs (e.g., poverty, job loss). Cultural values and pressure to succeed were considered important, and failing to meet societal expectations was theorised as a reason for SSHB.

> "Obviously with men that are over sixty-five, it's probably loss of role, loss of kinda erm purpose. […] Typically in the west coast of Scotland, if you're a working man then that's all you did, you know and that could be a reason." *Participant 12 (personal experience of SSHB)*

Despair. All 29 participants (309 extracts) explained SSHB in terms relating to feelings of despair and a complete loss of hope. There was an essence of desperation within many extracts, as though SSHBs were perceived as a somewhat rash outcome of severe distress, whilst other extracts were characterised by resignation and submission to defeat. Overall, this sub-theme was quite sympathetic in tone, with participants generally acknowledging that suicidal individuals are likely to have experienced extreme pain and anguish.

Individuals were perceived as having lost everything, and having reached a threshold of pain beyond which they were unable to go, such that SSHB had become the only remaining option.

> "I would think it would need to be pretty drastic scenarios to push people like that […] like a kind of last line of defence, you know everything else has failed, you know you've lost absolutely everything, there's nothing left for you in this world so there's no point in going on." *Participant 14 (personal experience of SSHB)*

Sometimes this was described in terms of individuals feeling trapped in a painful situation from which they use suicide as a means by which to escape.

> "They don't see any other- any other way of escaping their troubles than… they've maybe tried every other option and they just don't see any possibility of escaping it." *Participant 29 (no personal experience of SSHB)*

At other times, suicide was described as giving up; the result of exhaustion or losing the will to fight adversity.

> "Maybe also just exhaustion as well, like, I can you know, I can empathise with this idea of like, just 'I've had enough, like, it's too much'." *Participant 16 (personal experience of SSHB)*

Social Influences. The final of the causal sub-themes comprises those social factors which participants believed had an influence on the development or worsening of SSHBs. Although this sub-theme shares features of both *Experience* and *Interaction with the World*, it is conceptually distinct in that it focuses specifically on social referents as sources of increased risk, and implies the passive receipt of influence from those referents, as opposed to acknowledging a dynamic relationship between the individual and those sources, or any capacity on the part of the individual to resist influence. 28 participants (270 extracts) endorsed this sub-theme. Many of the ideas within this sub-theme were unanimously held, and influences from the media and other people were considered ubiquitous and powerful.

By far the most commonly cited influence over SSHBs was the role of the media, with 20 participants reporting that the media played a role in increasing engagement therein. Glamorisation and over-reporting were considered key, and this included via such mediums as TV, films, news reports, music, and the internet (particularly social media).

> "If you see it on like, soaps or erm things like that […] probably on the news stories. Obviously if you hear a lot of stories about people committing suicide or self-harming you might […] think 'well that's a way I could use to cope'. And the internet as well." *Participant 4 (no personal experience of SSHB)*

A second major idea within this sub-theme was that exposure to SSHB in others increases risk or may even be where people get the idea, as it was believed that this might make such behaviours feasible or relatable.

> "I'd imagine that would probably be why the various ways people do go down that road, is watching and learning from other people that that's […] almost an acceptable way to deal with your problems." *Participant 25 (personal experience of SSHB)*

Some participants even believed that simply talking about such behaviours was enough to increase risk, both in terms of people talking about their own behaviour, and concerned individuals asking other people about theirs.

> "I think there are certainly kids in the schools that talk about it […] for whatever reason they think that makes them look cool and it's actually putting other people at risk, do you know what I mean? If they say 'oh I did this and it made me feel better' and someone else is gonna pick that up and is potentially gonna use it." *Participant 3 (no personal experience of SSHB)*

Another major idea within this sub-theme (and one that overlaps slightly with some ideas within *Interaction with the World*), was that individuals are encouraged or enabled by a particular social group to engage in SSHBs. *Interaction with the World* previously described how SSHBs were perceived as reinforced through peer pressure to fit in with a group or to portray a certain identity. In addition to this, individuals with similar problems were seen as inadvertently influencing individuals, through the provision of information and support.

> "The internet as well […] all these like, forums […] some are for support but then others, I feel like they encourage people… they just- they talk about their experiences and then it might give other people erm ideas how they might think they could cope." *Participant 4 (no personal experience of SSHB)*

The final major idea within this sub-theme was that neglectful or negative influences may exacerbate or prolong existing SSHB. A number of participants believed that dismissiveness or negative attitudes towards those who engage in such behaviours are unhelpful, as they may make the situation worse, and that a lack of help (or knowledge about how to get help) results in individuals' continued endurance of their problems.

> "I imagine people that erm dismiss the erm, self-harm and suicidal thoughts and attitudes aren't helping, and if- if there's a person that's having those kind of thoughts and then they've got someone in their life that's dismissive and doesn't

take it seriously, it can be very damaging to them." *Participant 22 (personal experience of SSHB)*

Descriptive Features. The final sub-theme, endorsed by all 29 participants (309 extracts), varied slightly from its fellow sub-themes in that it described perceived characteristics of SSHB, as opposed to attempting to explain it. Despite its slight difference, it was still deemed appropriate to position it within the *Nature of SSHB* on account of its descriptive, illustrative function. Some items discussed within this sub-theme were extremely concrete; such as methods used and noticing people's scars, whilst others were more subjective; such as perceived seriousness and relationships between different behaviours. Overall, this sub-theme described a variety of often conflicting perceived descriptive characteristics of SSHBs.

Extracts within this theme varied widely in terms of differences and similarities between perceptions of the same issues. For example, although participants perceived SSHBs overall to be a serious problem, views varied regarding prevalence, the seriousness of individual behaviours, and the extent to which individual behaviours should be shown sympathy.

> "It sounds a bit backward but I'm more sympathetic towards self-harming […] it must be a horrible experience to have to hurt yourself and then living with… 'cause you're living through that […] but suicide… obviously it's a horrible situation to be in but […] you don't continue to live through that afterwards." *Participant 25 (personal experience of SSHB)*

Some participants saw SSHBs as similar, existing on a continuum or representing a spectrum of behaviours, whilst others described them as distinct constructs.

> "Err I'd imagine there's- the two are kind of intertwined, that one leads onto the other. That if it's not caught then- probably suicidal thoughts would lead you to self-harming." Participant 25 (*personal experience of SSHB)*

Although behaviours were perceived as serious and extreme, many participants believed that it could be those you would not expect who are most at risk, and frequently referred to the hidden nature of suicide and self-harm.

> "I think with certain things like illnesses and stuff, people only presume that it's happening if they can physically see it, where self-harming's one of these ones that a lot of people do it discreetly […] so you can't see it, you don't think it's there." *Participant 6 (personal experience of SSHB)*

Participants often referred to stereotypes surrounding suicide and self-harm and talked about the stigma associated with such behaviours, although there was again some contradiction with some participants endorsing stereotypes, and others denying their utility.

> "It's quite a stereotype erm… I think they just dress differently but other people associate behaviours and things like that with them, that maybe aren't associated with them all. […] It's only a minority that do it, just like a lot of other people can do it that are just outside that category." *Participant 8 (personal experience of SSHB)*

This overall theme encompasses participants' perceptions of what SSHBs are, who they affect, how they develop and how they are maintained. Explanatory and descriptive in nature, this first theme provides a narrative context within which more reflective, analytical issues may be explored.

7.5.2.2 Theme 2: Experiencing Suicidal & Self-harming Behaviour

The second identified theme encompasses those aspects of the data relating to the experience of SSHBs (both for the individuals themselves and for those around them), including perceived exposure and outcomes. This theme was broken down into three sub-themes; *Exposure & Awareness*, *Impact* and *Emotion*. Figure 7.2 illustrates a thematic network of this theme.

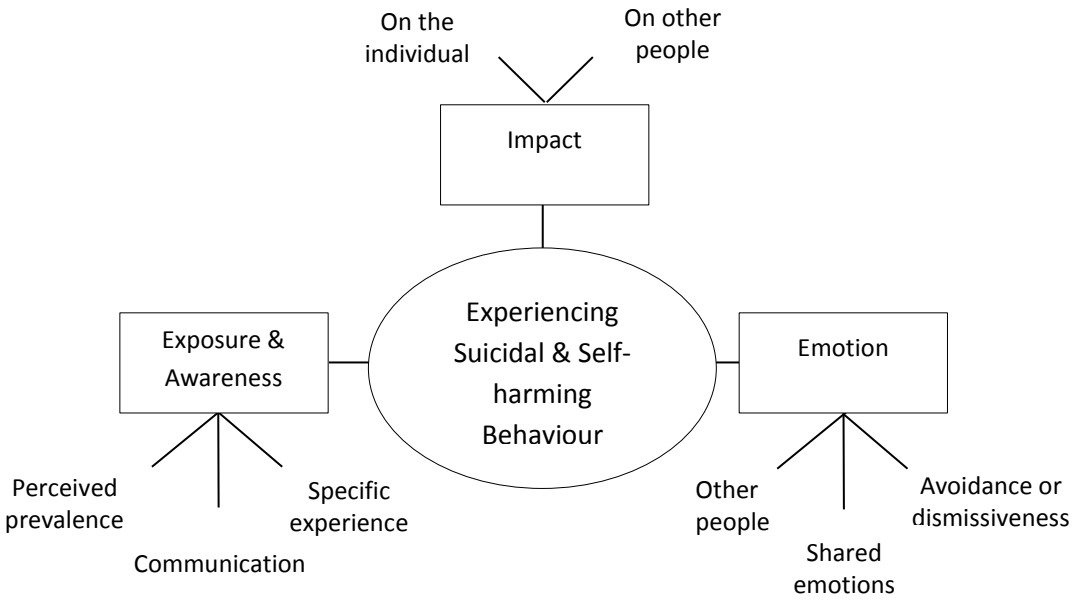

Figure 7.2: Thematic network diagram of the theme "Experiencing Suicidal & Self-harming Behaviour"

Exposure & Awareness. The first sub-theme brings together participants' perceptions of the prevalence and signs of SSHB, and exhibits their perceived exposure to and familiarity with such behaviours. All 29 participants endorsed aspects of this sub-theme (399 extracts). Overall, this sub-theme demonstrates that participants believe SSHBs to be relatively common – although perhaps not in people they know – and whilst some described tangible experiences of such behaviour, many instances were assumed or heard about from third-party sources.

Although the perceived prevalence of individual behaviours varied between participants, and a minority of participants claimed that such behaviours were relatively rare, the majority believed SSHBs in general to be pervasive, with a widely-held belief that people tend to underestimate the frequency of their occurrence. Specifically, 20 participants explicitly stated that they believe such behaviours to be "more common than people think". Despite this, people often reported that such behaviours are not common in people they know.

> "I know like, a lot more people do attempt suicide than I would think, but I don't know anyone personally – well, that I know of – that has attempted suicide or committed suicide." *Participant 4 (no personal experience of SSHB)*

In addition, despite not always responding as such when asked explicitly if they knew anyone to have engaged in SSHBs, most participants gave accounts of people they had known to do so, or had at least heard about, and some reported suspecting that people they know had done so, without knowing for certain.

> "I've had two people… I've lost someone to suicide and I know one other person that has engaged in self-harm." [*Then later on in the interview*:] "Erm I'd actually forgotten to mention that I also had a friend in erm secondary school who had attempted suicide." *Participant 3 (no personal experience of SSHB)*

Participants often recounted what made them suspect people were engaging in such behaviours, or how they had heard about an incident, and for the most part, this was through noticing people's scars or a change in their behaviour, or through word of mouth or general gossip. On notably relatively rare occasions, the individuals concerned themselves had explicitly told them about their SSHB.

> "Erm some things I just heard like, people around… […] sort of when I started high-school, through people in high-school and then just hearing through family members, not really hearing from anyone directly." Participant 22 (*personal experience of SSHB)*

In contrast to the regularity with which individuals' attributed their knowledge of others' SSHBs to presumption and hearsay, a number of participants reported in detail on specific experiences of such behaviours; either their own or through someone close to them. A minority had lost people to suicide, and where they had, they tended to report multiple instances, and some were able to provide detailed accounts of the suicidal behaviour of family members or friends.

> "A good friend of mine has taken his own life, erm and my brother in law has taken his own life, and my friend's father who I was close with – it was my best friend – he's taken his own life also." *Participant 12 (personal experience of SSHB)*

Impact. 26 participants (134 extracts) referred to the aftermath or outcomes of SSHBs, in terms of both the impact on the individual themselves and on those around them. This sub-theme combines ideas around the maintaining or exacerbating effect that SSHB can have on

the suffering of individuals who have engaged therein, with ideas around the subsequent loss, grief and guilt experienced by people they know/knew.

Individuals who have engaged in SSHB were perceived to have contrasting outcomes by different participants. Particularly in the case of non-fatal behaviours, individuals were perceived by some to continue to suffer, and perhaps even to suffer further as a result of their behaviour.

> "They could maybe self-blame- start self-blaming, 'why did I want to do it?' and it starts thinking and thinking about it, and they can always find reasons why they wanted to do it that then can lead to repeated actions." *Participant 15 (personal experience of SSHB)*

For some, individuals were seen as experiencing denial or pretending to others that the event had never happened. For others, other people's reactions to individuals' engagement in such behaviours were perceived to potentially cause them further suffering, proffering barriers to their recovery through the activation of further distress.

> "I think people can be very like, nasty towards it and like, isolate people and like, erm… I don't know, just become- like treat them like, almost like an alien… Probably make them feel ashamed, maybe?" *Participant 18 (no personal experience of SSHB)*

With regard to the impact on other people of an individual's SSHB, sympathy was expressed for those left behind following a suicide, who were assumed to be devastated and to have questions that could never be answered. A number of participants insinuated in particular that when someone takes their life, their suffering merely transfers onto other people. Non-fatal behaviour was also considered damaging to others, albeit less so.

> "They don't feel like it's [*self-harm*] affecting anybody else, like obviously […] if you've committed suicide then it's the fact that you're dead is affecting people but self-harming, they maybe think it's only them it's affecting, but obviously it's not." *Participant 13 (no personal experience of SSHB)*

Underlying this awareness of the impact on other people was a sense of the need for self-preservation on the part of those people. Participants who had been exposed to SSHB in

others spoke of a fear of the guilt that they would have experienced had they lost that person, and one participant even reported noticing this in other people:

> [*Referring to a suicide awareness course they had attended:*] "That was one of my kind of biggest learnings about it and the training experience was all about their… it was all about their grief and it wasn't really about the people that had died." *Participant 16 (personal experience of SSHB)*

Emotions. The final sub-theme brings together the emotional responses which participants believed were related to SSHBs, again, both in terms of the affected individuals themselves and those around them. Representing the smallest sub-theme of the entire analysis, only 24 participants endorsed this sub-theme (86 extracts). Although a minority of participants referred to the emotions experienced by affected individuals themselves, the emotions described were predominantly in terms of those experienced by people who have lost someone to suicide or have otherwise been exposed to SSHB in others, or the participants' own reactions to hypothetical instances of such behaviour. A number of emotions were described including sadness, regret, fear, anger, acceptance, guilt, surprise, shock, shame, horror, grief, worry, distress and feelings of loss.

The most commonly cited emotions were fear and shock on the part if people who have seen or heard about the SSHB of others. Participants considered just hearing that such behaviours had occurred to be shocking, and this was often accounted for by its unexpectedness.

> "I would say I've realised just how shocking… it's made me appreciate how shocking a- as much as I always knew it […] I've experienced like the erm… hearing it that somebody's done that, so it's reiterated to me just how… like… horrendous, like, how […] harsh a scenario it is." *Participant 26 (no personal experience of SSHB)*

Some emotions were attributed to both those who engage in SSHBs and those around them; for example grief, and the experience of loss. It was conveyed that such an experience may account for the individual's arrival at the point of suicidality (see also *The Nature of SSHB*), and their subsequent death may result in further grief and feelings of loss in those who knew them.

> "What triggered it in him we were told, was the death of his sister, because they were that close and he just couldn't cope with it." *Participant 17 (no personal experience of SSHB)*

Many participants alluded to the avoidance of negative emotion or any kind of emotional discomfort. As previously mentioned, participants sometimes spoke of the guilt that they believed would be associated with not having helped someone or stopped them from engaging in SSHB (see *Impact*), which they were clearly reluctant to experience. Such circumvention of negative emotion also appeared to manifest itself in participants' avoidance of talking about suicide or self-harm, or of hearing details about an incident involving someone they know.

> "I think it's just like, really sad to think about it. I don't like thinking about it, like, yeah." *Participant 1 (no personal experience of SSHB)*

Perceptions of people's general avoidance and dismissiveness of the issue were addressed on a number of occasions, and whilst this was sometimes viewed in uncaring or neglectful terms, it was often perceived to serve a self-protective purpose, when people were just unable to cope with the issue.

> "I think if people had a better understanding of what it is when people feel like suicide, they could probably be able to help them that bit more than saying 'well, I cannae deal with this so I'm just gonnae leave you to it'." *Participant 17 (no personal experience of SSHB)*

Overall, this theme depicts what participants believe to be the topography of SSHBs in practice, encompassing ideas around experience and exposure, and outcomes and reactions. Participants reported having experienced a range of different instances of SSHBs, from no experience whatsoever, to extensive experience of their own or through loved ones. The impact of these behaviours on both the individual themselves and on people around them were considered important, and a range of resultant emotions were identified.

7.5.2.3 Theme 3: Attributions

The third theme brought together those concepts relating to judgements made about SSHBs and the way in which they are perceived; ethically, morally, and emotionally. This theme was broken down into four sub-themes: *Sympathy or Empathy, Blame or Judgement, Norm*

of Negativity, and *Denial of Understanding or Responsibility*. A thematic network diagram of this theme can be seen in figure 7.3.

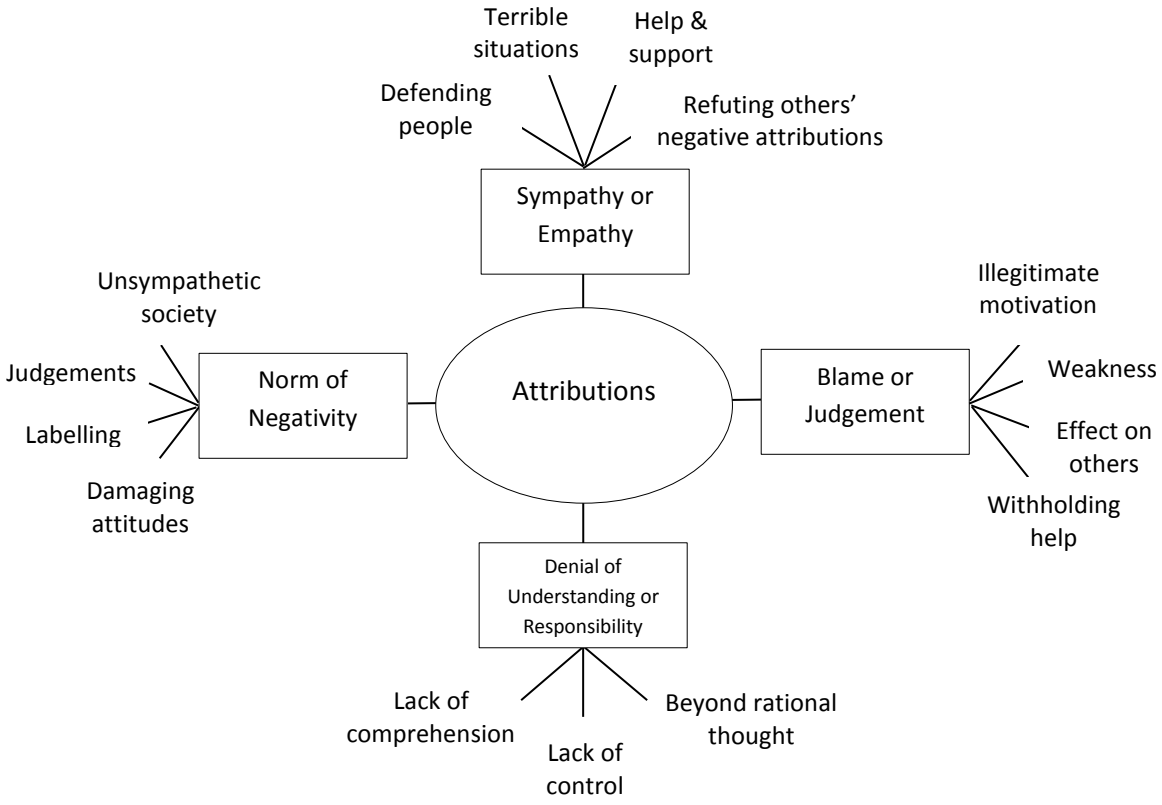

Figure 7.3: Thematic network diagram of the theme "Attributions"

Sympathy or Empathy. The first sub-theme, endorsed by all 29 participants (466 extracts) encompasses those instances in which participants demonstrate sympathy towards individuals engaging in SSHB, or imply that they should be treated with care and concern. Behaviours were seen as a desperate cry for help or as a sign of terrible distress, and participants often expressed a desire to understand, or an ability to empathise. SSHBs were often seen in terms of the symptom of an illness or of significant distress, from which people should be helped to recover. Individuals themselves were perceived to be suffering from extreme anguish and it was conveyed that they should be treated with kindness, as opposed to making disapproving judgements about them or their motivations, as many others are perceived as doing (as is discussed in subsequent sub-themes).

Some participants explicitly stated that they felt sympathetic and expressed kind wishes towards people; acknowledging the pain that they must have experienced and wishing them well.

> "I feel really sorry for them and I hope that they get the help that they need and that they're- they have people in their lives that can help them get that help… and that can recognise that they're in pain." *Participant 22 (no personal experience of SSHB)*

At other times, empathy was expressed towards the unpleasantness of the experiences which it was perceived that people must have endured to resort to those behaviours, or towards the unpleasantness of feeling that way itself.

> "I think to do it, somebody's got to have a really low, low opinion of themself for whatever reason, bullying, and for whatever they've been through […] I feel quite sorry for people like that, 'cause obviously they need help." *Participant 29 (no personal experience of SSHB)*

The idea that affected people need help and should be provided with that help represented a major part of this sub-theme. Mental distress was compared on a number of occasions to physical illness, and assistance was deemed necessary from both professional sources and supportive relationships.

> "We should get involved and like, obviously try and help people […] I don't see how they could possibly like, try and like, recover by themselves, I think they need a bit of help. Maybe not going to therapy or whatever, but maybe just a little… support." *Participant 28 (no personal experience of SSHB)*

Finally, participants denied the negative judgements and the more self-serving or manipulative reasons posited by others as causes of SSHB, instead describing them as resulting from what individuals have been through, which others may not understand.

> "They're not selfish people, they're not cowards, you know, it's- it's part of- part of what they're going through." *Participant 3 (no personal experience of SSHB)*

Blame or Judgement. Perhaps representing the conceptual opposite to *Sympathy or Empathy*, this sub-theme comprises of those instances in which people who engage in SSHB were referred to in negative terms, blamed for their behaviour or deemed manipulative in some way. All 29 participants endorsed this theme (299 extracts). In contrast to the idea of a symptom of terrible pain or a cry for help as demonstrated in *Sympathy or Empathy*, this

sub-theme highlights the more condemnatory and disapproving views towards SSHB. SSHBs are often portrayed as alien and incomprehensible. The effect of individuals' behaviour on other people was again considered important (see section 7.5.2.2), but other people are not assigned any responsibility for helping the individual. Sharing many features with the *Rational Choice* sub-theme of the *Nature of SSHB* theme, individuals are seen as responsible for their own decisions to engage in those behaviours, and concern for their well-being is limited.

As described in the *Nature of SSHB*, the reasons or motivations for engaging in such behaviours were sometimes perceived to be questionable or illegitimate, with participants often reporting them to be attention-seeking or for show.

> "Self-harm […] I kind of associate that with attention-seeking and… I just don't have time for that […] people who are quite attention-seeking and would go to those lengths just to get attention, that's not something I could sympathise with in that way." *Participant 14 (personal experience of SSHB)*

Some participants implied that those who engage in such behaviours are characterised by a certain weakness; that they are cowardly or do not have the strength to find other ways to deal with their problems..

> " I do definitely think like, it's definitely a wee bit… smacks of the coward's way out, kinda thing, not dealing with the problem that's there and kinda not wanting to take responsibility for it." *Participant 11 (personal experience of SSHB)*

A number of participants expressed the belief that to engage in SSHB is a selfish act, and criticised people who do so for not being more considerate of other people.

> "I think, especially suicide […] I think it's very egoistic to people, yeah, who are left behind […] but actually it's the same with self-harming because like, your family or someone around you that if they find out, it would be very hard for them too." *Participant 20 (personal experience of SSHB)*

Finally, contrary to the previous sub-theme, participants sometimes voiced scepticism over the necessity of helping individuals, insinuating that individuals may not actually need or want help, or that they need to help themselves before anyone else should help them.

> "Nothing would ever stop it altogether, but I think there's enough things out there but if someone chooses not to use them then they choose not to use the help. I don't really know how else that you could help them." *Participant 18 (no personal experience of SSHB)*

Denial of Understanding or Responsibility. Smaller in comparison to those described thus far, this sub-theme incorporates those views which imply that individuals are in some way incapable of managing their own behaviour or situation, and lack a real awareness of what they are doing. 17 participants endorsed this sub-theme (52 extracts). Less accusatory in tone than *Blame or Judgement*, but less compassionate in tone than *Sympathy or Empathy*, this sub-theme assumes diminished levels of comprehension or an inability to control or resist engagement in SSHB. Behaviour is attributed to some kind of deficit within the person's thinking, and they are largely absolved of responsibility for their actions.

For example, individuals who have engaged in SSHBs were sometimes believed to have made a mistake or to not have fully understood the consequences of their actions.

> "They're just so emotional and they do it, then they come to realise that… if it's not successful […] I think they regret it, they understand that it was just a momentary thing." *Participant 15 (personal experience of SSHB)*

Sometimes behaviours were seen as impulsive and uncontrolled, or were perceived to be addictive in some way, with individuals finding it difficult to stop once they have started.

> "I think it's kind of an instantaneous thing in a way, err like an impulsive thing, erm… that's maybe a rush of panic." *Participant 3 (no personal experience of SSHB)*

Generally, this sub-theme illustrates a belief that people who engage in SSHBs are not quite able to regulate their emotions or behaviour, but that they have reached a point beyond rational thought, at which they have lost concern for anything else.

> "I think people are so far past anything that's going on around them, I think a lot of people, when they're at that stage where they're gonnae commit suicide, nothing people say can really affect them." *Participant 27 (no personal experience of SSHB)*

Norm of Negativity. Slightly divergent in nature from the previous sub-themes which focused on participants' own attributions towards SSHBs, this sub-theme refers to participants' perceptions of negative normative attributions made by society in general, and thus represents their own attributions towards societal attributions. 29 participants endorsed this theme (253 extracts). Participants communicated that they did not necessarily share society's attitudes, and that such attitudes may potentially result in individuals feeling isolated, stigmatised, and unable to ask for help, thus exacerbating people's problems.

Society or "other people" were seen as dismissive of SSHBs and unconcerned about individuals, belittling what they may be going through and making judgements about people as a result.

> "I think some people are maybe a bit unfair about like, the pressures that lead to it, and a bit blasé about what… about them… putting it down to 'oh nothing's that bad'." *Participant 26 (no personal experience of SSHB)*

Suicide and self-harm were perceived to be seen by others as selfish, cowardly, and attention-seeking.

> "I think they think it's selfish, they think it's silly, I think they probably think it's quite erm egotistical, erm I think they think it's something- some people might cut themselves for- for attention." *Participant 12 (personal experience of SSHB)*

Reiterating some of features of the *Descriptive Features* sub-theme of the *Nature of SSHB* theme, the current sub-theme incorporates participants' discussion of the stereotypes that exist within society and the stigma with which suicide and self-harm – and mental health generally – are treated. Labelling of individuals with such problems was considered prevalent, and participants conveyed the belief that others deemed individuals who engage therein to be "freaks" or "crazy".

> "I think it's something that is kind of a subject of sort of comedy to a lot of people, you know, 'a freak' or 'oh, psycho' and like, all these kind of labels and things." *Participant 3 (no personal experience of SSHB)*

Participants described these negative societal attitudes as potentially damaging, going on to describe how such views might result in exacerbation of individuals' problems and their reluctance to seek help.

> "Maybe those who do like, engage in those behaviours feel like if they maybe talk about it, it might kinda get thrown back in their face and it might cause more pain […] the fact that it's taboo, just- people don't want to talk about it in case of the reaction they get back […] and people might think 'oh they're weird'." *Participant 28 (no personal experience of SSHB)*

This theme overall represents attributions made by participants towards issues around SSHBs; both in terms of the behaviours themselves and society's reaction to them. Attributions were often mixed and contradictory, with individual participants holding many apparently opposing views. Regardless of their own views, participants tended to believe that society in general is disapproving and judgemental towards SSHBs, and that this may be damaging for affected individuals.

7.5.2.4 Theme 4: Change

The fourth theme brought together ideas of change, adaptation and evolution, both in terms of individuals' SSHBs, and other people's attitudes towards and understanding of those behaviours. Three sub-themes emerged within this theme; *Prevention & Recovery*, *Evolution of Knowledge & Attitudes*, and *Normalisation*. A thematic network diagram is displayed in Figure 7.4.

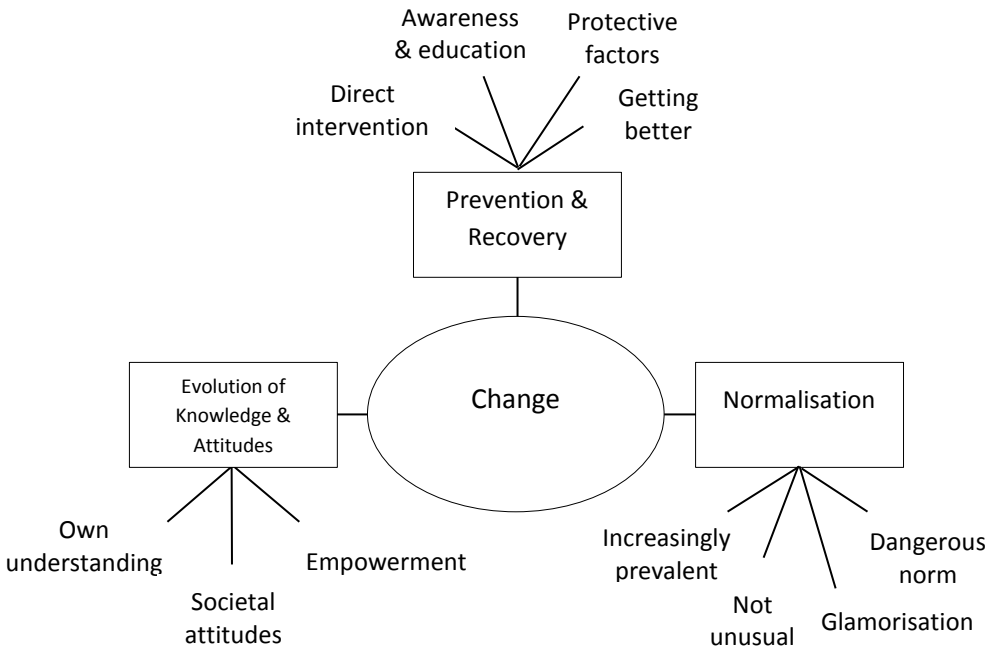

Figure 7.4: Thematic network diagram of the theme "Change"

Prevention & Recovery. The first sub-theme refers to SSHBs themselves, addressing how they might be changed, prevented or recovered from, and was endorsed by 28 participants (264 extracts). This sub-theme incorporates ideas around protection from and prevention of SSHBs, and responding appropriately to them when they arise. The prevention of and recovery from such behaviour was seen as the responsibility of both the individual to gain an understanding of their own behaviour, seek help and find alternative ways of coping, and of other people and society in general, to be vigilant of and responsive to individuals engaging in those behaviours, and to support them in their recovery.

Many participants believed that suicide and self-harm could be reduced or prevented through raising awareness and education; both with respect to the individuals who engage in those behaviours understanding their experiences and knowing how to access help, and to society at large recognising the problem and knowing what to do about it.

> "I think there should be more erm done in schools to- to make people familiar with this kind of behaviour so they can either get help themselves if it's themselves, or they can pick up on the behaviour of others around them." *Participant 22 (personal experience of SSHB)*

As discussed previously within the *Sympathy or Empathy* sub-theme of the *Attributions* theme (see section 7.5.2.3), a number of participants also referred to the need for direct intervention for people engaging in these behaviours, either through the provision of support by family or friends, or through accessing professional resources. In particular, some participants expressed the necessity for intervention to occur as early as possible, before things have had the chance to get too bad for the person.

> "I think maybe the preventative work should happen over a long time beforehand because you're only kind of damage limiting at the time, you're not necessarily fixing the problem… I think it's maybe early prevention […] recognising signs and symptoms earlier on." *Participant 12 (personal experience of SSHB)*

A number of protective factors were described, the existence of which was deemed likely to prevent an individual from engaging in SSHBs. Such factors were described in terms of personality characteristics or ways of thinking, alternative coping mechanisms, and the occurrence of events which change an individual's perception of the world at that time.

> "Maybe you see somebody that you haven't seen in a while or something and they make you feel happy again or something. Anything that can make you feel happy […] 'cause you could think that's actually something that I might want to kinda live for." *Participant 13 (no personal experience of SSHB)*

Finally, given that an individual has engaged in such behaviours, ideas around recovery and moving on were conveyed. These were expressed in terms of moving away from SSHB and becoming "well" again, and were specifically directed towards self-harm or non-fatal suicide attempts (for obvious reasons).

> "If somebody's only self-harmed, then you can kinda maybe… there's still a chance that they can get through it and they can get better off from it, whereas with suicide there's no chance of that." *Participant 11 (personal experience of SSHB)*

Evolution of Knowledge & Attitudes. The second sub-theme relates to the general changing of attitudes towards and the development of knowledge and understanding around SSHBs and represents a relatively small sub-theme, with only 21 participants expressing relevant views (58 extracts). The evolution of understanding and its shaping of attitudes towards

SSHBs is discussed, which for the most part, was seen to be heading in a positive, productive direction that would ultimately be beneficial to those affected.

Participants often alluded to how things are now in comparison to how they used to be, both with regard to their own and others' attitudes and understanding. For example, participants offered explanations of the evolution of their own understanding of SSHB, referring either to experience gained personally or through work or education, or to their maturing as an individual.

> "Before I worked with anyone with it, before erm I came across suicide […] as in personally, to people I knew or loved, erm I did think it was quite a selfish behaviour. Now however […] I just wish we could prevent it." Participant 12 (*personal experience of SSHB)*

Although many participants believed there was some way to go before SSHBs were treated with the appropriate concern, or before mental health was considered as important as physical health, it was commonly communicated that attitudes towards mental health in general were changing for the better.

> "It's maybe just getting to the point now where people are looking at it and realising that it's not just like, some daft teenager that just decides to cut themself 'cause they're unhappy about something. I think that was maybe the perception before but I think it's kinda moved on from that and people… it's kinda evolved." *Participant 24 (personal experience of SSHB)*

Related to this, was the perception that SSHB is talked about more than it used to be, such that it is easier for individuals who are suffering to talk about their problems and access the help that they need.

> "People [*are*] now being more open about it, so they're not kind of, like hiding away, they feel they can talk so if I've got friends who talk about it, I'll understand it more." *Participant 6 (personal experience of SSHB)*

Normalisation. The final sub-theme embodies ideas around SSHBs becoming the norm, and no longer being perceived as unusual, rare or deviant, as they may once have been. This sub-theme was endorsed by all 29 participants (239 extracts). Combining a number of features

from other sub-themes, *Normalisation* merges the perceptions that SSHBs are prevalent, non-discriminatory, widely publicised and in some groups, even considered desirable. A move was perceived towards a general acceptance that these are behaviours in which many people engage. Some concerns were raised regarding the impact that this might have on people, but generally, such normalisation was referred to in factual, non-emotive terms.

The increasing regularity with which such behaviours were perceived to occur, along with the ubiquitous media coverage, resulted in a general sense that such behaviours are "normal", widespread, and rising in prevalence.

> "I think it's not as rare as maybe other- some would think, because it happens to… some… always like err I think everyone knows someone who's engaged in that sort of behaviour, whatever the outcome." *Participant 15 (personal experience of SSHB)*

As touched upon in the *Uncontrollable Factors* sub-theme within the *Nature of SSHB* theme, participants often expressed the belief that *anyone* is susceptible to engaging in those behaviours, and that the individuals who do so are really no different from anybody else.

> "It can happen to anyone really, do you know what I mean? It's not… it doesn't single them out." *Participant 3 (no personal experience of SSHB)*

Some participants reported that SSHBs were often glorified, glamorised, or revered, by both the media and certain groups of people, such that they are sometimes seen as desirable behaviours to which people may aspire.

> "I think it's been portrayed like this in the media and [*inaudible*] not as bad as… it's portrayed as something you can aspire to in this- in our society… I think it's… some people see it as a desirable social behaviour." *Participant 15 (personal experience of SSHB)*

A number of participants explicitly stated that SSHB had become the norm, and some expressed concern over the impact this might have.

> "If it's portrayed as normal, I think you're more likely to engage in it, and if it's around you, or if you see it […] when you see it, everyone says it's ok, you're much more likely to do it as well." *Participant 15 (personal experience of SSHB)*

This overarching theme describes areas of change and evolution within the construct of SSHBs, with regard to both engagement in those behaviours and attitudes held towards them. The general feeling within this theme was that change is mostly positive, with individuals recovering and attitudes becoming more understanding and accepting. However, a danger was signposted in that attitudes of acceptance and implied approval may in fact exacerbate the problem.

7.5.2.5 Theme 5: Portrayal of Self

The final theme identified brings together those instances in which rather than talking about their perceptions and experiences of the topic in hand, participants communicate characteristics of their own personalities or behaviour, or appear to attempt to portray themselves in a particular way. Two sub-themes emerged within this theme; *Different to Others* and *Social Desirability*. A thematic network diagram of this theme is illustrated in Figure 7.5.

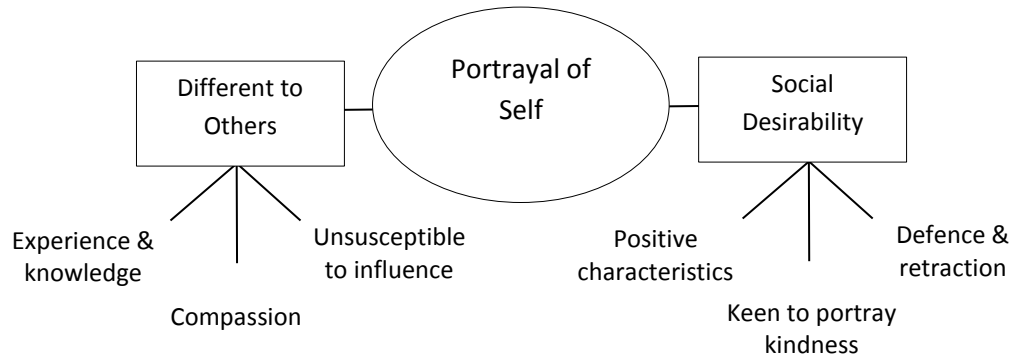

Figure 7.5: Thematic network diagram of the theme "Portrayal of Self"

Different to Others. In the first sub-theme which was endorsed by all 29 participants (345 extracts), participants depicted themselves as unique in comparison to others, asserting that their beliefs, attitudes and behaviour were dissimilar from those of others. Participants saw themselves as more knowledgeable and empathetic than the norm, and superior in terms of both thought and experience. In comparison, others were deemed relatively ignorant, judgemental and unsympathetic, although it was posited that this might change if others were ever to experience SSHB in their own lives.

Despite previous declarations by the majority of participants that suicide and self-harm are pervasive, and the fact that a number of them had never experienced exposure to such

behaviours themselves, many participants believed that they had a more extensive understanding of such behaviours than others, and were more familiar with the issues surrounding them.

> "I think a lot of people probably don't understand it, like, they don't see why people would want to do that, but obviously they've not experienced it […] I think's- it's something you've obviously got to go through to understand it fully […] Everyone I know kinda like… they don't really understand it 'cause they haven't been through it." *Participant 23 (no personal experience of SSHB)*

As a result of others' perceived lack of relevant experience, participants reported that others tend to lack compassion or any understanding of how people might be feeling. Others were perceived as judgemental or dismissive on account of their ignorance.

> "I think quite generally, people are quite ignorant towards it, which gives them a kind of… they don't understand so they don't really have any time to talk about it or think about it or anything like that." *Participant 27 (no personal experience of SSHB)*

Participants frequently chastised others for their negative attitudes or their lack of compassion, (despite on some occasions having expressed similar attitudes themselves), and referred to their own more empathetic or caring characteristics as an explanation for their divergent attitudes.

> "I think I'm probably a wee bit more easy-going about it than a lot of people I know." *Participant 24 (personal experience of SSHB)*

At times, other people were seen as similarly sympathetic as the participant themselves, but even then they were often denied any real understanding of the issues, or were perceived as not truly being as sympathetic as they made out.

> "I think everybody would feel […] that they don't understand it but they would be sympathetic towards it." *Participant 13 (no personal experience of SSHB)*

Finally, participants often implied that while others' attitudes towards suicide and self-harm were influenced by each other's and by the media, they themselves were uniquely resistant

to influence, and had either always held the views that they hold, or had developed them through education and experience.

> "I'm quite a strong- like, not that you're weak if somebody influenced you, I'm just- me personally, I'm quite a strong person and […] if somebody else didn't agree with me, it wouldn't deter me from what I was thinking." *Participant 29 (no personal experience of SSHB)*

Social Desirability. Overlapping slightly with the previous sub-theme but also incorporating novel aspects of the data, the *Social Desirability* sub-theme illustrates the apparent desire of participants to appear favourable and to avoid portraying themselves as judgemental or unsympathetic. All 29 participants endorsed this sub-theme (204 extracts). Within this sub-theme, participants frequently indicated (albeit not always explicitly) a desire to give a favourable impression, describing themselves in positive terms and offering statements consistent with such an impression. In addition, they often expressed concern when such an impression was perceived to be threatened by their communication of an inconsistent, potentially unfavourable view.

As touched upon above, participants often explicitly reported on their positive characteristics or their measured behaviour.

> "Just my own attitudes anyway, beforehand, which were more enquiring, just… [*sighs*] trying not to have an emotive response […] I try not to have that kind of response and think about it, I like to think before I make a judgement or act." *Participant 12 (personal experience of SSHB)*

It was regularly articulated that participants would like to gain a better understanding in order that they would be better placed to help people, and they occasionally seemed overly keen to make assurances that they were sympathetic and caring, even if at times they seemed to find it quite difficult.

> "I think that would depend on circumstance like, if there was a clear and kind of logical reason for them doing it, I could feel sympathy. If it's something a wee bit kind of trivial, I'd still feel sympathy but part of me would be thinking 'that was a bit silly', you know?" *Participant 14 (personal experience of SSHB)*

In particular, participants often made a relatively negative statement and then immediately retracted it or attempted to defend it, or prefaced a comment with a warning that what they were about to say might sound bad, but that was not how it was intended. Sometimes they explicitly stated that they did not wish to sound "bad", or expressed unease at sounding negative.

> "Although it's your right to do- to do either of those things, I don't think that it's a normal way to think […] to cope with something by harming yourself, or to… or to decide to commit suicide […] I don't think it's normal [*laughing*] […] I feel bad, I don't want it on the tape but… [*laughs*]" *Participant 24 (personal experience of SSHB)*

The overarching theme demonstrates participants' desire to differentiate themselves from others, and to portray a uniquely positive image of themselves as experienced, knowledgeable and compassionate. Others' behaviour and attitudes were portrayed as less favourable and less educated in comparison, and participants showed signs of unease when they inadvertently expressed views which they believed portrayed them less favourably.

7.6 Discussion

The aim of the current study was to explore the meanings behind the perceptions observed in Study 1 (and 2, albeit within a different population), and to gain a deeper understanding of how SSHBs are conceptualised within an undergraduate population. It is believed that this aim was achieved, with participants providing rich data around a range of issues identified in Studies 1 and 2. It is believed that the current study significantly contributes to the interpretation of the findings of Studies 1 and 2 (Chapters 5 and 6, respectively), and to the literature in general, as discussed below. The data set represented a rich assortment of firmly- and not so firmly-held beliefs, emotionally-charged experiences, naive hearsay, self-conscious uncertainty and pursuit of social approval, which it is believed provide some explanatory context for the findings of Study 1 (and possibly 2), and contributes to our knowledge of how SSHBs are viewed and made sense of, within a student population. In particular, it is believed that the commonly expressed contradictions and uncertainties demonstrate the complexities of the issue in question, and imply concern for the image one portrays when discussing issues of potentially emotional or ethical importance.

Despite recruitment from the same population, participants in the current study reported slightly lower rates of SSHB than the undergraduates in Study 1 (Chapter 5), but the differences were not significant. It is possible that the face-to-face nature of the current study compared to the total anonymity of Study 1, had a small effect on reporting, but given that participants' own behaviour was reported via a short questionnaire which was completed without the researcher's input, and that rates reported in the current study are closer to what would be expected based on previous research and official statistics (see Chapter 1), this seems unlikely. Participants were also slightly older than those in Study 1, so this may also have impacted on reporting (particularly as self-harm was found to be negatively associated with age in Study 1 – but only self-harm), but again, the difference in ages was not significant.

7.6.1 Interpretation of themes

7.6.1.1 Theme 1: The Nature of Suicidal & Self-harming Behaviour

Unsurprisingly given some of the questions asked, a theme was identified which incorporated participants' description of, and perceived explanations for, SSHBs. Participants were forthcoming with their causal attributions – despite many of them apparently possessing little knowledge or experience of SSHB – and individuals often identified a range of distinct, overlapping and even apparently contradictory features. Nevertheless, the perceived causes for suicidal behaviours were similar to those identified in previous survey-based research, including depression, hopelessness, social isolation, abuse, relationship problems, social influences and adverse life experiences (Nelson, Farberow & Litman, 1988; Schwartz, Pyle, Dowd & Sheehan, 2010; Westefeld, Homaifar, Spotts, Furr, Range & Werth, 2005). The current author was unable to locate any literature which explores students' perceptions of non-fatal self-harming behaviours specifically, so it is believed that the self-harm-specific findings of the current study (e.g., that it is perceived to be employed to avoid suicide, is particularly damaging to others, and is on a spectrum of behaviours leading to eventual suicide) offer a unique contribution to the literature.

7.6.1.2 Theme 2: Experiencing Suicidal & Self-harming Behaviour

Participants reported a mixture of knowledge and experience of SSHB ranging from personal experience, through witnessing such behaviour in loved ones or hearing about it in others, to reporting no knowledge or experience whatsoever. Regardless of whether or not they reported any experience, the majority of participants tended to believe that such behaviours are common, with a large proportion of people stating that they are probably

more common than people think. On the face of it, this perception follows the pattern that would be expected based on social norms theory; that people believe that other people disproportionately behave in negative or damaging ways. In particular, there was a common perception that whilst SSHBs are common generally, they are uncommon in people that participants know specifically. This is in support of previous research which has indicated that people tend to believe that suicide is something that affects other groups; not groups to which they belong (Early & Akers, 1993), and that suicide is a major problem but not within their own community (Schwartz, Pyle, Dowd & Sheehan, 2010) or on their own university campus (Westefeld, Homaifar, Spotts, Furr, Range & Werth, 2005). Such claims may further represent the disproportionate tendency of individuals to perceive differences between in-group members and out-groups (social identity theory; Tajfel & Turner, 1979; self-categorisation theory; Turner, Hogg, Oakes, Reicher & Wetherall, 1987), as discussed in Chapter 5. This particular finding also concurs with the discrepancies between perceived and reported norms observed in Study 1 (and Study 2).

Despite relatively common initial reporting of knowing someone who has engaged in SSHB, upon further interrogation many participants disclosed that their "knowledge" was based on assumptions made about perceived signs, or derived from communication with a third-party. Relatively few participants actually reported certainty regarding the occurrence of such behaviours in others, engendering the possibility that those participants' reports were open to error. People's perceptions of warning signs have previously been shown to lack accuracy (Norton, Durlak & Richards, 1989), and the transmission of information via third-parties (or *gossip*) has been shown to serve a number of functions (Sommerfeld, Krambeck, Semmann & Millinski, 2007); including enforcement of positive group norms and disparagement of behaviours which are seen as deviant from the norm (Kniffin & Wilson, 2005). As such, perceived warning signs and third-party accounts may not provide reliable normative information, resulting in inaccurate reporting, and people's perceived expertise may be overestimated.

When participants' perceptions of SSHBs were indisputable (e.g., in the case of the loss of a loved one through suicide), they tended to report subsequent instances of similar behaviours in numerous others. Although it is impossible to confirm the accuracy of these reports, given the relative rarity of such behaviours in general and the lack of concrete experience reported by the majority of their peers, it is possible that initial exposure to relevant behaviours contributed to these participants' subsequent overestimations of similar behaviours. This would support Perkins' (1997) theory that increased normative perceptions result from

exposure to notable incidences of a rare behaviour, and is in line with the social norms research indicating that groups in which a behaviour is particularly prevalent may be especially prone to overestimation of perceived norms (e.g., alcohol consumption in fraternities and sororities; Baer, 1994; Larimer, Irvine, Kilmer & Marlatt, 1997). It is of course entirely possible though, that those participants had actually experienced more relevant occurrences than their peers.

Participants' acknowledgement of how the SSHB of others may affect the people around them (see *Impact* and *Emotion*) and their associated concern regarding how that of people they know might affect them specifically, can perhaps be explained with reference to a combination of two socio-cognitive biases. As discussed in Chapter 5, optimism bias (Weinstein, 1980) may result in a reduction in individuals' perceptions of the likelihood of their own engagement in SSHBs (a notion which is supported by the findings of Study 1), such that when considering the impact of such behaviours, individuals may focus solely on such behaviour in others. In addition, evidence suggests that undergraduates may be prone to a "self-as-target bias" (e.g. Fenigstein, 1984), which causes them to believe that others' actions are disproportionately directed towards them and external events are disproportionately relevant to them. These two biases in combination may have led the current sample to interpret others' SSHB in terms of how it impacts upon them, and in turn, how such behaviours generally impact upon other people, with relatively little attention paid to the impact experienced by the affected individuals themselves.

7.6.1.3 Theme 3: Attributions

A number of attributions or judgements were conveyed about those who engage in SSHBs and about society's view of them, and these varied widely both between and within participants. Similar contradictions to those observed within *The Nature of SSHB* were also observed within *Attributions*, with participants often simultaneously expressing sympathy and judgement, or indicating concurrent feelings of acceptance and disapproval. Attitudes towards and perceptions of such behaviours have been shown previously to vary *between* individuals (e.g., Domino, Gibson, Poling & Westlake, 1980; Domino & Leenaars, 1989), but to the author's knowledge, no literature exists evidencing the contradictory nature of beliefs *within* an individual. Many of the attitudes expressed by the current sample were similar to those found in previous studies. For example, previous research has identified similarly supportive or sympathetic attitudes in young people, including ideas around the seriousness of SSHBs, recognition that they indicate that a person needs help, and the assertion that others' perceived beliefs that such behaviours are attention-seeking or

manipulative, are incorrect (Domino & Leenaars, 1989; Schwartz, Pyle, Dowd & Sheehan, 2010). The more negative attitudes expressed by the current sample have also been shown previously in a range of populations, including the belief that suicide is cowardly, that it is attention-seeking and not a real cause for concern, and that it would be difficult/futile to try to help someone who engages in such behaviours (Anderson & Standen, 2007; Etzersdorfer, Vijayakumar, Schony, Grausgruber & Sonneck, 1998; Kocmur & Dernovesek, 2003; McAllister, Creedy, Moyle & Farrugia, 2002). Although the current study is not intended to be generalisable to other populations, its similarity with previous findings around attitudes at least suggests that the current sample were not unusual in their beliefs.

The sometimes blaming or judgemental attributions made towards SSHBs and those who engage therein, are again, on the face of it, in line with what might be expected based on traditional social norms research; i.e. that people believe that others behave in negative or damaging ways. In further keeping with previous social norms findings, actor-observer biases which have been observed within other behavioural domains (Jones & Nisbett, 1971; see Chapter 3) have similarly been observed within the field of suicide. Goggin, Range and Brandt (1986) demonstrated that people tended to attribute situational causes to their own suicidality, whist others' suicidality was deemed the result of personal factors. Using previous social norms research as a model, one might reasonably take this to mean that individuals view suicide in a negative light, such that their own engagement therein would be attributable to external variables, whilst others' engagement is explained by some kind of deviance within them personally. However, the existence of simultaneous expressions of positive or sympathetic attributions is contrary to what one might expect based on social norms theory (or the actor-observer bias literature), and suggests that perceptions of SSHBs may not be quite as straightforward as those of other behaviours.

The contradictory beliefs expressed about SSHBs is perhaps consistent with the suggestion in Chapters 5 and 6 that normative perceptions around these behaviours differ from those previously observed in other domains, on account of their relative complexity and emotional significance. Although not entirely without exception, previously studied behaviours such as alcohol consumption or drug use may be more widely accepted and considered more "normal", with evidence suggesting that such behaviours are considered part of the standard socialisation process from childhood to adulthood (e.g., Schwartz, Pyle, Dowd & Sheehan, 2010; Sharp & Lowe, 1989), and that young people engage therein predominantly for social and leisure purposes (e.g., Kloep, Hendry, Ingebrigsten, Glendinning & Espnes, 2001). Conversely, SSHBs are more often considered reflective of mental ill-health or other

problems (as discussed in section 7.6.1.1), and are not considered something which tends to occur locally, within an individual's own social environment (as discussed in section 7.6.1.2). As such, the development of an individual's view of or beliefs about SSHB is likely to result from a more intricate evaluation of the various issues involved. Additionally, such behaviours are arguably more complicated than others studied within social norms, in that the disadvantages of those other behaviours (e.g., alcohol consumption, smoking) are likely to be restricted to health-related adverse outcomes (e.g., liver damage, lung damage), whilst outcomes of SSHBs can be multifaceted and far-reaching (e.g., Lindqvist, Johansson & Karlsson, 2008; Linke, Wojciak & Day, 2002; Platt, McLean, McCollam, Mackenzie, McDaid, Maxwell, Halliday & Woodhouse, 2006; see Chapter 1). Domino, Gibson, Poling and Westlake (1980) posit that the complexities of belief around suicidal behaviour exist because "suicide is intimately related to religion, personal values, one's view towards mental illness and a person's very self-concept" (p130). It is arguably unlikely that less complicated behaviours should undergo similar multidimensional analyses.

Perceptions that SSHBs are generally seen in negative terms and are prone to stigmatisation have been shown previously (Walker, Lester & Joe, 2006), and their existence is perhaps unsurprising given the perceived association with mental ill-health; something which is consistently perceived to be the subject of stigma (Golberstein, Eisenberg & Gollust, 2008). The contradictions within participants' attitudes might in part be explained by these perceptions of stigma and negativity, in that they may be reluctant to express exclusively positive or supportive attitudes through fear of being stigmatised or looked down upon themselves. Evidence in support of this suggestion can be gleamed from a study in which students reported that while they would seek help on behalf of others who were suffering with suicidality, they would be unlikely to seek help themselves because of the associated stigma, and through fear of appearing weak or "mental" (Curtis, 2010). Alternatively, the observed contradictions and expression that negative norms exist may in fact indicate that participants themselves secretly held more predominantly negative views than they were willing to disclose, perhaps through concerns about appearing heartless or unsympathetic, and that their articulation of others' negativity towards those affected may reflect their own implicit attitudes. It has previously been argued that individuals who possess a potential source of stigma are motivated to keep it hidden (Goffman, 1963), and that doing so may result in preoccupation with those stigmas and their projection onto others (Smart & Wegner, 1999). For the purposes of the current study, negative or judgemental attitudes may be perceived to represent a source of stigma (at least amongst others who value more sympathetic or caring views), and participants' attempts to keep these hidden might have

resulted in their disproportionate focus on such attitudes, and their projection of those attitudes onto generic "others". The desire to appear favourable through expression of socially desirable attitudes is discussed further in *Portrayal of Self* (section 7.6.1.5, below).

Although it was hoped this might be explored, whether or not participants' attitudes and attributions were related to their specific experience or knowledge of others' SSHB was beyond the scope of the current study, and the predominance of participants responding affirmatively to questions regarding their having known someone to engage in such behaviours, made it difficult even to infer a link (as most people claimed knowledge and/or experience). However, previous research suggests that whilst knowledge of suicide may not necessarily impact one's ability to respond appropriately or provide assistance, those with negative attitudes towards suicidal behaviour are less likely to respond sensitively or to seek help when confronted with such behaviour (Norton, Durlak & Richards, 1989), which could clearly have a negative impact on those individuals who are already at risk. In addition, it has been shown that positive or accepting attitudes towards suicide are related to suicidal ideation (Stein, Brom, Elizur & Witztum, 1998), so individuals' attitudes or level of approval or suicide may represent an important factor both in determining their own risk for subsequent suicidality, and in exacerbating (or at least failing to reduce) risk in others.

7.6.1.4 Theme 4: Change

The fourth theme combined participants' thoughts on prevention and treatment of SSHBs with ideas around changes in the way in which those behaviours are generally viewed. Despite a small number of participants previously conveying a belief that it is no one's responsibility (but the individual's own) to help people who engage in those behaviours, the majority of participants referred to the importance of increased social support, increased education and awareness, and possibly professional intervention, in reducing such behaviours. Suggestions made for what might be done to prevent such behaviours or to aid people in their recovery were thus similar to those identified in previous research (e.g., Nelson, Farberow & Litman, 1988; Schwartz, Pyle, Dowd & Sheehan, 2010). The degree of discussion around intervention and prevention, despite a proportion of participants denying its necessity, is arguably further indicative of the mixed and often contradictory nature of individuals' views on SSHB. Stein, Brom, Elisur & Witztum (1998) suggest that this apparent contradiction in views may be because "although they [*i.e. participants*] support the right of individuals to live as they choose, suicide is so threatening an event that it supersedes that right and obliges society to take action" (p199). Further, despite prevalent reports that social support is necessary and that participants themselves would be keen to

help someone experiencing these issues, young people have previously been shown to be find it difficult to respond to such behaviours sensitively or appropriately (Norton, Durlak & Richards, 1989), with many failing to take any action at all (Kalafat & Elias, 1992).

The perception that knowledge and attitudes are evolving was viewed in mostly positive, but also negative terms by different participants. There did not appear to be any explanatory pattern for these opposing views in terms of other expressed beliefs or experiences, but it seems likely that whether changes in attitudes towards SSHBs were perceived as positive or negative, was probably a result of individual exposure to the expressed views and experiences of people around them. However, to the current author's knowledge, no previous literature exists around this so interpretation is entirely speculative. The view that SSHBs are becoming increasingly normative however, has been touched upon by previous literature. Domino and Leenaars (1989) demonstrated that Canadian students perceived suicide to be a normal part of life, and did not conceptualise it as a result of mental illness or other defects. In addition, a possible age-related trend has been identified with regard to perceptions of the normality of suicide, with younger generations showing more acceptance than older generations (Boldt, 1982-83). Such findings suggest that suicidal behaviours may well be increasingly considered "normal" behaviours.

7.6.1.5 Theme 5: Portrayal of Self

The final theme showed participants apparently attempting to portray themselves in a certain way, with responses less relevant to the actual topic of the interview, and more focused on how they themselves wished to be perceived. Participants overwhelmingly depicted themselves as different (superior) to others, and as knowledgeable, experienced, generous and sympathetic, even in the face of contradictory information (such as comments indicating a lack of sympathy or experience). It is believed that these findings are indicative of two distinct features: one, that participants strove to promote a positive self-image and appear socially favourable; and the other, that participants held complex and somewhat disorganised views around SSHBs, which at times they struggled to untangle or to consolidate.

It is not unusual to find that individuals consider themselves unique or different to others, and this tendency has previously been posited in partial explanation for some of the patterns observed within social norms research. As discussed in Chapter 3, pluralistic ignorance refers to the tendency to believe that one is privately different to others, even if one behaves in similar ways (e.g., Miller & Prentice, 1994; Prentice & Miller, 1993, 1996), and the actor-

observer bias similarly refers to the belief that others' observable behaviour is indicative of dispositional features, whilst one's own behaviour is situation-dependent (Jones & Nisbett, 1971). It seems probable that participants in the current study displayed such biases with regard to their own attitudes and experience regarding SSHB, compared to others'. Both studies 1 and 2 of the current thesis (Chapters 5 and 6, respectively) demonstrated individuals' tendency to perceive themselves differently to others in terms of their attitudes towards, and likelihood of engaging in, SSHBs, and further evidence for such self-other discrepancies was identified in the current study. Previous research has also demonstrated individuals' tendency to believe that others are more susceptible than they are themselves, to social influence over suicidal behaviour (Scherr & Reineman, 2011), so the current participants' desire to differentiate themselves from others in this regard is perhaps unsurprising.

It is also not unusual that individuals should seek to present themselves in favourable ways, as enhancement of others' perceptions of an individual can increase self-esteem and feelings of self-worth (e.g., Epstein, 1973; Tesser, 1985). Expressing socially accepted attitudes, highlighting one's superior knowledge and experience and covering up one's less desirable attributes may all help to promote a positive self-image which encourages more favourable evaluations (of oneself) by others, thus increasing one's self-esteem (Crown & Marlowe, 1964). As discussed earlier, individuals may actively engage in concealment of features which they believe are seen as socially undesirable or are potentially stigmatising (Goffman, 1963), and the desire to please and to avoid causing offence can represent a particular source of anxiety (Crown & Marlowe, 1964). If participants in the current study believed that their less sympathetic attitudes would be disfavoured, they may have sought to conceal or at least justify them, and despite the researcher's attempts to remain neutral during interviews, face-to-face discussion around SSHB with a researcher who is clearly interested in suicide prevention, may have resulted in an especially heightened concern for saying the "wrong thing".

In addition to issues around social desirability, the often contradictory accounts which participants provided (e.g., that on one hand, those who are suicidal should be helped but on the other, it is their choice to make) further suggests an internal struggle with what to think, and once again highlights the complexity of the issue in question. Although it has been argued that individuals strive for consistency and predictability in their social interactions (self-consistency theory; Lecky, 1945), their concurrent desires to be viewed positively (e.g., Epstein, 1973; Tesser, 1985), may at times conflict with that goal (as may have been

observed within the current study), potentially forcing the individual to favour one over the other. Researchers have evidenced however, that both self-consistency and self-enhancement may be pursued simultaneously, with cognitive reactions corresponding to the former, and affective reactions conforming to the latter (Swann, Griffin, Predmore & Gaines, 1987). In terms of the current findings, it is possible that this effect manifested as participants' arrival at one attitude (e.g., that SSHB is a choice and does not require help) through cognitive appraisal and the pursuit of self-consistency, and at its opposition (e.g., that someone who is suicidal needs help) via an affective response and the pursuit of self-enhancement. Indeed Swann et al. (1987) argue that cognitive and effective responses are quite independent of each other.

7.6.1.6 Relationships between themes

The themes and sub-themes identified by thematic analysis showed considerable overlap with each other, and items within themes appeared to relate closely to items within other themes, and in some cases, might even have underlain them. It was clear, for example, that a number of ideas around the causes and development of SSHB (see *Theme 1: The Nature of SSHB*) informed individuals' subsequent attributions (see *Theme 3: Attributions*). Ideas around blame and negative judgement appeared to be related to those causes which were perceived to be brought on by the individual, or that framed SSHB as deliberate and rational, whilst sympathy and compassion were apparently associated with the less controllable causes and notions of SSHB as pertaining to some kind of illness or deficiency. In addition and perhaps unsurprisingly, uncontrollable or dispositional perceived causes, as well as those related to despair, apparently informed ideas around individuals' lack of understanding of or responsibility for their actions. Similarly, attributions made about the rightness/wrongness of SSHBs (see *Theme 3: Attributions*) and their controllability fed into ideas around prevention and treatment of SSHB (see *Theme 4: Change*). Comments referring to SSHB as a symptom of illness or a problem for which individuals are not to blame, showed apparent relationships with statements that individuals should receive support and treatment, and assertions that society has a responsibility to inform themselves so that they might take care of affected individuals. Conversely, ideas around blame and responsibility for one's own behaviour were related to denial of the necessity for the provision of help by others, and assertions that it is the responsibility of individuals to help themselves. Despite these apparent associations, the variability of and contradictions between responses – both between and within individuals – means that although associations appeared to exist between certain beliefs, it was not possible to categorically link the existence of any one belief directly with the development of any other.

A number of interesting contrasts and contradictions were also identified. Remarkably, perceived causes and factors affecting the development of SSHB (see *Theme 1: The Nature of SSHB*) and attributions around their rightness/wrongness (see *Theme 3: Attributions*), appeared relatively independent of reported knowledge or experience of SSHB (see *Theme 2: Experiencing SSHB*). Contrary to what one might intuitively expect, those both with and without reported personal experience of or exposure to SSHB endorsed comparable causal factors, and expressed similar proportions of positive and negative views. Further examination sometimes revealed that reported experiences were not always as tangible or as definitive as participants' believed, whilst other participants who initially denied any experience with SSHBs subsequently revealed experience that they had not considered as such, so it is difficult to categorically determine those with and without experience. Based on self-reports though (i.e. participants' own perceptions of their experience), perceived causes and moral and responsibility judgements were unrelated (necessarily) to experience.

In addition to contradictions observed between accounts both within and between participants, a notable contradiction was observed between some of the identified sub-themes; namely, between beliefs about how general understanding and perceptions of SSHBs are changing (see *Normalisation* within *Theme 3: Attributions*, and *Evolution of Knowledge & Attitudes* within *Theme 4: Change*), and in how they are perceived by society in general (see *Norm of Negativity* within *Theme 3: Attributions*). Within the former two sub-themes, SSHBs were perceived as having become more mainstream and better understood than they previously have been, resulting in individuals feeling more able to talk about their experiences or to seek help. In the latter however, society in general was perceived as holding negative attitudes which stigmatise individuals and presents barriers to help-seeking. Again, these ideas were at times expressed by the same participants, further illustrating the common existence of contradictory beliefs within this domain.

Finally, participants' portrayal of themselves (see *Theme 5: Portrayal of Self*) both overlapped and contrasted with other themes throughout the analysis. For example, items within *Theme 1: The Nature of SSHB* and *Theme 3: Attributions* often corresponded with participants' portrayal of themselves as sympathetic and concerned for the well-being of those affected by SSHB, and items within *Theme 2: Experiencing SSHB* often corresponded with participants' portrayal of themselves as expert, or at least more knowledgeable than average. Additionally, the *Norm of Negativity* sub-theme (see *Theme 3: Attributions*) further fed into participants' perception that they were more sympathetic, sensitive and level-headed

than the rest of society. However, in each of these cases, contradictory information existed, but was apparently ignored. The majority of participants appeared keen to portray themselves as both knowledgeable and compassionate, regardless of the level of experience they reported or of their perceived causes or reasons for SSHB. For example, those claiming to have relatively little or no experience of or exposure to SSHB often nevertheless spoke confidently about various aspects of those behaviours, and those who had posited manipulative or trivial reasons for engagement in SSHB often nevertheless expressed their sympathy and a desire to help. Individual participants were apparently able to hold somewhat pejorative views and make negative attributions, whilst simultaneously perceiving themselves (or at least *portraying* themselves) as understanding, generous and compassionate. Whilst at first glance this seems counter-intuitive, previous research has shown that humans are adept at justifying their negative choices and holding apparently opposing viewpoints (cognitive dissonance; Festinger, 1957), and these observations in the current context may demonstrate internal conflict between opposing beliefs.

The diverse, varying and often inconsistent perceptions and beliefs about SSHBs identified by the current study highlight the complexity and variability of individuals' conceptualisation of those behaviours, and suggest that willingness to express one's views may be changeable and subject to internal conflict. Findings suggest that individuals undergo a highly complicated cognitive-affective process in the development of their personal perspective, despite which, their views may remain incomplete or contradictory, and may be subject to context-dependent change as a result of perceived social expectations.

7.6.2 Strengths and limitations

The current study has a number of strengths, but is also susceptible to some potential limitations. Firstly, a rich and varied data-set was obtained, ensuring that a mixture of views was captured and that data/theoretical saturation was achieved. This data was useful in both confirming many of the main findings of Studies 1 and 2, and in expanding upon and helping to interpret some of the findings of Study 1 (and potentially Study 2). As discussed in Chapter 4, the use of mixed methods enabled a more detailed and thorough interpretation of the observed phenomena than is possible through the use of just quantitative or qualitative methodology in isolation. An additional, related benefit of the current study is that it represents an addition to the relatively rare qualitative social norms evidence base. The majority of social norms research to date has been quantitative, which while extremely informative, is limited in its ability to access more in-depth, convoluted features of the

available data, and is unable to follow up and expand on items of interest. The current study contributed to increasing our understanding of some of the cognitive and affective processes underlying the development of normative perceptions, thus representing an interesting contribution to the overall literature.

Perhaps unsurprisingly (on account of the novelty of the study) some challenges were faced in the design and utilisation of the interview schedule. The schedule was designed from scratch, aiming to address some of the questions raised in Study 1, and no previous literature was available to inform its design. As such, challenges were met in terms of identification of the most appropriate questions to access the desired information, and of designing questions which were necessarily quite complicated, but that participants were able to understand. For example, Study 1 highlighted an apparent discrepancy between the way in which the SSHBs of proximal groups were perceived relative to those of distal groups, but it was not immediately clear how explanations for this might be elicited. Similarly, differences were also apparent between the way in which injunctive norms and descriptive norms related to reported norms, but again, it was difficult to envisage how this issue might be further investigated. Questions were therefore designed based upon issues identified in the general literature around perceptions of SSHB, resulting in questions pertaining to prevalence, causes, motivations and influences. In addition, questions which asked participants about their perceptions of other people's perspective on each of those things were included, in order to access normative perceptions. Had time allowed, a study to pilot the schedule may have been beneficial, but it is believed that the schedule nevertheless proved adequate in eliciting relevant data, particularly given the exploratory nature of the study. Further, and as was noted in previous chapters, the wording of questions regarding social norms can be longwinded and somewhat more complicated than is ideal (e.g., asking what people think about what people think), and the design of questions within the current study was no different in this respect. However, the opportunity afforded by the semi-structured design, to clarify meaning and to provide prompts where necessary, was invaluable, such that it is possible to be reasonably confident that meaning of questions was well-understood by participants of the current study.

In order that participants were fully informed about the potentially sensitive content of the study, advertising materials explicitly stated that interviews would focus on SSHBs. This may have resulted in an increased proportion amongst those who volunteered to participate, of individuals with particularly strong views, or those who believed that their knowledge or experience were particularly useful or interesting. Although a qualitative study such as this

is not intended to fully represent the population from which participants are recruited, it is possible that such overt advertisement rendered the sample even less so than might normally be the case. However, the range of views and experiences that were captured suggests that this was not necessarily the case, particularly given that many of the current findings support those of Study 1 – which was less overtly SSHB-focused. A related limitation – similar to that identified in Study 1 (Chapter 5) – is the relatively "psychologist-heavy" sample which was inadvertently recruited. 65.5% of the current sample studied psychology, at least in combination with another subject, and many more studied other social sciences, such as social work and education. Given the topic of interest, it is possible that those studying subjects relating to human health or well-being may provide different data than might have been collected from non-social scientists. Again, the current study was not intended to be fully representative of the population it sampled, but potential biases relating to perceived knowledge or heightened interest may further impede the generalisability of the current findings. As was the case in Study 1, efforts were made to recruit from across the entire university, but it is perhaps to be expected that those with a particular interest in the topic should be found within the same department that the research was conducted.

For practical reasons, some of the processes which can be put in place to increase the quality and accuracy of qualitative research were not utilised in the current study, and this may have impacted upon the reliability and validity of the findings. The study was predominantly conducted during the spring academic term, after which, students are absent from the university for several months. Although member-checking was employed throughout the interviews (through continually checking that responses had been accurately understood), it was impossible to employ full member-checking (the process whereby participants provide feedback on the extent to which the final report reflects their experiences) on account of participants' absence post-analysis. In addition, given the constraints associated with PhD research, it was also unfeasible to have codes and themes validated and confirmed by an additional researcher, as would have been desirable. Nevertheless, it is believed that conscientious adherence to Braun and Clarke's (2006) guidance on conducting thematic analysis, along with the upkeep of a thorough and transparent reflective journal (see Appendix U), ensured that analysis was conducted as objectively as possible, so concerns around validity and reliability are minimal.

A final limitation which potentially impacts upon interpretation of the current findings, relates to one of the identified sub-themes; namely, *Social Desirability* (within the *Portrayal of Self* theme – see sections 7.5.2.5 and 7.6.1.5). As mentioned in section 7.6.1.5, the

possibility exists that participants offered responses which they believed would result in their being viewed favourably, or that would avoid their causing offence. It has been noted elsewhere that much research employing self-report methodology is susceptible to biases attributable to social desirability (e.g., Van de Mortel, 2008), but this is perhaps a particular concern within the current study given that the topic of interest was arguably a controversial or provocative one. Further, despite the researcher's efforts to appear neutral and impartial during interviews, the fact that their doctoral research focused on suicide clearly signifies that it is a topic in which they are invested, potentially amplifying participants' already present desire to avoid causing offence. However, alongside their more sympathetic or accepting views, many participants *did* express negative or disapproving views of SSHBs, and others still expressed almost entirely negative views, so social desirability certainly did not constrain the expression of any negative views whatsoever. As such, it is believed that such views were nevertheless captured to a reasonable extent.

7.6.3 Future research directions

Although the findings of the current study have been discussed with regard to perceptions of SSHBs in young people generally, the sample of course consisted solely of undergraduate students, such that the findings may not be generalisable to non-student groups or younger groups. Given that the findings of Study 1 (Chapter 5) differed slightly to those of Study 2 (Chapter 6), and that previous research has indicated that adolescents may be more negative in their views SSHB than student populations (e.g., Domino, Gibson, Poling & Westlake, 1980; Norton, Durlak & Richards, 1989), a similar study exploring the beliefs behind the development of normative perceptions in adolescents may be particularly beneficial. Moreover, alternate literature has also indicated that younger generations may be more accepting of suicidal behaviour than older generations (Boldt, 1982-83), suggesting a somewhat bell-shaped curve in attitudes. Generally speaking, age-related changes in suicide risk tend to loosely follow a U-shaped curve (e.g., ONS, 2014; WHO, 2014; see Chapter 1), so these opposing patterns further argue for the investigation of associations between variables, in order that all possible avenues for intervention or prevention are explored. A comparative cross-sectional study of different age-groups' attitudes and behaviour might yield interesting findings.

It would also be interesting to explore in greater depth some of the themes identified within the current study. Specifically, one of the features identified within the *Attributions* theme arguably warrants particular attention. Under the sub-theme of *Norm of Negativity*,

participants frequently described a general culture of disapproval and judgement around SSHBs, whereby society's damning attitudes potentially damage affected individuals further and reduce their likelihood of recovery or of seeking help. Although a proportion of the sample reported their own engagement in SSHB at some time in their lives, it is unclear whether this experience was at all related to these perceptions. A study exploring whether those who currently engage in SSHBs perceive a similar culture of negativity towards them, and whether this has any impact on their behaviour or their desire/ability to seek help, may be beneficial in terms of improving our understanding of recovery and barriers to help-seeking. A potential future social norms study based on these ideas is discussed in more detail in Chapter 8.

The current study also identified some potential areas for future research more generally (i.e. not just within the field of suicide and self-harm). In particular, the *Attributions* theme and the *Portrayal of Self* theme consisted of a number of interesting, unexpected and often contradictory ideas, a deeper comprehension of which may help to improve our understanding of normative perceptions in general. It is only through the current study's qualitative methodology that the observed contradictions were identifiable, so it is possible that similar incongruities might have existed within previous social norms research, had they been investigated – particularly with regard to behaviours which are similarly neither indisputably positive or negative (e.g., drug use). Teasing out the true beliefs behind contradictory responses and exploring the reasons for those contradictions may help to improve understanding of social norms within this and other domains, and to streamline social norms research methodology in general. In addition, further exploration of factors contributing to biases caused by social desirability may help to reduce such biases in future self-report research, thereby improving the quality of the research.

7.6.4 Conclusion

The current study identified a number of features which appear to contribute to undergraduates' normative perceptions of SSHBs. Across all identified themes, responses differed widely between and even within participants, demonstrating a diverse range of views and experiences, but also a number of incongruences and ambiguities within participants' individual views. A broad range of overlapping and sometimes contradictory reasons and causes were identified for the aetiology of such behaviours, and no participant identified any one necessary and sufficient variable. A range of experiences were also recounted, although upon closer inspection, many of these were revealed to be intangible or

based upon unfounded information garnered through third-parties, suggesting that undergraduates may overestimate their experience of and/or expertise in the area. Arguably most significantly for the purpose of the current thesis, a number of attributions were made regarding the acceptability or unacceptability (or the "rightness" or "wrongness") of engaging in SSHBs, but again, these were not clearly distributed amongst participants, with most expressing a spectrum of contrasting views. However, the perception that society (i.e. other people in general) feel negatively towards such behaviours, was ubiquitous. Despite this, there was a widely-held belief that both SSHBs, and attitudes towards them, are subject to change, with a general (though not unanimous) feeling that increased awareness, understanding or exposure fostered positive change. Finally, all of the above was communicated within the context of participants' apparent keenness to appear favourable, and to distinguish themselves as different from others. It is thus clear that the beliefs and experiences which result in undergraduate students' normative perceptions of SSHBs are intricate and convoluted, and may result from a combination of the complexity of the issue, and a desire to obtain social approval.

7.7 Summary

Thematic analysis of semi-structured interviews with undergraduate students revealed five major themes; *The Nature of SSHB*; *Experiencing SSHB*; *Attributions*; *Change*; and *Portrayal of Self*. It is believed that these themes help to explain the unusual patterns of perceptions observed within Studies 1 and 2, in that they highlight the complexity of issues surrounding SSHBs, including a wide range of perceived causal factors, competing beliefs about motivations and personal responsibility, and differing personal values. Apparent concerns for social desirability when discussing serious issues with emotive or ethical undertones were also identified. The following (and final) chapter brings together the findings from all three studies, discusses them with regard to theory and previous research, considers their practical implications, and proposes future research directions within the field.

Chapter 8

General Discussion and Conclusions

8.1 Overview of Main Findings

The current thesis explored the normative perceptions of SSHBs in high-risk populations (adolescents and university students), with the aim of determining whether the social norms approach, which has been used effectively to reduce health-damaging behaviours in other domains, might be applicable to the reduction of SSHBs. The overall findings suggest that the social norms approach may well be relevant to SSHBs, but that observed patterns differ somewhat from those observed within other behavioural domains.

A comprehensive literature review (reported in Chapter 2) indicated strong associations between children's and adolescents' SSHBs and those of people they know (e.g., friends, family, schoolmates). Associations between their own behaviour and others' suicide death were apparently weaker than associations with non-fatal behaviours (or sometimes absent entirely), suggesting that a death is perhaps perceived slightly differently to other behaviours within the spectrum. The literature tended to rely on self-reports of exposure to the behaviour of others, which may be susceptible to error, and reference groups and behaviours themselves were not always well-defined. Nevertheless, associations were widespread, and identified within a range of settings and a range of locations worldwide.

Study 1 (reported in Chapter 5) indicated that discrepancies exist between undergraduate students' reports of their own SSHBs and their perceptions of those behaviours in various reference groups. Proximal reference groups (e.g., parents, family members) were perceived as less likely than reported norms to engage in SSHBs, whilst more distal groups (e.g., people of the same age, people in general) were perceived as more likely to do so. Suicide attempts were perceived slightly differently, with all groups – apart from parents – perceived as more likely than reported norms, to attempt suicide. Discrepancies were also observed for attitudes towards self-harm and suicide attempts, with all groups perceived as less likely to approve of self-harm (though only proximal groups reached significance), and less likely to approve of suicide attempts. Regression analyses indicated a number of predictor variables for individuals' reported behaviour and attitudes. Broadly speaking, perceived proximal group norms tended to show positive associations with reported behaviour and attitudes, whilst distal group norms tended to show negative associations (although student norms

tended to show similar patterns to proximal group norms). Injunctive norms and descriptive norms were roughly equally as often predictive of reported norms. Most individuals reported having known or suspected that someone they knew had engaged in SSHB when they first did so themselves, but they did not tend to believe that that had had any influence on their own engagement in those behaviours.

Study 2 (reported in Chapter 6) indicated that discrepancies also exist between high-school pupils' reports of their own SSHBs and their perceptions of those behaviours in various reference groups. Again, proximal groups were perceived as less likely than reported norms to engage in SSHBs, whilst distal groups were perceived as more likely to do so. Contrary to what was found in Study 1, where close friends were perceived in similar ways to other proximal groups, high-school pupils perceived their close friends' behaviour similarly to the behaviour of more distal groups. Again, suicide attempts were perceived slightly differently, with all groups – apart from parents – perceived as more likely than reported norms, to attempt suicide (although only distal groups reached significance). Discrepancies were again also observed for attitudes towards self-harm and suicide attempts, with all groups perceived as less likely to approve of self-harm, and less likely to approve of suicide attempts (although only proximal groups reached significance). Regression analyses identified a number of predictor variables, and amongst other sporadic associations, close friends' perceived norms predicted all six outcome variables. Descriptive norms were twice as likely as injunctive norms, to predict reported norms. Unlike the undergraduate sample, most individuals did not report having known or suspected that someone they knew had engaged in SSHB when they first did so themselves, but of those that did, they tended not to believe that that had had any influence on their own engagement in those behaviours.

Study 3 (reported in Chapter 7) explored the beliefs, knowledge and experience behind undergraduates' normative perceptions of SSHBs and identified five overarching themes. *The Nature of SSHB* encompassed the perceived aetiology of SSHBs and identified features which participants believed are inherent to, or indicative of, those behaviours. *Experiencing SSHB* described participants' own reported experiences of SSHBs – either personally or through other people – and their beliefs about the impact and outcomes of those behaviours for both the people who engage therein, and seemingly more importantly, those around them. *Attributions* illustrated both the judgements that participants themselves expressed towards those who engage in SSHBs, and the judgements that they perceived to be evident in others. *Change* encompassed ideas around intervention and recovery; the evolution of knowledge and understanding of SSHBs (and mental health more generally); and the

increasing perceived normalisation of such behaviours. Finally, *Portrayal of Self* described participants' depiction of themselves as disproportionately knowledgeable, experienced and compassionate, in comparison to others. These findings highlighted the complexity of SSHB as a concept, further differentiating them from those previously studied within the field of social norms. It was also evident that pursuit of social approval and/or avoidance of causing offence may play a role in participants' responses regarding issues with emotive, ethical or moral considerations.

Taken together, these findings indicated that discrepancies exist between reported and perceived SSHBs and attitudes towards them, but that beliefs about SSHBs are complicated and multifaceted, and may be influenced by such factors as perceptions of their causes, motivations, impact, prevalence, and deviance, as well as individuals' own self-image. Such an array of multidimensional contributory factors may account for the divergence of self-other discrepancies in proximal versus distal reference groups, the relative importance of injunctive versus descriptive norms, and the complex relationships between perceptions and reported behaviour and attitudes. Perceptions of different group norms and their relationship with individuals' own behaviour and attitudes may vary as a function of age, although many overall trends were similar in both samples.

8.2 Theoretical Implications

The current thesis explores the application of the social norms approach to SSHB, and as such, findings should be considered with reference to theory from both fields, respectively (i.e. social norms and SSHB). Each of these is considered in turn, below, and a potential addition to existing suicide theory is proposed.

8.2.1 Social norms theory

Whilst some of the current findings followed similar patterns to what was expected based on previous social norms theory and research, there were some key features which differed from what was expected. As discussed in Chapter 3, social norms theory generally asserts that people believe that others behave in worse or more damaging ways than they do themselves, and hold more negative or damaging attitudes, and such perceptions are predictive of individuals' own reported behaviour and attitudes, with higher perceived norms predicting greater engagement in and approval of relevant behaviours. The current

hypotheses therefore included predictions that perceived suicidal and self-harming norms would be greater than reported, and that perceived norms would predict reported norms. Whilst perceived norms were indeed greater than reported norms for some behaviours and within some reference groups (e.g., descriptive norms for distal groups' engagement in self-harm were indeed perceived as greater than reported norms in both samples), proximal group descriptive norms were generally perceived to be lower than reported norms, as were both proximal and distal groups' injunctive norms; directly contradicting previous social norms findings. Furthermore, whilst a number of significant predictors of reported norms were identified, these differed across behaviours and between samples, and were by no means uniform. This was again unexpected in terms of previous findings.

There are two potential explanations for these differences in comparison to previous findings. Firstly, it may be that the social norms approach is simply not applicable to SSHBs, and the divergent patterns observed within the current findings are indicative that social norms theory is not relevant in this domain. However, considering that it has been shown to have utility within such a diverse array of behaviours, and given that many of the current findings do in fact resemble aspects of previous social norms findings, this seems unlikely. A far more probable explanation is that due to the complexity and multifaceted nature of SSHBs (in terms of their moral or ethical connotations, their potential fatality, and their connection with mental illness, for example), gaining a comprehensive understanding of how normative perceptions of such behaviours might relate to reported norms is necessarily a more complicated task. Study 3 provided direct evidence for this notion, highlighting the uncertainties and contradictions of understanding and belief even *within* individuals. Far from a lack of utility of social norms theory within this domain, it is arguably the case that such relatively complex behaviours necessitate a more creative and bespoke application of the approach than has previously been employed, and as such, the current findings may help to expand – but also challenge – current understanding of social norms theory.

Whilst previous social norms research prompted the prediction that both perceived descriptive and injunctive norms would be higher than reported norms and that both would directly predict reported norms, this was based on the assumption that descriptive and injunctive norms have similar effects on reported norms, and that engaging in and approving of SSHBs would be perceived negatively. However, the current findings suggest that whilst engaging therein may well be deemed a negative or damaging behaviour (as demonstrated by individuals' tendency to perceive descriptive norms as higher than reported), holding

positive attitudes towards those behaviours may be seen in more positive terms, and even considered desirable (as demonstrated by individuals' tendency to perceive injunctive norms as lower than reported), therefore disputing the relative similarity typically observed between descriptive and injunctive norms. Moreover, the predictive effect of different reference groups varied such that whilst some groups' norms were associated with an increase in reported norms, others were associated with a decrease, suggesting that conformity to certain group norms, and divergence from others, was important. Conversely, previous social norms research has typically observed a general trend for all groups' norms to predict reported norms, differing only in strength (i.e. not in direction). These deviations from the patterns previously observed within social norms research argue that the way in which normative perceptions are formed, and the way in which they impact upon our own behaviour, may be more complex than was previously understood. For example, contrary to the understanding that individuals consider themselves uniquely better than all others, research has indicated that this may extend to include close social groups, with participants rating friends and family similarly to their self-ratings on socially desirable items (Pedregon, Farley, Davis, Wood & Clark, 2012). More in-depth analysis of the implications of the current findings on social norms theory in general is unfortunately beyond the scope of the current thesis, as it represents such an early, exploratory stage of research within the present field. However, current findings nevertheless point towards a more complicated interplay than has previously been identified between perceived norms and individuals' own behaviour and attitudes, and this is worthy of further investigation.

8.2.2 SSHB theory: The IMV model

It could be argued that the current findings support the idea that perceived social norms represent one of the factors which contribute to the aetiology of suicidal behaviour, as described by the Integrated Motivational-Volitional model of suicidal behaviour (O'Connor, 2011 – see Chapter 1). The IMV model is again presented in Figure 8.1 (for reference). The potential contribution that perceived social norms may make to each phase of the IMV model is described below. It was clearly beyond the scope of the current thesis to test these suggestions empirically, or indeed to explore fully how social norms may fit into the IMV model more generally; but future research should aim to address these questions systematically (see section 8.4, below).

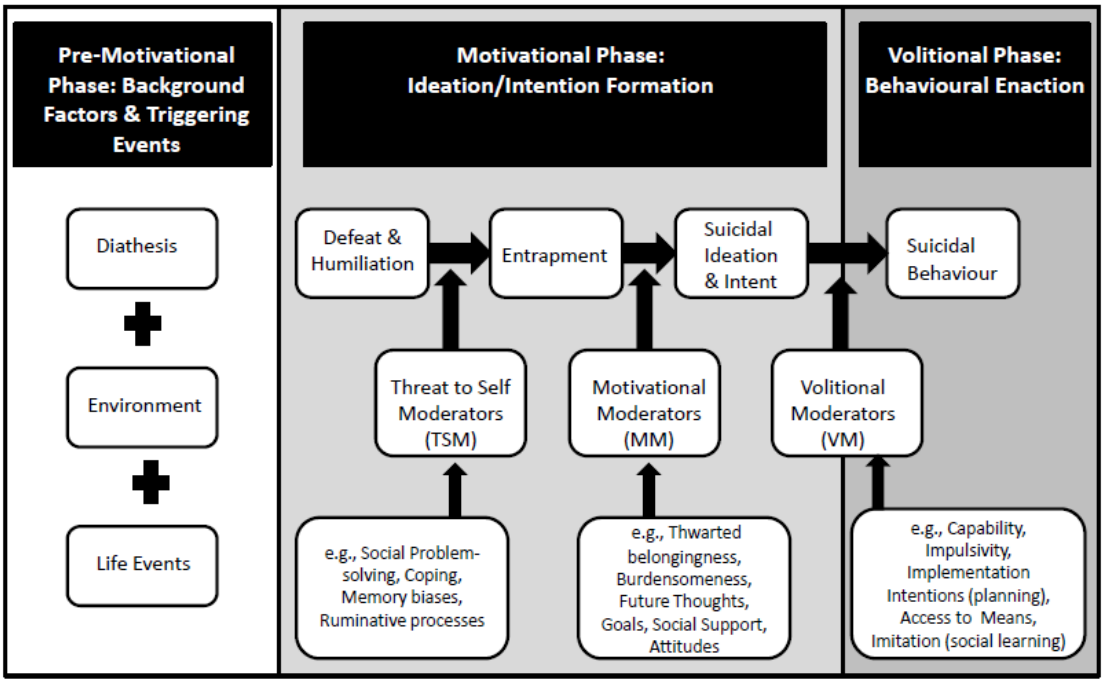

Figure 8.1: The Integrated Motivational-Volitional model of suicidal behaviour (*source: O'Connor, 2011*).

8.2.2.1 Perceived social norms as a pre-motivational variable

As proposed in Chapter 1, the underlying belief that other people engage in or approve of SSHBs may represent a pre-motivational factor which predisposes an individual to suicidal behaviour (but which will only convert into behavioural action in the event of future motivators and volitional moderators). The widely-held belief of participants of the current research that SSHBs are generally common and prevalent (though not necessarily in people they know), and the specific sub-theme identified in Study 3 (Chapter 7) – *Normalisation* – support the idea that norms are generally perceived as high, even in those who do not report engaging in SSHB personally (some of whom may or may not go on to do so, given sufficient triggers). Alternatively, experiencing the SSHB of (specific) significant others may represent a traumatic life event which similarly predisposes an individual, and risk is further exacerbated by the subsequent development of a belief that such behaviour is normative. It was noted in Study 3 that those who reported having specific experience of someone close to them engaging in SSHB, tended to subsequently report further, sometimes less tangible instances of perceived SSHB in others, lending support to the notion that previous experience of exposure may result in the subsequent perception that SSHBs are more normative than they perhaps are.

8.2.2.2 Perceived social norms as a motivational variable

Results of the current programme of research do not provide any evidence that perceived social norms contribute to the progression from experiences of *defeat and humiliation* to *entrapment* (TSM). However, it is possible that the abovementioned increase in perceived normalness of SSHB following relevant experience may represent an example of a memory bias additional to those currently theorised to contribute to the development of feelings of entrapment. These ideas are purely speculative and would require empirical investigation.

Alternatively, perceived social norms may contribute to the progression from *entrapment* to *suicidal ideation and intent* (MM), in that injunctive norms around SSHBs may contribute to the development of risk-increasing *attitudes*, additional to those currently theorised to do so. Evidence from Study 3 suggested that others' attitudes towards SSHB were perceived as largely negative, and may represent a barrier to help-seeking. This perception may increase feelings of isolation and burdensomeness in those at risk, resulting in the development of suicidal ideation. Additionally, the associations identified in Studies 1 and 2 between reported and perceived attitudes, may further increase risk where perceived normative approval of SSHB is related to an increase in an individual's own.

8.2.2.3 Perceived social norms as a volitional variable

In terms of O'Connor's (2011) proposal that social learning or imitation may represent a volitional moderator (which given the presence of preceding pre-motivating and motivating factors, would result in the conversion of suicidal thought into action), the current findings suggest that social norms may be more relevant than social learning per se. As perceived norms (as opposed to concrete knowledge of others' behaviour) were found to predict reported norms, it may be that when those participants who reported engaging in SSHB first did so, conditions were such that others' perceived engagement in SSHBs motivated them to act on existing suicidal thoughts, through the belief that to do so would be to conform to an accepted norm. Whilst social learning may contribute to the development of social norms, the two are arguably distinct (e.g., Sen & Airiau, 2007)[24], and may represent discrete volitional moderators.

8.3 Strengths and Limitations

[24] Sen & Airiau (2007) propose that social learning develops through repeated interaction with others, and social norms emerge from this learning through conformity to perceived "rules".

The strengths and limitations of the individual studies which make up the current thesis have been discussed within the relevant chapters, but the current research as a whole has a number of general strengths and limitations. An obvious strength is that (to the author's knowledge) the social norms of SSHBs, and the impact of normative perceptions on behaviour and attitudes in this domain, have not previously been explored, rendering the current research entirely original. As such, a unique contribution has been made to the literature, furthering our understanding of social influences on SSHB and of social norms, and identifying potential avenues for intervention. In addition, the current research investigated these concepts in two high-risk populations; further increasing knowledge within the field. Due to the novelty of this approach within this domain, and the associated lack of previous research upon which to draw during study design, some methodological challenges were faced, which may have impacted upon the reliability of the findings. These are discussed further within the relevant chapters, but broadly constitute issues around the appropriate wording of survey items, and successfully accessing the concepts of interest. It is believed however, that methodological challenges are a limitation potentially inherent to any entirely original piece of research, and that the benefits in terms of increasing knowledge, informing future study design and identifying further areas of research, outweigh the disadvantages proffered by imperfect methodology.

A further strength of the current research is the large sample size. The current programme of research recruited a total of 813 participants across three studies. Although sample size in itself is not necessarily an indication of the generalisability of research findings, it can be argued that a relatively large sample more closely approximates the population from which it was drawn, thereby minimising the likelihood that recruited participants are in some way unusual, and increasing the likelihood that findings can be relied upon as representative of the population. A minor critique of the research might be that as only high-school pupils and undergraduate students were sampled, the overall findings are not generalisable to the wider population (thus excluding older adults or non-student samples, for example). In addition, participants of the current research were recruited from non-clinical populations only, and may display very different patterns to those currently receiving treatment. However, the chosen samples were specifically selected for examination as they represent high-risk groups for SSHB, and investigation of novel ways of understanding (and potentially reducing) SSHB in such groups was considered highly worthwhile. Additionally, as is typically the case with social norms research in general, the current research only aimed to describe the patterns within the sampled populations and was not intended to enable broader assumptions. As discussed in Chapter 4, social norms interventions target specific

populations by providing normative feedback uniquely relevant to that population, such that each distinct population would require investigation of its own norms to inform the creation of a relevant intervention.

The current programme of research is advantageous in its employment of mixed-methods, as the enrichment of quantitative data through subsequent qualitative inquiry is relatively rare within the field of social norms research, and provides multidimensional insights which would not be captured through the use of a single methodology. The findings of the qualitative study (Study 3 – Chapter 7) both supported the findings of the quantitative studies (Studies 1 and 2 – Chapters 5 and 6, respectively), and helped to clarify some of their unexpected findings, thereby increasing the quality of the research overall. It is unfortunate that it was not possible to conduct a similar qualitative study within an adolescent population in order to provide a complete set of analogous mixed-methods data for both populations, as this may have helped to explain some of the remaining uncertainties. The absence of such data leads to assumptions being made about adolescents based on the undergraduate findings, and these may not be accurate, but it would clearly be beyond the scope of one PhD thesis to address every relevant issue.

Finally, the cross-sectional design of the current programme of research means that conclusions regarding direction of influence between perceived and reported norms, and developmental trajectories, are speculative. Comparison between samples and the data collected regarding participants' beliefs about people they know having engaged in SSHB when they first did so may in part alleviate such concerns, but without confirmation from longitudinal or prospective research, definitive conclusions cannot be made. However, these and other points of interest demonstrate that the current study has proven beneficial in its identification of a large number of areas requiring further research, which would ultimately improve our understanding of both social norms and of SSHBs, and potentially aid in the reduction of the latter.

8.4 Future Research Directions

A number of areas for potential future research specific to each of the reported studies have been discussed in previous chapters, and will not be reiterated in full here. However, a number of broader potential areas identified for further inquiry are outlined:

- Elucidation is needed regarding the apparent developmental changes in normative perceptions and their impact on behaviour and attitudes, including the collection of information regarding which specific features are age-dependant, and exploration of the age at which changes occur, perhaps through longitudinal, prospective methodology.
- A deeper understanding is required of the nature of the different reference groups, including individuals' differentiation between, and identification with, each distinct group, and the reasons behind the differential impact that groups have on reported norms.
- Clarification is necessary regarding the apparent differences between the way in which behaviour and attitudes are perceived. Some assumptions have been made regarding difference in the perceived rightness/wrongness or acceptability of engaging in SSHBs compared to approving of those behaviours, but systematic investigation is required to evaluate the accuracy of these assumptions.
- The theoretical issues highlighted above would benefit from exploration. Specifically, a better understanding of the nature of, and relationship between, descriptive and injunctive norms, and their relative impact on behaviour and attitudes may uncover information about their relative utility within interventions.
- Suicide theory would benefit from systematic investigation of how perceived social norms contribute to the IMV model, particularly with regard to the specific role that social norms play in the development of suicidality, and the stage at which intervention might be most appropriate. This would be best achieved using similar methods to those previously used to test existing aspects of the model – namely, by exploring whether perceived social norms differentiate between groups of indviduals at each of the different theoretical phases (e.g., those with and without ideation).
- Finally, further research is necessary to inform the development of interventions based upon the social norms approach, as the current research represents only the first (known) attempt at application of this approach to SSHB. Many issues remain unclear, and clarification is required to confirm that as the current thesis suggests (see section 8.5, below), interventions based on the social norms approach might be effective in the reduction of these behaviours.

8.5 Applied Relevance/Interventions

During the conception of the current programme of research, it was predicted that perceived norms would directly predict reported norms in both samples, and it was envisaged that this would form the basis for a relatively straightforward social norms intervention – analogous to those implemented in other areas – whereby SSHB may be reduced through the provision of accurate normative information. However, findings suggested that whilst undergraduate students' and adolescents' engagement in and approval of SSHBs were indeed related to their perceptions of other people's engagement in and approval of those behaviours, the direction of relationships varied between reference groups, and differed across age-groups. As such, a "typical" social norms intervention may well be feasible, but further research would be required beforehand to clarify some issues. Given the complicated relationships observed between reported norms and perceived norms of different reference groups, careful design would be necessary, with close attention paid to features of the norms messages disseminated and the age of the target group. For example, adolescents' behaviour appears to be particularly prone to influence from close friends' descriptive norms, which are perceived to much higher than reported norms, such that a standard social norms approach based on the feedback of more conservative normative messages pertaining to close friends' norms might be effective in reducing adolescents' behaviour. On the other hand, undergraduates appear to be less influenced by close friends specifically, and equally prone to influence from both descriptive and injunctive norms, so more general social norms messages may be more appropriate in this population. However, whilst perceived proximal group norms appear to directly predict behaviour and attitudes, those norms are perceived to be much lower than reported norms, such that feeding back normative information may have little effect. Conversely, distal group norms appear to inversely predict reported norms, but are perceived as much higher than reported norms, such that reducing perceptions of those groups' norms may have deleterious effects on undergraduates' own behaviour. A social norms intervention for undergraduates would therefore require more extensive consideration, in order to avoid inadvertently exacerbating the situation, and further research exploring the relationships between perceived and reported norms, as well as the conceptualisation of various reference groups, may assist in this.

Despite the complications that may arise in attempting to design what might be considered a "standard" social norms intervention, the current findings have unexpectedly highlighted the potential for the development of an alternative type of intervention. Neither descriptive nor injunctive norms predicted reported norms in all cases, and in some cases, higher perceived norms predicted lower reported norms. However, it was observed that whilst the majority of participants reported that they were relatively sympathetic towards or accepting of SSHBs,

they almost universally believed that others were not. Given that both the current findings (i.e. Study 3) and previous research (e.g., Gulliver, Griffiths & Christensen, 2010) have identified perceptions of others' negative attitudes or stigmatisation as a barrier to seeking help for mental distress, these findings reveal the possibility that social norms interventions which increase normative perceptions of more sympathetic or accepting attitudes, might be useful in increasing help-seeking behaviour, thereby potentially reducing SSHBs indirectly. Social norms research has already identified that decreasing perceptions of permissiveness of sexually violent behaviour may be effective in reducing sexual violence (e.g., Fabiano, Perkins, Berkowitz, Linkenbach & Stark, 2003), so there is no reason to believe that interventions aiming to *increase* permissiveness of help-seeking should not be equally effective in increasing help-seeking. This was an "accidental" finding, and would of course require further empirical work before the development of such an intervention would be appropriate, but it nevertheless further highlights the potential utility of the social norms approach in reducing SSHBs.

8.6 Final Remarks

Overall, the current thesis provided strong evidence that perceptions of the social norms surrounding SSHBs may be prone to error in both undergraduate students and adolescents, and that normative perceptions may influence individuals' own behaviour and attitudes. The direction of discrepancies between reported and perceived norms, and the predictive power of perceived norms over reported norms, appear to vary as a function of individuals' proximity to – or perhaps identification with – the reference group in question. Both of these in turn, appear to vary somewhat as a function of age – as does the relative importance of descriptive norms in comparison to injunctive norms. Convoluted and often contradictory beliefs about SSHBs may account for the unusual patterns observed within the data (in comparison to previous social norms research), and this may be complicated further by individuals' desire to appear favourable. As the current thesis represents a first effort to explore the social norms of SSHBs, a number of questions remain unanswered and a number of assumptions and interpretations of the data remain purely speculative, until such times as they can be confirmed or refuted through further research. It is nevertheless believed that the current thesis has provided a firm basis on which to build further evidence around the social norms of SSHBs, and ultimately assists in informing the eventual development of a novel intervention to reduce such behaviours.

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Appendix A:

Study 1 Participant Information Sheet (downloaded)

School of Psychological Sciences and Health

Social norms of risky health behaviours

This study is being conducted by Jody Quigley; a PhD student at the University of Strathclyde, as part of her doctoral thesis.

What is the purpose of this investigation?

The social norms of a given behaviour are the typical or "normal" rates at which people engage in, or are perceived to engage in, that behaviour. The purpose of this study is to investigate the social norms around risky health behaviours. Typical rates of most behaviours are reasonably easy to measure, either through observation, asking people directly, or through studying official records. Some behaviours however, are slightly more difficult to observe due to the sensitivity around asking about them and the secretiveness with which people often engage in them. For example, people may feel reluctant to attend A&E following an alcohol-related injury because they are embarrassed or feel like they'd be wasting resources, so alcohol-related injuries may go under-reported. We are interested in the levels of risky health behaviours that occur within a non-clinical undergraduate population, and the levels of risky health behaviours observed/perceived in the social environment within which undergraduates function. That is, we are interested in exploring the social norms of risky health behaviours which may otherwise go undetected.

Do you have to take part?

No, you do not have to take part. Participating in this study is completely voluntary, and it is up to you to decide if you wish to participate. If you do not wish to take part, or if you decide you would like to withdraw from the study, you are free to do so without giving a reason and without any detriment to you.

What will you do in the project?

If you decide to take part, you will be asked to complete a series of short on-screen questions about your own behaviour and the behaviour of those around you. The behaviours you will

be asked about are: alcohol use, substance use, self-harm, suicide, risky sex, gambling and unhealthy eating. For most of the questions, you will simply be invited to select the appropriate answer, and click "next", until you reach the end of the survey. There are a small number of questions where you will be asked to type an answer but these will require very short answers. The whole study should take approximately 30 minutes in total.

All participants have the option to be included in a prize draw for a £50 gift voucher, as a thank you for your time and effort in taking part. Should you wish to be included in the draw, you are invited to email the researchers with a password which you will receive on completion of the survey. This password will constitute proof of participation only, and will not link you to your survey responses (which will remain completely anonymous). Your odds of winning the draw will of course depend on the number of entrants. The winner will be selected at random upon completion of data collection.

PLEASE NOTE: Only those students who provide the correct password will be entered into the prize draw.

Why have you been invited to take part?

You have been invited to take part because you are an undergraduate student at a university in Glasgow and you are over the age of 18.

What are the potential risks to you in taking part?

It is possible that you may experience some psychological discomfort in answering some of the questions. If you think that you may find it distressing to think about potentially upsetting events that you or someone you know has experienced, then we advise that you do not participate in this study. If you decide to participate and become upset, you are free to withdraw at any point, without explanation (there is an opt-out button on each page which will take you to the end of the survey). Contact details for sources of advice and support, should you feel you need it, will be provided.

What happens to the information in the project?

All information gathered during this study will be kept confidential. You will at no point be asked to provide your name, and will instead be assigned a participant number so all of your data will be anonymous. No identifying information will be included in any publications or presentations of results. Data will be stored on a secure, password-protected computer, and

only the researchers named on this sheet will have access to your data. Data will be kept for 5 years after publication and then destroyed, securely.

The University of Strathclyde is registered with the Information Commissioner's Office who implements the Data Protection Act 1998. All personal data on participants will be processed in accordance with the provisions of the Data Protection Act 1998.

What happens next?

Should you have any questions or concerns before you decide whether to participate, the researchers (contact details below) would be more than happy to address them with you.

If you are happy to be involved in the study, you will be asked to tick a box indicating that you give your consent to participate, and to complete some simple demographic details (e.g. age, year of study) for group comparison purposes, before completing the survey.

Once the study is complete, results will be written up both for use as part of a doctoral thesis, and for publication in a peer-reviewed journal. As such, the full report on the study will be available publically.

If you have decided you do not want to participate, thank you for the time you have taken in considering it.

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This investigation was granted ethical approval by the University of Strathclyde ethics committee.

If you have any questions/concerns, during or after the investigation, or wish to contact an independent person to whom any questions may be directed or from whom further information may be sought, please contact:

Secretary to the University Ethics Committee
Research & Knowledge Exchange Services
University of Strathclyde
Graham Hills Building
50 George Street
GlasgowG1 1QE
Email: ethics@strath.ac.uk
Phone: 0141 548 3707

Appendix B:

Study 1 Participant Consent Form (downloaded)

- I confirm that I have read and understood the information provided and the researcher has answered any queries to my satisfaction.
- I understand that my participation is voluntary and that I am free to withdraw from the project at any time, without having to give a reason and without any consequences.
- I understand that I can withdraw my data from the study at any time.
- I understand that any information recorded in the investigation will remain confidential and anonymous and no information that identifies me will be made publicly available.
- I consent to being a participant in this project.

❍ Please select this box to confirm that you agree with the above statements.

Appendix C:
Study 1 Participant (downloaded)

Thank you for taking part in this study.

The purpose of this research is to investigate individuals' engagement in risky health behaviours and their perceptions and/or knowledge of "normal" rates of risky behaviour in others, i.e. the social norms of those behaviours. A further purpose is to ascertain whether an individual's behaviour is associated with real or perceived normative behaviours in others. Research in the drugs and alcohol field has found a link between individuals' perceptions of behaviour in others and their own subsequent engagement in that behaviour; that is, people tend to overestimate others' alcohol consumption and drug use, and this is related to an increase in their own. We hope to broaden this area of research.

We are particularly interested in the social norms of, and normative misperceptions around, suicidal and self-harming behaviours (self harm, suicidal ideation, suicide attempt, death by suicide), and whether these have any association with an individual's own suicidal/self-harming behaviour. Evidence has shown that knowing someone who has engaged in one of these behaviours may increase an individual's own risk of doing so, so we hope to determine whether normative (mis)perceptions have a similar link as those previously found in other risky health behaviours.

What happens to my results?

Your results will be kept anonymous, and no identifying data will be included in any publications or presentations of results. All data will be kept for a period of 5 years after publication of the results, and will be stored on a password-protected computer. Once the study is complete, results will be written up both for use as part of a doctoral thesis, and for publication in a peer-reviewed journal. As such, the full report on the study will be available publically (with participants' anonymity maintained).

Appendix D:

Study 1 Pilot Survey (downloaded)

Some details about you, before you begin the survey...

(In the interests of anonymity, PLEASE DON'T COMPLETE THIS SECTION for the pilot phase – please just check that it makes sense to you and that you would be able to answer, were you asked to)

PQ1 What sex are you?

- ❍ Male
- ❍ Female
- ❍ Other

PQ2 How old are you? _____

PQ3 What are you studying?

Subject (e.g. Maths, Psychology) _____

Level (e.g. BSc, BA) _____

PQ4 What year of your course are you in? _____

PQ5 Where do you live?

- ❍ Family home
- ❍ University halls
- ❍ Private accommodation with friends
- ❍ Private accommodation with strangers
- ❍ Other (please specify) _____

The Survey

For the following questions, please tick the answer that most closely represents what you think/ feel or write your answer where indicated. If there does not seem to be an answer that fits your point of view exactly, please just choose the closest.

"Comments" boxes are provided in each section. Please use these to make any comments or suggestions you have about the wording of the questions or how easy you find them to answer. There is also space for you to do this at the end of the survey.

Please note:
Some of the questions ask about whether you or people you know engage in certain behaviours. Please answer these with regard to both current behaviour and behaviour in the past (e.g. if you used to do something but don't anymore, we are still interested).

The "not applicable" option should only be chosen if a question doesn't apply to you (for example, if it asks about your children and you don't have children).

When this survey refers to "substance use", it means substances such as marijuana, cocaine, LSD, amphetamines, ecstasy, heroin etc.

When it refers to "harming oneself", it means for example deliberately taking an overdose (e.g., pills or other medication) or trying to harm oneself in some other way (such as cutting oneself).

When it refers to "ending one's life", it specifically means deliberately dying by suicide.
When it refers to "unhealthy or damaging eating behaviours", it means for example deliberately binge eating or starving oneself.

PQ6 Have you ever drank enough alcohol to make yourself ill or to cause yourself any other negative consequences (e.g. injury, missing work/ university)?

- ❍ I do so regularly/ often
- ❍ I do so occasionally
- ❍ Never
- ❍ I have done occasionally in the past, but not anymore
- ❍ I have done regularly in the past, but not anymore

PQ7 Have you ever used substances?

- ❍ I do so regularly/ often
- ❍ I do so occasionally
- ❍ Never
- ❍ I have done occasionally in the past, but not anymore
- ❍ I have done regularly in the past, but not anymore

PQ8 Have you ever thought about harming yourself?

- ❍ I do so regularly/ often
- ❍ I do so occasionally
- ❍ Never
- ❍ I have done occasionally in the past, but not anymore
- ❍ I have done regularly in the past, but not anymore

PQ9 Have you ever actually harmed yourself?

- ❍ I do so regularly/ often
- ❍ I do so occasionally
- ❍ Never
- ❍ I have done occasionally in the past, but not anymore
- ❍ I have done regularly in the past, but not anymore

PQ10 Have you ever thought about ending your life?

- ❍ I do so regularly/ often
- ❍ I do so occasionally
- ❍ Never
- ❍ I have done occasionally in the past, but not anymore
- ❍ I have done regularly in the past, but not anymore

PQ11 Have you ever attempted to end your life?

- ❍ I do so regularly/ often
- ❍ I do so occasionally
- ❍ Never
- ❍ I have done occasionally in the past, but not anymore
- ❍ I have done regularly in the past, but not anymore

PQ12 Have you ever had unprotected or otherwise risky sex?

- ❍ I do so regularly/ often
- ❍ I do so occasionally
- ❍ Never
- ❍ I have done occasionally in the past, but not anymore
- ❍ I have done regularly in the past, but not anymore

PQ13 Have you ever gambled more than you could afford to?

- ❍ I do so regularly/ often
- ❍ I do so occasionally
- ❍ Never
- ❍ I have done occasionally in the past, but not anymore
- ❍ I have done regularly in the past, but not anymore

PQ14 Have you ever eaten in a way that might be considered unhealthy or damaging?

- ❍ I do so regularly/ often
- ❍ I do so occasionally
- ❍ Never
- ❍ I have done occasionally in the past, but not anymore
- ❍ I have done regularly in the past, but not anymore

Comments?

PQ15 Do you think the following people ever drink enough alcohol to make themselves ill or to cause themselves any other negative consequences (e.g. injury, missing work/ university)?

	Do so regularly/ often	Do so occasionally	Never	Have done occasionally in the past, but not anymore	Have done regularly in the past, but not anymore	Not applicable
Your close friends	❍	❍	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍	❍	❍
Students in general	❍	❍	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍	❍	❍
People in general	❍	❍	❍	❍	❍	❍

PQ16 Do you think the following people ever use substances?

	Do so regularly/ often	Do so occasionally	Never	Have done occasionally in the past, but not anymore	Have done regularly in the past, but not anymore	Not applicable
Your close friends	❍	❍	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍	❍	❍
Students in general	❍	❍	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍	❍	❍
People in general	❍	❍	❍	❍	❍	❍

PQ17 Do you think the following people ever think about harming themselves?

	Do so regularly/ often	Do so occasionally	Never	Have done occasionally in the past, but not anymore	Have done regularly in the past, but not anymore	Not applicable
Your close friends	❍	❍	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍	❍	❍
Students in general	❍	❍	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍	❍	❍
People in general	❍	❍	❍	❍	❍	❍

PQ18 Do you think the following people ever actually harm themselves?

	Do so regularly/ often	Do so occasionally	Never	Have done occasionally in the past, but not anymore	Have done regularly in the past, but not anymore	Not applicable
Your close friends	❍	❍	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍	❍	❍
Students in general	❍	❍	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍	❍	❍
People in general	❍	❍	❍	❍	❍	❍

PQ19 Do you think the following people ever think about ending their lives?

	Do so regularly/ often	Do so occasionally	Never	Have done occasionally in the past, but not anymore	Have done regularly in the past, but not anymore	Not applicable
Your close friends	❍	❍	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍	❍	❍
Students in general	❍	❍	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍	❍	❍
People in general	❍	❍	❍	❍	❍	❍

PQ20 Do you think the following people ever attempt to end their lives?

	Do so regularly/ often	Do so occasionally	Never	Have done occasionally in the past, but not anymore	Have done regularly in the past, but not anymore	Not applicable
Your close friends	❍	❍	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍	❍	❍
Students in general	❍	❍	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍	❍	❍
People in general	❍	❍	❍	❍	❍	❍

PQ21 Do you think a member of the following groups of people ever actually ends their life?

	Regularly/ often	Occasionally	Never	Not applicable
Your close friends	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍
Students in general	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍
People in general	❍	❍	❍	❍

PQ22 Do you think the following people ever have unprotected or otherwise risky sex?

	Do so regularly/ often	Do so occasionally	Never	Have done occasionally in the past, but not anymore	Have done regularly in the past, but not anymore	Not applicable
Your close friends	❍	❍	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍	❍	❍
Students in general	❍	❍	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍	❍	❍
People in general	❍	❍	❍	❍	❍	❍

PQ23 Do you think the following people ever gamble more than they can afford to?

	Do so regularly/ often	Do so occasionally	Never	Have done occasionally in the past, but not anymore	Have done regularly in the past, but not anymore	Not applicable
Your close friends	❍	❍	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍	❍	❍
Students in general	❍	❍	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍	❍	❍
People in general	❍	❍	❍	❍	❍	❍

PQ24 Do you think the following people ever eat in a way that might be considered unhealthy or damaging?

	Do so regularly/ often	Do so occasionally	Never	Have done occasionally in the past, but not anymore	Have done regularly in the past, but not anymore	Not applicable
Your close friends	❍	❍	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍	❍	❍
Students in general	❍	❍	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍	❍	❍
People in general	❍	❍	❍	❍	❍	❍

Comments?

PQ25 What percentage of the following people do you think **never** drink enough to experience negative consequences?

_____ Your close friends

_____ Your siblings (if applicable)

_____ Your parents/ guardians etc.

_____ Your children (if applicable)

_____ Your wider/ extended family

_____ Students the same sex as you

_____ Students at your uni

_____ Students in general

_____ People your age in general

_____ People in general

PQ26 What percentage of the following people do you think **never** use substances?

_____ Your close friends

_____ Your siblings (if applicable)

_____ Your parents/ guardians etc.

_____ Your children (if applicable)

_____ Your wider/ extended family

_____ Students the same sex as you

_____ Students at your uni

_____ Students in general

_____ People your age in general

_____ People in general

PQ27 What percentage of the following people do you think **never** think about harming themselves or of ending their lives?

_____ Your close friends

_____ Your siblings (if applicable)

_____ Your parents/ guardians etc.

_____ Your children (if applicable)

_____ Your wider/ extended family

_____ Students the same sex as you

_____ Students at your uni

_____ Students in general

_____ People your age in general

_____ People in general

PQ28 What percentage of the following people do you think **never** harm themselves or attempt to end their lives (although they may have thought about it)?

_____ Your close friends

_____ Your siblings (if applicable)

_____ Your parents/ guardians etc.

_____ Your children (if applicable)

_____ Your wider/ extended family

_____ Students the same sex as you

_____ Students at your uni

_____ Students in general

_____ People your age in general

_____ People in general

PQ29 What percentage of the following people do you think **never** have unprotected or otherwise risky sex?

_____ Your close friends

_____ Your siblings (if applicable)

_____ Your parents/ guardians etc.

_____ Your children (if applicable)

_____ Your wider/ extended family

_____ Students the same sex as you

_____ Students at your uni

_____ Students in general

_____ People your age in general

_____ People in general

PQ30 What percentage of the following people do you think **never** gamble more than they can afford to?

_____ Your close friends

_____ Your siblings (if applicable)

_____ Your parents/ guardians etc.

_____ Your children (if applicable)

_____ Your wider/ extended family

_____ Students the same sex as you

_____ Students at your uni

_____ Students in general

_____ People your age in general

_____ People in general

PQ31 What percentage of the following people do you think **never** eat in what might be considered an unhealthy or damaging way?

_____ Your close friends

_____ Your siblings (if applicable)

_____ Your parents/ guardians etc.

_____ Your children (if applicable)

_____ Your wider/ extended family

_____ Students the same sex as you

_____ Students at your uni

_____ Students in general

_____ People your age in general

_____ People in general

Comments?

PQ32 Which statement about drinking enough to cause oneself negative consequences do you feel best represents your own attitude?

- ❍ It is completely wrong for an individual to drink that much
- ❍ There are certain circumstances under which it is OK for an individual to drink that much
- ❍ It is completely OK for an individual to drink that much if that is what they choose to do

PQ33 Which statement about using substances do you feel best represents your own attitude?

- ❍ It is completely wrong for an individual to use substances
- ❍ There are certain circumstances under which it is OK for an individual to use substances
- ❍ It is completely OK for an individual to use substances if that is what they choose to do

PQ34 Which statement about harming oneself do you feel best represents your own attitude?

- ❍ It is completely wrong for an individual to deliberately harm themselves
- ❍ There are certain circumstances under which it is OK for an individual to deliberately harm themselves
- ❍ It is completely OK for an individual to deliberately harm themselves if that is what they choose to do

PQ35 Which statement about attempting to end one's life do you feel best represents your own attitude?

- ❍ It is completely wrong for an individual to attempt to end their life
- ❍ There are certain circumstances under which it is OK for an individual to attempt to end their life
- ❍ It is completely OK for an individual to attempt to end their life if that is what they choose to do

PQ36 Which statement about risky sexual behaviour do you feel best represents your own attitude?

- ❍ It is completely wrong for an individual to engage in risky sexual behaviour
- ❍ There are certain circumstances under which it is OK for an individual to engage in risky sexual behaviour
- ❍ It is completely OK for an individual to engage in risky sexual behaviour if that is what they choose to do

PQ37 Which statement about gambling more than one can afford to do you feel best represents your own attitude?

- ❍ It is completely wrong for an individual to gamble more than they can afford
- ❍ There are certain circumstances under which it is OK for an individual to gamble more than they can afford
- ❍ It is completely OK for an individual to gamble more than they can afford if that is what they choose to do

PQ38 Which statement about unhealthy or damaging eating behaviour do you feel best represents your own attitude?

- ❍ It is completely wrong for an individual to eat in an unhealthy or damaging way
- ❍ There are certain circumstances under which it is OK for an individual to eat in an unhealthy or damaging way
- ❍ It is completely OK for an individual to eat in an unhealthy or damaging way if that is what they choose to do

Comments?

PQ39 Which statement about drinking enough to cause oneself negative consequences do you feel best represents the attitudes of the following people?

	It is completely wrong for an individual to drink that much	There are certain circumstances under which it is OK for an individual to drink that much	It is completely OK for an individual to drink that much if that is what they choose to do	Not applicable
Your close friends	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍
Students in general	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍
People in general	❍	❍	❍	❍

PQ40 Which statement about using substances do you feel best represents the attitudes of the following people?

	It is completely wrong for an individual to use substances	There are certain circumstances under which it is OK for an individual to use substances	It is completely OK for an individual to use substances if that is what they choose to do	Not applicable
Your close friends	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍
Students in general	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍
People in general	❍	❍	❍	❍

PQ41 Which statement about harming oneself do you feel best represents the attitudes of the following people?

	It is completely wrong for an individual to harm themselves	There are certain circumstances under which it is OK for an individual to harm themselves	It is completely OK for an individual to harm themselves if that is what they choose to do	Not applicable
Your close friends	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍
Students in general	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍
People in general	❍	❍	❍	❍

PQ42 Which statement about attempting to end one's life do you feel best represents the attitudes of the following people?

	It is completely wrong for an individual to attempt to end their life	There are certain circumstances under which it is OK for an individual to attempt to end their life	It is completely OK for an individual to attempt to end their life if that is what they choose to do	Not applicable
Your close friends	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍
Students in general	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍
People in general	❍	❍	❍	❍

PQ43 Which statement about risky sexual behaviour do you feel best represents the attitudes of the following people?

	It is completely wrong for an individual to engage in risky sexual behaviour	There are certain circumstances under which it is OK for an individual to engage in risky sexual behaviour	It is completely OK for an individual to engage in risky sexual behaviour if that is what they choose to do	Not applicable
Your close friends	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍
Students in general	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍
People in general	❍	❍	❍	❍

PQ44 Which statement about gambling more than one can afford to do you feel best represents the attitudes of the following people?

	It is completely wrong for an individual to gamble more than they can afford	There are certain circumstances under which it is OK for an individual to gamble more than they can afford	It is completely OK for an individual to gamble more than they can afford if that is what they choose to do	Not applicable
Your close friends	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍
Students in general	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍
People in general	❍	❍	❍	❍

PQ45 Which statement about unhealthy or damaging eating behaviour do you feel best represents the attitudes of the following people?

	It is completely wrong for an individual to eat in an unhealthy or damaging way	There are certain circumstances under which it is OK for an individual to eat in an unhealthy or damaging way	It is completely OK for an individual to eat in an unhealthy or damaging way if that is what they choose to do	Not applicable
Your close friends	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍
Students in general	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍
People in general	❍	❍	❍	❍

Comments?

Answer PQ46-49 only if you have drunk enough alcohol to experience negative consequences, otherwise please skip to PQ50

PQ46 When you first drank enough alcohol to experience negative consequences, did you KNOW (for certain) that other people you knew had done any of the following? (Please give their relationship to you, e.g. "mother", "work colleague" etc., and list as many as is applicable.)

Drank a lot of alcohol without negative outcomes _____

_____

_____

Drank a lot of alcohol with negative outcomes _____

_____

_____

PQ47 Do you think the above had any influence on your drinking behaviour?

- ❍ Yes, it might have made me MORE likely to drink
- ❍ Yes, it might have made me LESS likely to drink
- ❍ No, I don't think it had any influence
- ❍ Not sure

Q48 When you first drank enough alcohol to experience negative consequences, did you SUSPECT (without necessarily knowing for certain) that other people you knew had done any of the following? (Please give their relationship to you, e.g. "mother", "work colleague" etc., and list as many as is applicable.)

Drank a lot of alcohol without negative outcomes _____

_____

_____

Drank a lot of alcohol with negative outcomes _____

_____

_____

PQ49 Do you think the above had any influence on your drinking behaviour?

- ❍ Yes, it might have made me MORE likely to drink
- ❍ Yes, it might have made me LESS likely to drink
- ❍ No, I don't think it had any influence
- ❍ Not sure

Comments?

Answer PQ50-53 only if you have used substances, otherwise please skip to PQ54

PQ50 When you first used substances, did you KNOW (for certain) that other people you knew had done any of the following? (Please give their relationship to you, e.g. "mother", "work colleague" etc., and list as many as is applicable.)

Used substances without negative outcomes _____

_____

_____

Used substances with negative outcomes _____

_____

_____

PQ51 Do you think the above had any influence on your using substances?

- ❍ Yes, it might have made me MORE likely to use substances
- ❍ Yes, it might have made me LESS likely to use substances
- ❍ No, I don't think it had any influence
- ❍ Not sure

PQ52 When you first used substances, did you SUSPECT (without necessarily knowing for certain) that other people you knew had done any of the following? (Please give their relationship to you, e.g. "mother", "work colleague" etc., and list as many as is applicable.)

Used substances without negative outcomes _____

_____

Used substances with negative outcomes _____
_____
_____
_____

PQ53 Do you think the above had any influence on your using substances?

- ❍ Yes, it might have made me MORE likely to use substances
- ❍ Yes, it might have made me LESS likely to use substances
- ❍ No, I don't think it had any influence
- ❍ Not sure

Comments?

Answer PQ54-57 only if you have thought about harming yourself, otherwise please skip to PQ58

PQ54 When you first thought about harming yourself, did you KNOW (for certain) that other people you knew had done any of the following? (Please give their relationship to you, e.g. "mother", "work colleague" etc., and list as many as is applicable.)

Thought about harming themselves _____
_____
_____

Harmed themselves _____
_____
_____

Thought about ending their life _____
_____
_____

Attempted to end their life _____
_____
_____

Ended their life _____

_____

_____

PQ55 Do you think the above had any influence on your thinking about deliberately harming yourself?

- ❍ Yes, it might have made me MORE likely to think about harming myself
- ❍ Yes, it might have made me LESS likely to think about harming myself
- ❍ No, I don't think it had any influence
- ❍ Not sure

PQ56 When you first thought about harming yourself, did you SUSPECT (without necessarily knowing for certain) that other people you knew had done any of the following? (Please give their relationship to you, e.g. "mother", "work colleague" etc., and list as many as is applicable.)

Thought about harming themselves _____

_____

_____

Harmed themselves _____

_____

_____

Thought about ending their life _____

_____

_____

Attempted to end their life _____

_____

_____

Ended their life _____

_____

_____

PQ57 Do you think the above had any influence on your thinking about harming yourself?

- ❍ Yes, it might have made me MORE likely to think about harming myself
- ❍ Yes, it might have made me LESS likely to think about harming myself
- ❍ No, I don't think it had any influence
- ❍ Not sure

Comments?

Answer PQ58-61 only if you have harmed yourself, otherwise please skip to PQ62

PQ58 When you first harmed yourself, did you KNOW (for certain) that other people you knew had done any of the following? (Please give their relationship to you, e.g. "mother", "work colleague" etc., and list as many as is applicable.)

Thought about harming themselves _____

_____

_____

Harmed themselves _____

_____

_____

Thought about ending their life _____

_____

_____

Attempted to end their life _____

_____

_____

Ended their life _____

_____

_____

PQ59 Do you think the above had any influence on your harming yourself?

- ❍ Yes, it might have made me MORE likely to harm myself
- ❍ Yes, it might have made me LESS likely to harm myself
- ❍ No, I don't think it had any influence
- ❍ Not sure

PQ60 When you first harmed yourself, did you SUSPECT (without necessarily knowing for certain) that other people you knew had done any of the following? (Please give their relationship to you, e.g. "mother", "work colleague" etc., and list as many as is applicable.)

Thought about harming themselves _____

_____

_____

Harmed themselves _____

_____

_____

Thought about ending their life _____

_____

_____

Attempted to end their life _____

_____

_____

Ended their life _____

_____

_____

PQ61 Do you think the above had any influence on your harming yourself?

- ❍ Yes, it might have made me MORE likely to harm myself
- ❍ Yes, it might have made me LESS likely to harm myself
- ❍ No, I don't think it had any influence
- ❍ Not sure

Comments?

Answer PQ62-65 only if you have thought about ending your life, otherwise please skip to PQ66

Q62 When you first thought about ending your life, did you KNOW (for certain) that other people you knew had done any of the following? (Please give their relationship to you, e.g. "mother", "work colleague" etc., and list as many as is applicable.)

Thought about harming themselves _____
_____
_____

Harmed themselves _____
_____
_____

Thought about ending their life _____
_____
_____

Attempted to end their life _____
_____
_____

Ended their life _____
_____
_____

PQ63 Do you think the above had any influence on your thinking about ending your life?

- ❍ Yes, it might have made me MORE likely to think about ending my life
- ❍ Yes, it might have made me LESS likely to think about ending my life
- ❍ No, I don't think it had any influence
- ❍ Not sure

PQ64 When you first thought about ending your life, did you SUSPECT (without necessarily knowing for certain) that other people you knew had done any of the following? (Please give their relationship to you, e.g. "mother", "work colleague" etc., and list as many as is applicable.)

Thought about harming themselves _____
_____
_____

Harmed themselves _____
_____
_____

Thought about ending their life _____
_____
_____

Attempted to end their life _____
_____
_____

Ended their life _____
_____
_____

Q65 Do you think the above had any influence on your thinking about ending your life?

- ❍ Yes, it might have made me MORE likely to think about ending my life
- ❍ Yes, it might have made me LESS likely to think about ending my life
- ❍ No, I don't think it had any influence
- ❍ Not sure

Comments?

Answer PQ66-69 only if you have attempted to end your life, otherwise please skip to PQ70

PQ66 When you first attempted to end your life, did you KNOW (for certain) that other people you knew had done any of the following? (Please give their relationship to you, e.g. "mother", "work colleague" etc., and list as many as is applicable.)

Thought about harming themselves _____
_____
_____

Harmed themselves _____
_____
_____

Thought about ending their life _____
_____
_____

Attempted to end their life _____
_____
_____

Ended their life _____
_____
_____

PQ67 Do you think the above had any influence on your attempting to end your life?

- ❍ Yes, it might have made me MORE likely to attempt to end my life
- ❍ Yes, it might have made me LESS likely to attempt to end my life
- ❍ No, I don't think it had any influence
- ❍ Not sure

PQ68 When you first attempted to end your life, did you SUSPECT (without knowing for certain) that other people you knew had done any of the following? (Please give their relationship to you, e.g. "mother", "work colleague" etc., and list as many as is applicable.)

Thought about harming themselves _____
_____
_____

Harmed themselves _____
_____
_____

Thought about ending their life _____
_____
_____

Attempted to end their life _____
_____
_____

Ended their life _____
_____
_____

PQ69 Do you think the above had any influence on your attempting to end your life?

- ❍ Yes, it might have made me MORE likely to attempt to end my life
- ❍ Yes, it might have made me LESS likely to attempt to end my life
- ❍ No, I don't think it had any influence
- ❍ Not sure

Comments?

Answer PQ70-73 only if you have engaged in risky sexual behaviour, otherwise please skip to PQ74

PQ70 When you first engaged in risky sexual behaviour, did you KNOW (for certain) that other people you knew had done any of the following? (Please give their relationship to you, e.g. "mother", "work colleague" etc., and list as many as is applicable.)

Engaged in risky sex without negative outcomes _____

_____

_____

Engaged in risky sex with negative outcomes _____

_____

_____

PQ71 Do you think the above had any influence on your engagement in risky sex?

- ❍ Yes, it might have made me MORE likely to have risky sex
- ❍ Yes, it might have made me LESS likely to have risky sex
- ❍ No, I don't think it had any influence
- ❍ Not sure

Q72 When you first engaged in risky sexual behaviour, did you SUSPECT (without necessarily knowing for certain) that other people you knew had done any of the following? (Please give their relationship to you, e.g. "mother", "work colleague" etc., and list as many as is applicable.)

Engaged in risky sex without negative outcomes _____

_____

_____

Engaged in risky sex with negative outcomes _____

_____

_____

PQ73 Do you think the above had any influence on your engagement in risky sex?

- ❍ Yes, it might have made me MORE likely to have risky sex
- ❍ Yes, it might have made me LESS likely to have risky sex
- ❍ No, I don't think it had any influence
- ❍ Not sure

Comments?

Answer PQ74-77 only if you have gambled more than you could afford to, otherwise please skip to PQ78

PQ74 When you first gambled more than you could afford to, did you KNOW (for certain) that other people you knew had done any of the following? (Please give their relationship to you, e.g. "mother", "work colleague" etc., and list as many as is applicable.)

Gambled more than they could afford to without negative outcomes

_____

_____

_____

Gambled more than they could afford to with negative outcomes

_____

_____

_____

PQ75 Do you think the above had any influence on your gambling more than you could afford to?

- ❍ Yes, it might have made me MORE likely to gamble
- ❍ Yes, it might have made me LESS likely to gamble
- ❍ No, I don't think it had any influence
- ❍ Not sure

PQ76 When you first gambled more than you could afford to, did you SUSPECT (without necessarily knowing for certain) that other people you knew had done any of the following? (Please give their relationship to you, e.g. "mother", "work colleague" etc., and list as many as is applicable.)

Gambled more than they could afford to without negative outcomes

_____

_____

_____

Gambled more than they could afford to with negative outcomes

_____

_____

_____

PQ77 Do you think the above had any influence on your gambling more than you could afford to?

- ❍ Yes, it might have made me MORE likely to gamble
- ❍ Yes, it might have made me LESS likely to gamble
- ❍ No, I don't think it had any influence
- ❍ Not sure

Comments?

Answer PQ78-81 only if you have eaten in what might be considered an unhealthy or damaging way, otherwise please skip to PQ82

PQ78 When you first ate in what might be considered an unhealthy or damaging way, did you KNOW (for certain) that other people you knew had done any of the following? (Please give their relationship to you, e.g. "mother", "work colleague" etc., and list as many as is applicable.)

Eaten in an unhealthy/ damaging way without negative outcomes

_____

_____

_____

Eaten in an unhealthy/ damaging way with negative outcomes

_____

_____

_____

PQ79 Do you think the above had any influence on your eating in an unhealthy/ damaging way?

- ❍ Yes, it might have made me MORE likely to eat in an unhealthy/ damaging way
- ❍ Yes, it might have made me LESS likely to eat in an unhealthy/ damaging way
- ❍ No, I don't think it had any influence
- ❍ Not sure

PQ80 When you first ate in what might be considered an unhealthy or damaging way, did you SUSPECT (without necessarily knowing for certain) that other people you knew had done any of the following? (Please give their relationship to you, e.g. "mother", "work colleague" etc., and list as many as is applicable.)

Eaten in an unhealthy/ damaging way without negative outcomes

_____

_____

_____

Eaten in an unhealthy/ damaging way with negative outcomes

_____

_____

_____

PQ81 Do you think the above had any influence on your eating in an unhealthy/ damaging way?

- ❍ Yes, it might have made me MORE likely to eat in an unhealthy/ damaging way
- ❍ Yes, it might have made me LESS likely to eat in an unhealthy/ damaging way
- ❍ No, I don't think it had any influence
- ❍ Not sure

Comments?

That was the last question of the survey. Many thanks for taking part.

To help us improve it, we'd be grateful if you gave is any general comments or suggestions you might have.

PQ82 Did you find any questions particularly unclear/ difficult to understand? If so, why?

PQ83 Is there anything about the survey you think should be changed?

PQ84 Do you have any other comments about the survey?

[END OF SURVEY]

Appendix E:

Study 1 Full Survey (downloaded)

For anonymity purposes, we need a code for you that you'll be able to remember. Please enter the last 3 digits of your phone number, followed by your date of birth in dd/mm/yy format: _____

(e.g. if your phone number was 07777 123456 and your date of birth was 25/05/86, you would enter "456250586")

-----*[Page break]*-----

Some details about you, before you begin the survey...

FQ1 What sex are you?

- ❍ Male
- ❍ Female
- ❍ Other

FQ2 How old are you? _____

FQ3 Where do you study?

- ❍ Glasgow Caledonian University
- ❍ University of Glasgow
- ❍ University of Strathclyde

FQ4 What are you studying?

Subject (e.g. Maths, Psychology) _____

Level (e.g. BSc, BA) _____

FQ5 What year of your course are you in? _____

FQ6 Where do you live?

- ❍ Family home
- ❍ University halls
- ❍ Private accommodation with friends
- ❍ Private accommodation with partner
- ❍ Private accommodation with strangers
- ❍ Other (please specify) _____

-----[Page break]-----

The Survey

For the following questions, please tick the answer that most closely represents what you think/ feel, or type your answer where indicated. If there does not seem to be an answer that fits your point of view exactly, or you're not sure of the answer, please just choose the closest to what you think.

Please note:
Some of the questions ask about whether you or people you know engage in certain behaviours. Please answer these with regard to both current behaviour and behaviour in the past (e.g. if you used to do something but don't anymore, we are still interested).

The "not applicable" option should only be chosen if a question doesn't apply to you (for example, if it asks about your children and you don't have children).

When this survey refers to "substance use", it means substances such as marijuana, cocaine, LSD, amphetamines, ecstasy, heroin etc.

When it refers to "harming oneself", it means for example deliberately taking an overdose (e.g., pills or other medication) or trying to harm oneself in some other way (such as cutting oneself).

When it refers to "ending one's life", it specifically means deliberately dying by suicide.

Remember: We're interested in your thoughts and feelings; there are no right or wrong answers. If you're not sure about anything, just tell us what you think.

-----*[Page break]*-----

If at any time you change your mind and wish to discontinue your participation, please select the statement at the bottom of the page and click the ">>" (next page) arrow. This will take you to the end of the survey, and will let us know that you want to be excluded from the study.

The statement will look like this:
Opt-out: I no longer wish to take part; please exclude me from the study.

❍ Select this box and click the ">>" arrow to terminate the survey

-----*[Page break]*-----

FQ7 Have you ever drank so much alcohol that it made you ill or caused you any other negative consequences (e.g. injury, missing work/ university)?

❍ Never
❍ I have done occasionally in the past, but not anymore
❍ I have done regularly in the past, but not anymore
❍ I do so occasionally
❍ I do so regularly/ often

FQ8 Have you ever used substances?

❍ Never
❍ I have done occasionally in the past, but not anymore
❍ I have done regularly in the past, but not anymore
❍ I do so occasionally
❍ I do so regularly/ often

FQ9 Have you ever thought about harming yourself?

- ❍ Never
- ❍ I have done occasionally in the past, but not anymore
- ❍ I have done regularly in the past, but not anymore
- ❍ I do so occasionally
- ❍ I do so regularly/ often

FQ10 Have you ever actually harmed yourself?

- ❍ Never
- ❍ I have done occasionally in the past, but not anymore
- ❍ I have done regularly in the past, but not anymore
- ❍ I do so occasionally
- ❍ I do so regularly/ often

FQ11 Have you ever thought about ending your life?

- ❍ Never
- ❍ I have done occasionally in the past, but not anymore
- ❍ I have done regularly in the past, but not anymore
- ❍ I do so occasionally
- ❍ I do so regularly/ often

FQ12 Have you ever attempted to end your life?

- ❍ Never
- ❍ I have done occasionally in the past, but not anymore
- ❍ I have done regularly in the past, but not anymore
- ❍ I do so occasionally
- ❍ I do so regularly/ often

FQ13 Have you ever had unprotected or otherwise risky sex?

- ❍ Never
- ❍ I have done occasionally in the past, but not anymore
- ❍ I have done regularly in the past, but not anymore
- ❍ I do so occasionally
- ❍ I do so regularly/ often

FQ14 Have you ever gambled more than you could afford to?

- ❍ Never
- ❍ I have done occasionally in the past, but not anymore
- ❍ I have done regularly in the past, but not anymore
- ❍ I do so occasionally
- ❍ I do so regularly/ often

FQ15 Have you ever eaten in a way that might be considered unhealthy or damaging?

- ❍ Never
- ❍ I have done occasionally in the past, but not anymore
- ❍ I have done regularly in the past, but not anymore
- ❍ I do so occasionally
- ❍ I do so regularly/ often

Opt-out: I no longer wish to take part; please exclude me from the study.

- ❍ Select this box and click the ">>" arrow to terminate the survey

-----*[Page break]*-----

FQ16 Do you think the following people ever drink so much alcohol that it makes them ill or causes them any other negative consequences (e.g. injury, missing work/ university)?

	Never	Have done occasionally in the past, but not anymore	Have done regularly in the past, but not anymore	Do so occasionally	Do so regularly/ often	Not applicable
Your close friends	❍	❍	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍	❍	❍
Your partner (if applicable)	❍	❍	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍	❍	❍
Students in general	❍	❍	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍	❍	❍
People in general	❍	❍	❍	❍	❍	❍

FQ17 Do you think the following people ever use substances?

	Never	Have done occasionally in the past, but not anymore	Have done regularly in the past, but not anymore	Do so occasionally	Do so regularly/ often	Not applicable
Your close friends	❍	❍	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍	❍	❍
Your partner (if applicable)	❍	❍	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍	❍	❍
Students in general	❍	❍	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍	❍	❍
People in general	❍	❍	❍	❍	❍	❍

FQ18 Do you think the following people ever think about harming themselves?

	Never	Have done occasionally in the past, but not anymore	Have done regularly in the past, but not anymore	Do so occasionally	Do so regularly/ often	Not applicable
Your close friends	❍	❍	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍	❍	❍
Your partner (if applicable)	❍	❍	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍	❍	❍
Students in general	❍	❍	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍	❍	❍
People in general	❍	❍	❍	❍	❍	❍

FQ19 Do you think the following people ever actually harm themselves?

	Never	Have done occasionally in the past, but not anymore	Have done regularly in the past, but not anymore	Do so occasionally	Do so regularly/ often	Not applicable
Your close friends	❍	❍	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍	❍	❍
Your partner (if applicable)	❍	❍	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍	❍	❍
Students in general	❍	❍	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍	❍	❍
People in general	❍	❍	❍	❍	❍	❍

FQ20 Do you think the following people ever think about ending their lives?

	Never	Have done occasionally in the past, but not anymore	Have done regularly in the past, but not anymore	Do so occasionally	Do so regularly/ often	Not applicable
Your close friends	❍	❍	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍	❍	❍
Your partner (if applicable)	❍	❍	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍	❍	❍
Students in general	❍	❍	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍	❍	❍
People in general	❍	❍	❍	❍	❍	❍

FQ21 Do you think the following people ever attempt to end their lives?

	Never	Have done occasionally in the past, but not anymore	Have done regularly in the past, but not anymore	Do so occasionally	Do so regularly/ often	Not applicable
Your close friends	❍	❍	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍	❍	❍
Your partner (if applicable)	❍	❍	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍	❍	❍
Students in general	❍	❍	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍	❍	❍
People in general	❍	❍	❍	❍	❍	❍

FQ22 Do you think members of the following groups of people ever actually end their lives?

	Never	Occasionally	Regularly/often	Not applicable
Your close friends	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍
Students in general	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍
People in general	❍	❍	❍	❍

FQ23 Do you think the following people ever have unprotected or otherwise risky sex?

	Never	Have done occasionally in the past, but not anymore	Have done regularly in the past, but not anymore	Do so occasionally	Do so regularly/ often	Not applicable
Your close friends	❍	❍	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍	❍	❍
Your partner (if applicable)	❍	❍	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍	❍	❍
Students in general	❍	❍	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍	❍	❍
People in general	❍	❍	❍	❍	❍	❍

FQ24 Do you think the following people ever gamble more than they can afford to?

	Never	Have done occasionally in the past, but not anymore	Have done regularly in the past, but not anymore	Do so occasionally	Do so regularly/ often	Not applicable
Your close friends	❍	❍	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍	❍	❍
Your partner (if applicable)	❍	❍	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍	❍	❍
Students in general	❍	❍	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍	❍	❍
People in general	❍	❍	❍	❍	❍	❍

FQ25 Do you think the following people ever eat in a way that might be considered unhealthy or damaging?

	Never	Have done occasionally in the past, but not anymore	Have done regularly in the past, but not anymore	Do so occasionally	Do so regularly/ often	Not applicable
Your close friends	❍	❍	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍	❍	❍
Your partner (if applicable)	❍	❍	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍	❍	❍
Students in general	❍	❍	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍	❍	❍
People in general	❍	❍	❍	❍	❍	❍

Opt-out: I no longer wish to take part; please exclude me from the study.

❍ Select this box and click the ">>" arrow to terminate the survey

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FQ26 Which statement about drinking enough to cause oneself negative consequences do you feel best represents your own attitude?

❍ It is completely wrong for an individual to drink that much

❍ There are certain circumstances under which I can understand why an individual might drink that much

❍ It is completely OK for an individual to drink that much

FQ27 Which statement about using substances do you feel best represents your own attitude?

- ❍ It is completely wrong for an individual to use substances
- ❍ There are certain circumstances under which I can understand why an individual might use substances
- ❍ It is completely OK for an individual to use substances

FQ28 Which statement about harming oneself do you feel best represents your own attitude?

- ❍ It is completely wrong for an individual to harm themselves
- ❍ There are certain circumstances under which I can understand why an individual might harm themselves
- ❍ It is completely OK for an individual to harm themselves

FQ29 Which statement about attempting to end one's life do you feel best represents your own attitude?

- ❍ It is completely wrong for an individual to attempt to end their life
- ❍ There are certain circumstances under which I can understand why an individual might attempt to end their life
- ❍ It is completely OK for an individual to attempt to end their life

FQ30 Which statement about risky sexual behaviour do you feel best represents your own attitude?

- ❍ It is completely wrong for an individual to engage in risky sexual behaviour
- ❍ There are certain circumstances under which I can understand why an individual might engage in risky sexual behaviour
- ❍ It is completely OK for an individual to engage in risky sexual behaviour

FQ31 Which statement about gambling more than one can afford to do you feel best represents your own attitude?

- ❍ It is completely wrong for an individual to gamble more than they can afford
- ❍ There are certain circumstances under which I can understand why an individual might gamble more than they can afford
- ❍ It is completely OK for an individual to gamble more than they can afford

FQ32 Which statement about unhealthy or damaging eating behaviour do you feel best represents your own attitude?

- ❍ It is completely wrong for an individual to eat in an unhealthy or damaging way
- ❍ There are certain circumstances under which I can understand why an individual might eat in an unhealthy or damaging way
- ❍ It is completely OK for an individual to eat in an unhealthy or damaging way

Opt-out: I no longer wish to take part; please exclude me from the study.

- ❍ Select this box and click the ">>" arrow to terminate the survey

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FQ33 Which statement about drinking enough to cause oneself negative consequences do you feel best represents the attitudes of the following people?

	It is completely wrong for an individual to drink that much	There are certain circumstances under which one can understand why an individual might drink that much	It is completely OK for an individual to drink that much	Not applicable
Your close friends	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍
Your partner (if applicable)	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍
Students in general	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍
People in general	❍	❍	❍	❍

FQ34 Which statement about using substances do you feel best represents the attitudes of the following people?

	It is completely wrong for an individual to use substance	There are certain circumstances under which one can understand why an individual might use substances	It is completely OK for an individual to use substances	Not applicable
Your close friends	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍
Your partner (if applicable)	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍
Students in general	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍
People in general	❍	❍	❍	❍

FQ35 Which statement about harming oneself do you feel best represents the attitudes of the following people?

	It is completely wrong for an individual to harm themselves	There are certain circumstances under which one can understand why an individual might harm themselves	It is completely OK for an individual to harm themselves	Not applicable
Your close friends	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍
Your partner (if applicable)	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍
Students in general	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍
People in general	❍	❍	❍	❍

FQ36 Which statement about attempting to end one's life do you feel best represents the attitudes of the following people?

	It is completely wrong for an individual to attempt to end their life	There are certain circumstances under which one can understand why an individual might attempt to end their life	It is completely OK for an individual to attempt to end their life	Not applicable
Your close friends	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍
Your partner (if applicable)	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍
Students in general	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍
People in general	❍	❍	❍	❍

FQ37 Which statement about risky sexual behaviour do you feel best represents the attitudes of the following people?

	It is completely wrong for an individual to engage in risky sexual behaviour	There are certain circumstances under which one can understand why an individual might engage in risky sexual	It is completely OK for an individual to engage in risky sexual behaviour	Not applicable
Your close friends	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍
Your partner (if applicable)	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍
Students in general	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍
People in general	❍	❍	❍	❍

FQ38 Which statement about gambling more than one can afford to do you feel best represents the attitudes of the following people?

	It is completely wrong for an individual to gamble more than they can afford	There are certain circumstances under which one can understand why an individual might gamble more than they	It is completely OK for an individual to gamble more than they can afford	Not applicable
Your close friends	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍
Your partner (if applicable)	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍
Students in general	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍
People in general	❍	❍	❍	❍

FQ39 Which statement about unhealthy or damaging eating behaviour do you feel best represents the attitudes of the following people?

	It is completely wrong for an individual to eat in an unhealthy or damaging way	There are certain circumstances under which one can understand why an individual might eat in an unhealthy or	It is completely OK for an individual to eat in an unhealthy or damaging way	Not applicable
Your close friends	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍
Your parents/ guardians etc.	❍	❍	❍	❍
Your partner (if applicable)	❍	❍	❍	❍
Your children (if applicable)	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍
Students the same sex as you	❍	❍	❍	❍
Students at your uni	❍	❍	❍	❍
Students in general	❍	❍	❍	❍
People your age in general	❍	❍	❍	❍
People in general	❍	❍	❍	❍

Opt-out: I no longer wish to take part; please exclude me from the study.

❍ Select this box and click the ">>" arrow to terminate the survey

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NB: Questions FQ40-41 only appear if participants responding positively to question FQ7

FQ40 When you first drank so much alcohol that you experienced negative consequences, did you KNOW (for certain) or SUSPECT (without knowing for sure) that other people you knew had done so? (Please type in their relationship to you, e.g., "mother", "work colleague" etc., and list as many as is applicable.)

I KNEW that the following people had drunk that much _____

I SUSPECTED that the following people had drunk that much _____

FQ41 Do you think the above had any influence on your drinking behaviour?

❍ Yes, it might have made me MORE likely to drink

❍ Yes, it might have made me LESS likely to drink

❍ No, I don't think it had any influence

❍ Not sure

Opt-out: I no longer wish to take part; please exclude me from the study.

❍ Select this box and click the ">>" arrow to terminate the survey

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NB: Questions FQ42-43 only appear if participants responding positively to question FQ8

FQ42 When you first used substances, did you KNOW (for certain) or SUSPECT (without knowing for sure) that other people you knew had done so? (Please type in their relationship to you, e.g., "mother", "work colleague" etc., and list as many as is applicable.)

I KNEW that the following people had used substances _____

SUSPECTED that the following people had used substances _____

FQ43 Do you think the above had any influence on your using substances?

- ❍ Yes, it might have made me MORE likely to use substances
- ❍ Yes, it might have made me LESS likely to use substances
- ❍ No, I don't think it had any influence
- ❍ Not sure

Opt-out: I no longer wish to take part; please exclude me from the study.

- ❍ Select this box and click the ">>" arrow to terminate the survey

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NB: Questions FQ44-45 only appear if participants responding positively to question FQ9

FQ44 When you first thought about harming yourself, did you KNOW (for certain) or SUSPECT (without knowing for sure) that other people you knew had done any of the following? (Please type in their relationship to you, e.g., "mother", "work colleague" etc., and list as many as is applicable.)

FQ45 Do you think the above had any influence on your thinking about harming yourself?

- ❍ Yes, it might have made me MORE likely to think about harming myself
- ❍ Yes, it might have made me LESS likely to think about harming myself
- ❍ No, I don't think it had any influence
- ❍ Not sure

Opt-out: I no longer wish to take part; please exclude me from the study.

- ❍ Select this box and click the ">>" arrow to terminate the survey

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NB: Questions FQ46-47 only appear if participants responding positively to question FQ10

FQ46 When you first harmed yourself, did you KNOW (for certain) or SUSPECT (without knowing for sure) that other people you knew had done any of the following? (Please type in their relationship to you, e.g., "mother", "work colleague" etc., and list as many as is applicable.)

	Thought about harming themselves	Harmed themselves	Thought about ending their life	Attempted to end their life	Ended their life (
I KNEW that the following people had...					
I SUSPECTED that the following people had...					

FQ47 Do you think the above had any influence on your harming yourself?

- ❍ Yes, it might have made me MORE likely to harm myself
- ❍ Yes, it might have made me LESS likely to harm myself
- ❍ No, I don't think it had any influence
- ❍ Not sure

Opt-out: I no longer wish to take part; please exclude me from the study.

- ❍ Select this box and click the ">>" arrow to terminate the survey

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NB: Questions FQ48-49 only appear if participants responding positively to question FQ11

FQ48 When you first thought about ending your life, did you KNOW (for certain) or SUSPECT (without knowing for sure) that other people you knew had done any of the following? (Please type in their relationship to you, e.g., "mother", "work colleague" etc., and list as many as is applicable.)

	Thought about harming themselves	Harmed themselves	Thought about ending their life	Attempted to end their life	Ended their life
I KNEW that the following people had...					
I SUSPECTED that the following people had...					

FQ49 Do you think the above had any influence on your thinking about ending your life?

- ❍ Yes, it might have made me MORE likely to think about ending my life
- ❍ Yes, it might have made me LESS likely to think about ending my life
- ❍ No, I don't think it had any influence
- ❍ Not sure

Opt-out: I no longer wish to take part; please exclude me from the study.

- ❍ Select this box and click the ">>" arrow to terminate the survey

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NB: Questions FQ50-51 only appear if participants responding positively to question FQ12

FQ50 When you first attempted to end your life, did you KNOW (for certain) or SUSPECT (without knowing for sure) that other people you knew had done any of the following? (Please type in their relationship to you, e.g., "mother", "work colleague" etc., and list as many as is applicable.)

	Thought about harming themselves	Harmed themselves	Thought about ending their life	Attempted to end their life	Ended their life
I KNEW that the following people had...					
I SUSPECTED that the following people had...					

FQ51 Do you think the above had any influence on your attempting to end your life?

- ❍ Yes, it might have made me MORE likely to attempt to end my life
- ❍ Yes, it might have made me LESS likely to attempt to end my life
- ❍ No, I don't think it had any influence
- ❍ Not sure

Opt-out: I no longer wish to take part; please exclude me from the study.

- ❍ Select this box and click the ">>" arrow to terminate the survey

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NB: Questions FQ52-53 only appear if participants responding positively to question FQ13

FQ52 When you first engaged in risky sexual behaviour, did you KNOW (for certain) or SUSPECT (without knowing for sure) that other people you knew had done so? (Please type in their relationship to you, e.g., "mother", "work colleague" etc., and list as many as is applicable.)

I KNEW that the following people had engaged in risky sex _____

I SUSPECTED that the following people had engaged in risky sex _____

FQ53 Do you think the above had any influence on your engagement in risky sex?

- ❍ Yes, it might have made me MORE likely to have risky sex
- ❍ Yes, it might have made me LESS likely to have risky sex
- ❍ No, I don't think it had any influence
- ❍ Not sure

Opt-out: I no longer wish to take part; please exclude me from the study.

- ❍ Select this box and click the ">>" arrow to terminate the survey

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NB: Questions FQ54-55 only appear if participants responding positively to question FQ14

FQ54 When you first gambled more than you could afford to, did you KNOW (for certain) or SUSPECT (without knowing for sure) that other people you knew had done so? (Please type

in their relationship to you, e.g., "mother", "work colleague" etc., and list as many as is applicable.)

I KNEW that the following people had gambled more than they could afford to

_____

I SUSPECTED that the following people had gambled more than they could afford to

_____

FQ55 Do you think the above had any influence on your gambling more than you could afford to?

- ❍ Yes, it might have made me MORE likely to gamble
- ❍ Yes, it might have made me LESS likely to gamble
- ❍ No, I don't think it had any influence
- ❍ Not sure

Opt-out: I no longer wish to take part; please exclude me from the study.

- ❍ Select this box and click the ">>" arrow to terminate the survey

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NB: Questions FQ56-57 only appear if participants responding positively to question FQ15

FQ56 When you first ate in what might be considered an unhealthy or damaging way, did you KNOW (for certain) or SUSPECT (without knowing for sure) that other people you knew had done so? (Please type in their relationship to you, e.g., "mother", "work colleague" etc., and list as many as is applicable.)

I KNEW that the following people had eaten in an unhealthy/ damaging way

_____

I SUSPECTED that the following people had eaten in an unhealthy/ damaging way

_____

FQ57 Do you think the above had any influence on your eating in an unhealthy/ damaging way?

- ❍ Yes, it might have made me MORE likely to eat in an unhealthy/ damaging way
- ❍ Yes, it might have made me LESS likely to eat in an unhealthy/ damaging way
- ❍ No, I don't think it had any influence
- ❍ Not sure

[END OF SURVEY]

Appendix F:

Study 2 Letter to LEAs

School of Psychological Sciences and Health

Social norms of health behaviours in adolescents

Dear Sir/Madam,

My name is Jody Quigley and I am a second year PhD Psychology student at the University of Strathclyde. I am writing to request permission to invite schools in your authority to participate in a study investigating the social norms of health behaviours in an adolescent population.

The social norms of a given behaviour are the typical or "normal" rates at which people engage in, or are perceived to engage in, that behaviour. Typical rates of most behaviours are reasonably easy to measure, either through observation, asking people directly, or through studying official records. Some behaviours however, are slightly more difficult to observe – especially during adolescence – due to the sensitivity around asking about them, the secretiveness with which people engage in them, or because they might cause embarrassment. For example, young people may feel reluctant to admit to adults that they drink alcohol in case they get into trouble. We are interested in the levels of health-related behaviours that occur within a non-clinical adolescent population, and the levels those behaviours observed/perceived in the social environment within which adolescents function. That is, we are interested in exploring the social norms of health-related behaviours which may otherwise go undetected.

I would like to invite high-school pupils aged 12 years and over to complete an anonymous, paper-based survey about their own health behaviours and the health behaviours of those around them. The behaviours I intend to ask about are: alcohol consumption, tobacco smoking, drug use, self-harm, suicide, unhealthy eating, exercising, wearing seatbelts and help-seeking. I will recruit as many participants as possible, to ensure that my findings capture a broad range of individuals (thereby maximising generalisability). As such, I would hope to gather large groups of pupils together to complete the surveys en masse, in one

sitting; perhaps in year groups, for example. The survey should take approximately 30-45 minutes to complete, but in addition to time allowed for information provision and addressing any questions pupils might have, I envisage the whole process lasting approximately 1 hour.

With your permission, I would in the first instance approach head-teachers to obtain permission to write to parents. I would then write to parents (via the school) detailing the purposes and methods of my study, and inviting them to sign and return an assent form to me (again via the school) if they are happy for their child to be involved. (Please note: parental assent will only be requested if the child is 16 or under – those with children 17 or over will not be required to take any action.) Pupils will also be provided with a separate information sheet of their own, at this point. Contact details for me, my supervisor and the University Ethics Committee will be provided, should parents have any questions or concerns. I would then arrange mutually convenient times/dates for me to attend the school and collect my data. On the day of data collection, I would provide the pupils for whom I have received parental assent with another information sheet (the same as before, in case they have mislaid it/ forgotten the details of the study) and a consent form, address any questions or concerns as necessary, and finally distribute the surveys. Completed surveys would be submitted there and then, in unmarked, sealed envelopes. Pupils would then receive a sheet containing a list of contact details for relevant sources of advice and support, should they feel they need it.

Assent/ consent forms will necessarily contain pupils' names, but these will be stored separately to data so that no pupil's data is identifiable as belonging to that individual. No identifiable data will be collected on the actual survey, but anonymity codes will be generated by the pupils themselves, based on information they will remember (e.g. the day of the month they were born, the first letter of their mother's name etc.). If at any time after participating, individuals wish to have their data removed from analyses, they will be instructed to pass their anonymity code to me (either directly or through a teacher, if they prefer), and I will remove from my analyses the survey pertaining to that code.

No school or individual pupils will be identifiable in any written reports. I have an up-to-date Disclosure Scotland certificate, and the study has been granted ethical approval by the University of Strathclyde Ethics Committee.

I hope you will allow schools in your authority to take part in this study. I will, of course, be happy to send you a report based on the findings from the research, and would be happy to discuss them with you. If you require any further information, please do not hesitate to contact me or my supervisor. If you wish to contact an independent person to whom any questions may be directed or from whom further information may be sought, you can also contact the University Ethics Committee (details below).

Many thanks in advance for your consideration.
Yours sincerely,

Jody Quigley
(PhD Researcher)

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Appendix G:

Study 2 Letter to Head-teachers

School of Psychological Sciences and Health

Social norms of health behaviours in adolescents

Dear (name of head-teacher),

My name is Jody Quigley and I am a second year PhD Psychology student at the University of Strathclyde. I am writing to request permission to invite pupils at (name of school) to participate in a study investigating the social norms of health behaviours in an adolescent population.

The social norms of a given behaviour are the typical or "normal" rates at which people engage in, or are perceived to engage in, that behaviour. Typical rates of most behaviours are reasonably easy to measure, either through observation, asking people directly, or through studying official records. Some behaviours however, are slightly more difficult to observe – especially during adolescence – due to the sensitivity around asking about them, the secretiveness with which people engage in them, or because they might cause embarrassment. For example, young people may feel reluctant to admit to adults that they drink alcohol in case they get into trouble. We are interested in the levels of health-related behaviours that occur within a non-clinical adolescent population, and the levels of those behaviours observed/perceived in the social environment within which adolescents function. That is, we are interested in exploring the social norms of health-related behaviours which may otherwise go undetected.

I would like to invite as many of your pupils as possible, aged 12 years and over, to complete an anonymous, paper-based survey about their own health behaviours and the health behaviours of those around them. The behaviours I intend to ask about are: alcohol consumption, tobacco smoking, drug use, self-harm, suicide, unhealthy eating, exercising, wearing seatbelts and help-seeking. I aim to recruit as many participants as possible to ensure that my findings capture a broad range of individuals, thereby maximising generalisability. As such, I would hope to gather large groups of pupils together to complete

the surveys en masse, in one sitting; perhaps in year groups, for example. The survey should take approximately 30-45 minutes to complete, but in addition to time allowed for information provision and addressing any questions pupils might have, I envisage the whole process lasting approximately 1 hour.

With your permission, I would write to parents (via the school) detailing the purposes and methods of my study, and inviting them to sign and return an assent form to me (again via the school) if they are happy for their child to be involved. (Please note: parental assent will only be requested if the child is 16 or under – those with children 17 or over will not be required to take any action.) Pupils will also be provided with a separate information sheet of their own, at this point. Contact details for me, my supervisor and the University Ethics Committee will be provided, should parents have any questions or concerns. I would then arrange mutually convenient times/dates for me to attend the school and collect my data. On the day of data collection, I would provide the pupils for whom I have received parental assent with another information sheet (the same as before, in case they have mislaid it/ forgotten the details of the study) and a consent form, address any questions or concerns as necessary, and finally distribute the surveys. Completed surveys would be submitted there and then, in unmarked, sealed envelopes. Pupils would then receive a debrief sheet, containing contact details for relevant sources of advice and support, should they feel they need it.

Assent/ consent forms will necessarily contain pupils' names, but these will be stored separately to data so that no pupil's data is identifiable as belonging to that individual. No identifiable data will be collected on the actual survey, but anonymity codes will be generated by the pupils themselves, based on information they will remember (e.g. the day of the month they were born, the first letter of their mother's name etc.). If at any time after participating, individuals wish to have their data removed from analyses, they will be instructed to pass their anonymity code to me (either directly or through a teacher, if they prefer), and I will remove from my analyses the survey pertaining to that code.

No school or individual pupils will be identifiable in any written reports. I have received permission from the Local Education Authority, I have an up-to-date Disclosure Scotland certificate, and the study has been granted ethical approval by the University of Strathclyde Ethics Committee.

All pupils who participate will be provided with a list of relevant sources of advice and support, should they require it. Although no adverse effects of participation are anticipated, due to the nature of some of the behaviours under exploration, it would be extremely helpful if, in addition, the school support/ counselling service were available around the time of data collection, in the event that one of the pupils becomes distressed or upset as a result of participating. I would be more than happy to discuss this in more detail, if necessary.

I hope you will allow pupils from (name of school) to take part in this study. I will, of course, be happy to send you a report based on the findings from the research, and would be happy to discuss them with you. If you require any further information, please do not hesitate to contact me or my supervisor. If you wish to contact an independent person to whom any questions may be directed or from whom further information may be sought, you can also contact the University Ethics Committee (details below).

Many thanks in advance for your consideration.
Yours sincerely,

Jody Quigley
(PhD Researcher)

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Appendix H:

Study 2 Letter to Parents

School of Psychological Sciences and Health

Social norms of health behaviours in adolescents

Dear Parent/Guardian,

My name is Jody Quigley and I am a second year PhD Psychology student at the University of Strathclyde. I am writing to invite your child to participate in a study that I am conducting as part of my doctoral thesis, investigating the social norms of health behaviours in adolescents.

The social norms of a given behaviour are the typical or "normal" rates at which people engage in, or are perceived to engage in, that behaviour. Typical rates of most behaviours are reasonably easy to measure, either through observation, asking people directly, or through studying official records. Some behaviours however, are slightly more difficult to observe – especially during adolescence – due to the sensitivity around asking about them, the secretiveness with which people engage in them, or because they might cause embarrassment. It is these behaviours in which I am interested. Please see the attached information sheet for further details on the background and purposes of the study, and how your child will be involved (if they choose to participate).

I have received permission to conduct this study from the University of Strathclyde Ethics Committee, the Local Education Authority and from your child's head-teacher, and I have also been checked by Disclosure Scotland. The University of Strathclyde is registered with the Information Commissioner's Office who implements the Data Protection Act 1998. All personal data on participants will be processed in accordance with the provisions of the Data Protection Act 1998. All responses your child gives will be anonymous, confidential, and unidentifiable as belonging to them, and all information provided on the consent form will be kept confidential and stored separately from the responses your child gives to the survey.

I hope that you will allow your child to participate. However, this study is entirely voluntary, and you or your child are free to decide not to take part. All pupils will also be asked to confirm whether or not they wish to take part on the day of data collection, and it will be made clear to your child that they can stop taking part even after they have started completing the survey without giving a reason and without any consequences.

If you are happy for your child to participate in this study, please complete the attached assent form and return it to the school.

If you have any questions about the study, please do not hesitate to contact me or my supervisor, Dr Susan Rasmussen. If you wish to contact an independent person to whom any questions may be directed or from whom further information may be sought, you can also contact the Secretary to the University Ethics Committee.

Many thanks in advance for your consideration.
Yours sincerely,

Jody Quigley
(PhD Researcher)

Contact details:

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Appendix I:

Study 2 Parent Information Sheet

School of Psychological Sciences and Health

Social norms of health behaviours in adolescents

Information for Parents/ Guardians

This study is being conducted by Jody Quigley; a PhD student at the University of Strathclyde, as part of her doctoral thesis.

What is the purpose of this investigation?

The social norms of a given behaviour are the typical or "normal" rates at which people engage in, or are perceived to engage in, that behaviour. The purpose of this study is to investigate the social norms around health behaviours. Typical rates of most behaviours are reasonably easy to measure, either through observation, asking people directly, or through studying official records. Some behaviours however, are slightly more difficult to observe – especially during adolescence – due to the sensitivity around asking about them, the secretiveness with which people engage in them, or because they might cause embarrassment. For example, adolescents may feel reluctant to admit to drinking alcohol in case they get into trouble. As such, the incidence of these behaviours is not clear. We are interested in the health-related behaviours that occur within a non-clinical adolescent population, and the health-related behaviours that adolescents observe/perceive in the social environment around them. That is, we are interested in exploring the social norms of health-related behaviours which may otherwise go undetected.

Does my child have to take part?

No, they do not have to take part. Participating in this study is completely voluntary, and it is up to you and your child to decide whether they will participate. Your child has been provided with their own information sheet - it might be helpful to discuss the project with your child and decide between you whether or not they would like to be involved. If you do not wish them to take part, or they do not wish to take part themselves, that is absolutely fine. Similarly, if they agree to take part and later decide that they would like to be

withdrawn from the study, they are free to do so at any time, without giving a reason and without any detriment to them.

What will my child do if they take part?

If you and your child decide that they will take part, they will be invited to complete a paper-based survey in a classroom at their own school, during school hours, consisting of a series of short questions about their own behaviour and the behaviour of those around them. The behaviours they will be asked about are: alcohol consumption, tobacco smoking, substance use, self-harm, suicide, unhealthy eating, exercising, wearing a seatbelt and help-seeking. For most of the questions, they will simply be invited to select (by ticking a box) the appropriate answer from a list of options. There are a small number of questions where they will be asked to write an answer but these will require very short one- or two-word answers. The whole process will take no more than 1 hour, and surveys will be collected there and then, in unmarked envelopes.

Why has my child been invited to take part?

They have been invited to take part because they are an adolescent high-school student at a Scottish state school, over the age of 12 years.

What are the potential risks to my child in taking part?

Due to the nature of the topics the survey explores, there is a small possibility that your child may experience some psychological discomfort in answering some of the questions. If you (or they) think that they may find it distressing to think about health-related behaviours in which they or someone they know may have engaged, then we advise that they do not participate in this study. If they decide to participate and become upset, they are free to withdraw at any point, without explanation. Contact details for sources of advice and support will be provided at the end of the study.

What happens to the information collected in the study?

All information gathered during this study will be kept confidential. Your child will at no point be asked to provide their name, so all of their data will be completely anonymous. No identifying information will be included in any publications or presentations of results. Data will be stored on a secure, password-protected computer, and only the researchers named on this sheet will have access to your data. Data will be kept for 5 years after publication and then destroyed, securely.

When completing the survey, your child will be asked to generate their own unique anonymity code, based on information they will remember (e.g. the day of the month they were born, the first letter of their mother's first name). This code will mean that should they at a later date wish to have their data removed from the study, they can simply contact the researcher with their code, and we will remove their survey from the study – without their anonymity being compromised.

The University of Strathclyde is registered with the Information Commissioner's Office who implements the Data Protection Act 1998. All personal data on participants will be processed in accordance with the provisions of the Data Protection Act 1998.

What happens next?

Should you or your child have any questions or concerns before you decide whether they will participate, the researchers (contact details below) would be more than happy to address them with you.

If you are happy for them to take part, please complete the attached assent form and return it to the school. The assent forms will be stored separately from the data we collect, so your child's responses will remain entirely anonymous. (Please note that if your child is 17 or over, you will not need to provide assent for them to participate – they can consent for themselves.)

Once the study is complete, results will be written up both for use as part of a doctoral thesis, and for publication in a peer-reviewed journal. As such, the full report on the study will be available publically.

If you have decided you do not want your child to participate, thank you for the time you have taken in considering it.

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Phone: 0141 548 2575

This investigation was granted ethical approval by the University of Strathclyde ethics committee. If you or your child have any questions/ concerns during or after the investigation, or wish to contact an independent person to whom any questions may be directed or from whom further information may be sought, please contact:

Secretary to the University Ethics Committee

Research & Knowledge Exchange Services
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Appendix J:

Study 2 Parent Assent Form

School of Psychological Sciences and Health

Social norms of health behaviours in adolescents

Parent/ Guardian assent

- I confirm that I have read and understood the information sheet for the above project and the researcher has answered any queries to my satisfaction.
- I understand that my child's participation is voluntary and that they are free to withdraw from the project at any time, without having to give a reason and without any consequences.
- I understand that my child can withdraw their data from the study at any time.
- I understand that any information recorded in the investigation will remain confidential and anonymous and no information that identifies my child will be made publicly available.
- I assent to my child being a participant in the project.

I, _____ (print name)	Hereby assent to my child _____ (print name) participating in the above study.
Signature of parent/ guardian: _____	Date: _____

Appendix K:

Study 2 Participant Information Sheet

School of Psychological Sciences and Health

Social norms of health behaviours in adolescents

Information for Pupils

My name is Jody Quigley and I am running a project about the social norms of health-related behaviours in high-school pupils, as part of my university course.

What is the purpose of this project?

When we talk about the "social norms" of a behaviour, we mean how often most people carry out that behaviour. I am interested in the social norms of behaviours relating to health in high-school pupils in Scotland.

Do you have to take part?

No, you do not have to take part; it's completely up to you to decide whether or not you want to. If you don't want to take part, that's absolutely fine. If you agree to take part but then change your mind later, that's ok too. You can stop taking part at any time and you won't have to give a reason.

What will I do if I take part?

If you decide to take part, you'll first be asked to sign a consent form saying that you understand what you're going to do, and then you'll be invited to fill in a paper survey with questions about your own health-related behaviour and the behaviour of people you know. The behaviours you will be asked about are: drinking alcohol, smoking, drug use, self-harm, suicide, unhealthy eating, exercising, wearing a seatbelt and help-seeking. For most of the questions, you'll be asked to tick a box to show which answer is closest to your situation, but there are some questions where you'll be asked to write a short answer (only one or two words). Your survey will be collected in at the end, in an envelope, and your name won't be anywhere on the survey so no one will know what responses you gave. The whole thing will take less than an hour.

Why have I been invited to take part?

You have been invited to take part because you are a pupil at a Scottish high-school, over the age of 12 years.

Is there anything to worry about if I take part?

There is a small chance that you might find some of the questions difficult to answer, or you might be reminded about things that have happened to you or to someone you know. If you find any of the questions upsetting to think about, you don't have to answer them. If you become upset while you're taking part, it's ok for you to stop, and you won't have to give a reason. You'll be given a list of places from which you can get help or advice, at the end.

What happens to the information collected in the study?

You won't be asked to put your name anywhere on your survey, so no one will know what responses you give. You'll be asked to make up your own private code so that if you later decide that you would like to have your survey removed from the study, we can do this without anyone being able to tell what your responses were.

What happens next?

If you have any questions before you decide whether to take part, I'm more than happy to answer them for you.

If you would like to take part, please complete the attached consent form. The consent forms will be stored separately from your survey, so your responses will still be private.

If you have decided you don't want to take part, thank you for the time you've taken in thinking about it.

Researcher contact details:

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This investigation was granted ethical approval by the University of Strathclyde ethics committee.

If you have any questions/concerns, during or after the investigation, or wish to contact an independent person to whom any questions may be directed or from whom further information may be sought, please contact:

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Appendix L:

Study 2 Participant Consent Form

School of Psychological Sciences and Health

Social norms of health behaviours in adolescents

Pupil consent

- I have read and understood the information sheet for the above project and all my questions have been answered.
- I understand that it is up to me to decide if I want to take part and that I can stop at any time, without giving a reason and without any consequences.
- I understand that I can have my responses removed from the study at any time.
- I understand that any information I give will be kept private and no one will know what responses I gave.
- I consent to taking part in the project.

I, _____(print name) hereby consent to taking part in the above project.	
Signature: _____	Date: _____
I am 16 years or over (please delete as applicable): YES / NO	

Appendix M:

Study 2 Post-participation Advice and Support Sheet

School of Psychological Sciences and Health

Social norms of health behaviours in adolescents

Thank you for taking part in this project. If you feel you need to talk about any of the issues that you were asked about in the survey, it might help to talk to a parent or someone you trust within your school (e.g. a teacher or the school nurse/ counselling service). Alternatively, you can find advice or support through the following:

- **Childline**
  Childline is a free helpline for children and young people in the UK who might be feeling worried, scared, stressed or just want to talk to someone. They offer information and support whenever you need them.
  Website: www.childline.org.uk, Phone: 0800 11 11

- **Samaritans**
  Samaritans is available 24 hours a day to provide confidential emotional support for people who are experiencing feelings of distress, despair or suicidal thoughts.
  Website: www.samaritans.org.uk, Phone: 08457 90 90 90

- **Breathing Space**
  Breathing Space is a free, confidential phone and web based service for people in Scotland experiencing low mood, depression or anxiety.
  Website: www.breathingspacescotland.co.uk, Phone: 0800 83 85 87

- **Young Minds**
  Young Minds is a national charity committed to improving the emotional well-being and mental health of children and young people.
  Website: www.youngminds.org.uk

- **NHS 24**

  NHS 24 provides comprehensive up-to-date health information and self-care advice for people in Scotland.

  Website: http://www.nhs24.com/, Phone: 08454 24 24 24

- **Young Scot (health)**

  Young Scot provides information for young people on a range of issues, with a section of their website specifically designed to help you look after yourself and those around you.

  Website: http://www.youngscot.org/info/health-relationships

  Phone: 0800 801 0338

Appendix N:

Study 2 Survey

The Social Norms of Health Behaviours

University of Strathclyde

School of Psychological Sciences and Health

Some details about you, before we begin...

What sex are you? (Please tick)

- ❍ Male
- ❍ Female

How old are you? (Please write your age; e.g. 12 years and 10 months, 14 years and 3 months)

_____years and _____months

Who do you live with? (Please write the relationship to you, of all the people at home; e.g. biological parents, grandparents, foster parents, brothers, sisters)

_____

_____

_____

We may need to be able to find your survey in the future, from amongst all of the other surveys (e.g. if you decide you don't want your responses included in the project anymore). However, we want to keep your responses private and we don't want to use your name, so we would like you to create a personal code by answering the questions below.

Please remember that your responses will be kept completely private.

Please write the day of the month on which you were born (e.g. 25th):

_____

Please write the first letter of your mother's first name (e.g. E):

_____

Please write the last two letters of your home postcode (e.g. QE):

_____

Please write the last two digits of your home phone number (e.g. 82):

_____

The Survey

For the following questions, please tick the answer that most closely represents what you think/ feel, or write your answer where indicated.
If there doesn't seem to be an answer that fits your point of view exactly, please just choose the closest.

Please note:

Some of the questions ask about how often you or people you know engage in certain behaviours. Please answer these with regard to both current behaviour and behaviour in the past (e.g. if you used to do something but don't anymore, we're still interested).

The "not applicable" option should only be chosen if a question doesn't apply to you (for example, if it asks about your siblings and you don't have any siblings).

Do you ever drink alcohol? (Please tick the option closest to your situation)

- ❍ Never
- ❍ I have done occasionally in the past, but not anymore
- ❍ I have done regularly in the past, but not anymore
- ❍ I do so occasionally
- ❍ I do so regularly/ often

Do you ever smoke tobacco? (Please tick the option closest to your situation)

- ❍ Never
- ❍ I have done occasionally in the past, but not anymore
- ❍ I have done regularly in the past, but not anymore
- ❍ I do so occasionally
- ❍ I do so regularly/ often

Do you ever use drugs (e.g. marijuana, cocaine, LSD, ecstasy, amphetamines, heroin etc.)? (Please tick the option closest to your situation)

- ❍ Never
- ❍ I have done occasionally in the past, but not anymore
- ❍ I have done regularly in the past, but not anymore
- ❍ I do so occasionally
- ❍ I do so regularly/ often

Do you ever think about harming yourself (for example, deliberately taking an overdose, e.g., pills or other medication, or trying to harm yourself in some other way, such as cutting yourself)? (Please tick the option closest to your situation)

- ❍ Never
- ❍ I have done occasionally in the past, but not anymore
- ❍ I have done regularly in the past, but not anymore
- ❍ I do so occasionally
- ❍ I do so regularly/ often

Do you ever harm yourself (for example, deliberately taking an overdose, e.g., pills or other medication, or trying to harm yourself in some other way, such as cutting yourself)? (Please tick the option closest to your situation)

- ❍ Never
- ❍ I have done occasionally in the past, but not anymore
- ❍ I have done regularly in the past, but not anymore
- ❍ I do so occasionally
- ❍ I do so regularly/ often

Do you ever think about ending your life (i.e. deliberately dying by suicide)? (Please tick the option closest to your situation)

- ❍ Never
- ❍ I have done occasionally in the past, but not anymore
- ❍ I have done regularly in the past, but not anymore
- ❍ I do so occasionally
- ❍ I do so regularly/ often

Do you ever make an attempt to end your life (i.e. deliberately attempt to die by suicide)? (Please tick the option closest to your situation)

- ❍ Never
- ❍ I have done occasionally in the past, but not anymore
- ❍ I have done regularly in the past, but not anymore
- ❍ I do so occasionally
- ❍ I do so regularly/ often

Do you ever binge eat or deliberately starve yourself? (Please tick the option closest to your situation)

- ❍ Never
- ❍ I have done occasionally in the past, but not anymore
- ❍ I have done regularly in the past, but not anymore
- ❍ I do so occasionally
- ❍ I do so regularly/ often

Do you exercise? (Please tick the option closest to your situation)

- ❍ Never
- ❍ I have done occasionally in the past, but not anymore
- ❍ I have done regularly in the past, but not anymore
- ❍ I do so occasionally
- ❍ I do so regularly/ often

Do you wear a seatbelt when you're in a car? (Please tick the option closest to your situation)

- ❍ Never
- ❍ I have done occasionally in the past, but not anymore
- ❍ I have done regularly in the past, but not anymore
- ❍ I do so occasionally
- ❍ I do so regularly/ often

Do you seek help or support from others when you're really upset of worried about something? (Please tick the option closest to your situation)

- ❍ Never
- ❍ I have done occasionally in the past, but not anymore
- ❍ I have done regularly in the past, but not anymore
- ❍ I do so occasionally
- ❍ I do so regularly/ often

Do you think the following people ever drink alcohol? (Please tick the option closest to what you think)

	Never	Have done occasionally in the past, but not anymore	Have done regularly in the past, but not anymore	Do so occasionally	Do so regularly/ often	Not applicable
Your close friends	❍	❍	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍	❍	❍
Your parents/ guardians	❍	❍	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍	❍	❍
High-school pupils the same age and sex as you	❍	❍	❍	❍	❍	❍
Pupils at your high-school	❍	❍	❍	❍	❍	❍
High-school pupils in general	❍	❍	❍	❍	❍	❍
People in general	❍	❍	❍	❍	❍	❍

Do you think the following people ever smoke tobacco? (Please tick the option closest to what you think)

	Never	Have done occasionally in the past, but not anymore	Have done regularly in the past, but not anymore	Do so occasionally	Do so regularly/ often	Not applicable
Your close friends	❍	❍	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍	❍	❍
Your parents/ guardians	❍	❍	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍	❍	❍
High-school pupils the same age and sex as you	❍	❍	❍	❍	❍	❍
Pupils at your high-school	❍	❍	❍	❍	❍	❍
High-school pupils in general	❍	❍	❍	❍	❍	❍
People in general	❍	❍	❍	❍	❍	❍

Do you think the following people ever use drugs (e.g. marijuana, cocaine, LSD, ecstasy, amphetamines, heroin etc.)? (Please tick the option closest to what you think)

	Never	Have done occasionally in the past, but not anymore	Have done regularly in the past, but not anymore	Do so occasionally	Do so regularly/ often	Not applicable
Your close friends	❍	❍	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍	❍	❍
Your parents/ guardians	❍	❍	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍	❍	❍
High-school pupils the same age and sex as you	❍	❍	❍	❍	❍	❍
Pupils at your high-school	❍	❍	❍	❍	❍	❍
High-school pupils in general	❍	❍	❍	❍	❍	❍
People in general	❍	❍	❍	❍	❍	❍

Do you think the following people ever think about harming themselves (for example, deliberately taking an overdose, e.g., pills or other medication, or trying to harm themselves in some other way, such as cutting themselves)? (Please tick the option closest to what you think)

	Never	Have done occasionally in the past, but not anymore	Have done regularly in the past, but not anymore	Do so occasionally	Do so regularly/ often	Not applicable
Your close friends	❍	❍	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍	❍	❍
Your parents/ guardians	❍	❍	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍	❍	❍
High-school pupils the same age and sex as you	❍	❍	❍	❍	❍	❍
Pupils at your high-school	❍	❍	❍	❍	❍	❍
High-school pupils in general	❍	❍	❍	❍	❍	❍
People in general	❍	❍	❍	❍	❍	❍

Do you think the following people ever harm themselves (for example, deliberately taking an overdose, e.g., pills or other medication, or trying to harm themselves in some other way, such as cutting themselves)? (Please tick the option closest to what you think)

	Never	Have done occasionally in the past, but not anymore	Have done regularly in the past, but not anymore	Do so occasionally	Do so regularly/ often	Not applicable
Your close friends	❍	❍	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍	❍	❍
Your parents/ guardians	❍	❍	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍	❍	❍
High-school pupils the same age and sex as you	❍	❍	❍	❍	❍	❍
Pupils at your high-school	❍	❍	❍	❍	❍	❍
High-school pupils in general	❍	❍	❍	❍	❍	❍
People in general	❍	❍	❍	❍	❍	❍

Do you think the following people ever think about ending their lives (i.e. dying by suicide)?

(Please tick the option closest to what you think)

	Never	Have done occasionally in the past, but not anymore	Have done regularly in the past, but not anymore	Do so occasionally	Do so regularly/ often	Not applicable
Your close friends	❍	❍	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍	❍	❍
Your parents/ guardians	❍	❍	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍	❍	❍
High-school pupils the same age and sex as you	❍	❍	❍	❍	❍	❍
Pupils at your high-school	❍	❍	❍	❍	❍	❍
High-school pupils in general	❍	❍	❍	❍	❍	❍
People in general	❍	❍	❍	❍	❍	❍

Do you think the following people ever attempt to end their lives (i.e. attempt to die by suicide)? (Please tick the option closest to what you think)

	Never	Have done occasionally in the past, but not anymore	Have done regularly in the past, but not anymore	Do so occasionally	Do so regularly/ often	Not applicable
Your close friends	❍	❍	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍	❍	❍
Your parents/ guardians	❍	❍	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍	❍	❍
High-school pupils the same age and sex as you	❍	❍	❍	❍	❍	❍
Pupils at your high-school	❍	❍	❍	❍	❍	❍
High-school pupils in general	❍	❍	❍	❍	❍	❍
People in general	❍	❍	❍	❍	❍	❍

How likely do you think it is that members of the following groups of people will end their lives (i.e. die by suicide)? (Please tick the option closest to what you think)

	Extremely unlikely	Unlikely	Likely	Extremely likely	Not applicable
Your close friends	❍	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍	❍
Your parents/ guardians	❍	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍	❍

Do you think members of the following groups of people ever end their lives (i.e. die by suicide)? (Please tick the option closest to what you think)

	Never	Occasionally	Regularly/ often	Not applicable
High-school pupils the same age and sex as you	❍	❍	❍	❍
Pupils at your high-school	❍	❍	❍	❍
High-school pupils in general	❍	❍	❍	❍
People in general	❍	❍	❍	❍

Do you think the following people ever binge eat or deliberately starve themselves? (Please tick the option closest to what you think)

	Never	Have done occasionally in the past, but not anymore	Have done regularly in the past, but not anymore	Do so occasionally	Do so regularly/ often	Not applicable
Your close friends	❍	❍	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍	❍	❍
Your parents/ guardians	❍	❍	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍	❍	❍
High-school pupils the same age and sex as you	❍	❍	❍	❍	❍	❍
Pupils at your high-school	❍	❍	❍	❍	❍	❍
High-school pupils in general	❍	❍	❍	❍	❍	❍
People in general	❍	❍	❍	❍	❍	❍

Do you think the following people exercise? (Please tick the option closest to what you think)

	Never	Have done occasionally in the past, but not anymore	Have done regularly in the past, but not anymore	Do so occasionally	Do so regularly/ often	Not applicable
Your close friends	❍	❍	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍	❍	❍
Your parents/ guardians	❍	❍	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍	❍	❍
High-school pupils the same age and sex as you	❍	❍	❍	❍	❍	❍
Pupils at your high-school	❍	❍	❍	❍	❍	❍
High-school pupils in general	❍	❍	❍	❍	❍	❍
People in general	❍	❍	❍	❍	❍	❍

Do you think the following wear seatbelts when they're in a car? (Please tick the option closest to what you think)

	Never	Have done occasionally in the past, but not anymore	Have done regularly in the past, but not anymore	Do so occasionally	Do so regularly/ often	Not applicable
Your close friends	❍	❍	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍	❍	❍
Your parents/ guardians	❍	❍	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍	❍	❍
High-school pupils the same age and sex as you	❍	❍	❍	❍	❍	❍
Pupils at your high-school	❍	❍	❍	❍	❍	❍
High-school pupils in general	❍	❍	❍	❍	❍	❍
People in general	❍	❍	❍	❍	❍	❍

Do you think the following people seek help or support from others when they're really upset or worried about something? (Please tick the option closest to what you think)

	Never	Have done occasionally in the past, but not anymore	Have done regularly in the past, but not anymore	Do so occasionally	Do so regularly/ often	Not applicable
Your close friends	❍	❍	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍	❍	❍
Your parents/ guardians	❍	❍	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍	❍	❍
High-school pupils the same age and sex as you	❍	❍	❍	❍	❍	❍
Pupils at your high-school	❍	❍	❍	❍	❍	❍
High-school pupils in general	❍	❍	❍	❍	❍	❍
People in general	❍	❍	❍	❍	❍	❍

Which statement about drinking alcohol do you feel best represents your own attitude? (Please tick the option closest to how you feel)

- ❍ It is completely wrong for someone to drink alcohol
- ❍ There are certain circumstances under which I can understand why someone might drink alcohol
- ❍ It is completely OK for someone to drink alcohol

Which statement about smoking tobacco do you feel best represents your own attitude? (Please tick the option closest to how you feel)

- ❍ It is completely wrong for someone to smoke tobacco
- ❍ There are certain circumstances under which I can understand why someone might smoke tobacco
- ❍ It is completely OK for someone to smoke tobacco

Which statement about using drugs (e.g. marijuana, cocaine, LSD, ecstasy, amphetamines, heroin etc.) do you feel best represents your own attitude? (Please tick the option closest to how you feel)

- ❍ It is completely wrong for someone to take drugs
- ❍ There are certain circumstances under which I can understand why someone might take drugs
- ❍ It is completely OK for someone to take drugs

Which statement about harming yourself (for example, deliberately taking an overdose, e.g., pills or other medication, or trying to harm yourself in some other way, such as cutting yourself) do you feel best represents your own attitude? (Please tick the option closest to how you feel)

- ❍ It is completely wrong for someone to harm themselves
- ❍ There are certain circumstances under which I can understand why someone might harm themselves
- ❍ It is completely OK for someone to harm themselves

Which statement about attempting to end your life (i.e. deliberately attempting to die by suicide) do you feel best represents your own attitude? (Please tick the option closest to how you feel)

- ❍ It is completely wrong for someone to attempt to end their life
- ❍ There are certain circumstances under which I can understand why someone might attempt to end their life
- ❍ It is completely OK for someone to attempt to end their life

Which statement about binge eating or deliberately starving yourself do you feel best represents your own attitude? (Please tick the option closest to how you feel)

- ❍ It is completely wrong for someone to binge eat or starve themselves
- ❍ There are certain circumstances under which I can understand why someone might binge eat or starve themselves
- ❍ It is completely OK for someone to binge eat or starve themselves

Which statement about exercising do you feel best represents your own attitude? (Please tick the option closest to how you feel)

- ❍ It is completely wrong for someone not to exercise
- ❍ There are certain circumstances under which I can understand why someone might not exercise
- ❍ It is completely OK for someone not to exercise

Which statement about wearing a seatbelt when you're in a car, do you feel best represents your own attitude? (Please tick the option closest to how you feel)

- ❍ It is completely wrong for someone not to wear a seatbelt
- ❍ There are certain circumstances under which I can understand why someone might not wear a seatbelt
- ❍ It is completely OK for someone not to wear a seatbelt

Which statement about seeking help or support from others when you're really upset or worried about something, do you feel best represents your own attitude? (Please tick the option closest to how you feel)

- ❍ It is completely wrong for someone not to seek advice or support
- ❍ There are certain circumstances under which I can understand why someone might not seek advice or support
- ❍ It is completely OK for someone not to seek advice or support

Which statement about drinking alcohol do you think best represents the attitudes of the following people? (Please tick the option closest to what you think)

	It is completely wrong for someone to drink alcohol	There are certain circumstances under which they can understand why someone might drink alcohol	It is completely OK for someone to drink alcohol	Not applicable
Your close friends	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍
Your parents/ guardians	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍
High-school pupils the same age and sex as you	❍	❍	❍	❍
Pupils at your high-school	❍	❍	❍	❍
High-school pupils in general	❍	❍	❍	❍
People in general	❍	❍	❍	❍

Which statement about smoking tobacco do you think best represents the attitudes of the following people? (Please tick the option closest to what you think)

	It is completely wrong for someone to smoke tobacco	There are certain circumstances under which they can understand why someone might smoke tobacco	It is completely OK for someone to smoke tobacco	Not applicable
Your close friends	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍
Your parents/ guardians	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍
High-school pupils the same age and sex as you	❍	❍	❍	❍
Pupils at your high-school	❍	❍	❍	❍
High-school pupils in general	❍	❍	❍	❍
People in general	❍	❍	❍	❍

Which statement about using drugs (e.g. marijuana, cocaine, LSD, ecstasy, amphetamines, heroin etc.) do you think best represents the attitudes of the following people? (Please tick the option closest to what you think)

	It is completely wrong for someone to take drugs	There are certain circumstances under which they can understand why someone might take drugs	It is completely OK for someone to take drugs	Not applicable
Your close friends	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍
Your parents/ guardians	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍
High-school pupils the same age and sex as you	❍	❍	❍	❍
Pupils at your high-school	❍	❍	❍	❍
High-school pupils in general	❍	❍	❍	❍
People in general	❍	❍	❍	❍

Which statement about harming oneself (for example, deliberately taking an overdose, e.g., pills or other medication, or trying to harm themselves in some other way, such as cutting themselves) do you think best represents the attitudes of the following people? (Please tick the option closest to what you think)

	It is completely wrong for someone to harm themselves	There are certain circumstances under which they can understand why someone might harm themselves	It is completely OK for someone to harm themselves	Not applicable
Your close friends	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍
Your parents/ guardians	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍
High-school pupils the same age and sex as you	❍	❍	❍	❍
Pupils at your high-school	❍	❍	❍	❍
High-school pupils in general	❍	❍	❍	❍
People in general	❍	❍	❍	❍

Which statement about attempting to end one's life (i.e. deliberately attempting to die by suicide) do you think best represents the attitudes of the following people? (Please tick the option closest to what you think)

	It is completely wrong for someone to attempt to end their life	There are certain circumstances under which they can understand why someone might attempt to end their life	It is completely OK for someone to attempt to end their life	Not applicable
Your close friends	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍
Your parents/ guardians	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍
High-school pupils the same age and sex as you	❍	❍	❍	❍
Pupils at your high-school	❍	❍	❍	❍
High-school pupils in general	❍	❍	❍	❍
People in general	❍	❍	❍	❍

Which statement about binge eating or deliberately starving oneself do you think best represents the attitudes of the following people? (Please tick the option closest to what you think)

	It is completely wrong for someone to binge eat or starve themselves	There are certain circumstances under which they can understand why someone might binge eat or starve themselves	It is completely OK for someone to binge eat or starve themselves	Not applicable
Your close friends	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍
Your parents/ guardians	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍
High-school pupils the same age and sex as you	❍	❍	❍	❍
Pupils at your high-school	❍	❍	❍	❍
High-school pupils in general	❍	❍	❍	❍
People in general	❍	❍	❍	❍

Which statement about exercising do you think best represents the attitudes of the following people? (Please tick the option closest to what you think)

	It is completely wrong for someone not to exercise	There are certain circumstances under which they can understand why someone might not exercise	It is completely OK for someone not to exercise	Not applicable
Your close friends	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍
Your parents/ guardians	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍
High-school pupils the same age and sex as you	❍	❍	❍	❍
Pupils at your high-school	❍	❍	❍	❍
High-school pupils in general	❍	❍	❍	❍
People in general	❍	❍	❍	❍

Which statement about wearing a seatbelt when one is in a car do you think best represents the attitudes of the following people? (Please tick the option closest to what you think)

	It is completely wrong for someone not to wear a seatbelt	There are certain circumstances under which they can understand why someone might not wear a seatbelt	It is completely OK for someone not to wear a seatbelt	Not applicable
Your close friends	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍
Your parents/ guardians	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍
High-school pupils the same age and sex as you	❍	❍	❍	❍
Pupils at your high-school	❍	❍	❍	❍
High-school pupils in general	❍	❍	❍	❍
People in general	❍	❍	❍	❍

Which statement about seeking help or support from others when one is really upset or worried about something, do you think best represents the attitudes of the following people? (Please tick the option closest to what you think)

	It is completely wrong for someone not to seek advice or support	There are certain circumstances under which they can understand why someone might not seek advice or support	It is completely OK for someone not to seek advice or support	Not applicable
Your close friends	❍	❍	❍	❍
Your siblings (if applicable)	❍	❍	❍	❍
Your parents/ guardians	❍	❍	❍	❍
Your wider/ extended family	❍	❍	❍	❍
High-school pupils the same age and sex as you	❍	❍	❍	❍
Pupils at your high-school	❍	❍	❍	❍
High-school pupils in general	❍	❍	❍	❍
People in general	❍	❍	❍	❍

If you have never drunk alcohol, please ignore this section and go on to the next one.

The first time you drank alcohol, did you KNOW (for certain) that other people you knew had also done so? (Please tick the option closest to your situation)

Yes _____ No _____

Who? (Please write the relationship to you of as many people as applicable; e.g. close friend, brother, other pupils at your school)

_____ _____ _____

_____ _____ _____

Did you SUSPECT (without knowing for certain) that other people you knew had also done so? (Please tick the option closest to your situation)

Yes _____ No _____

Who? (Please write the relationship to you of as many people as applicable; e.g. close friend, brother, other pupils at your school)

_____ _____ _____

_____ _____ _____

Do you think this had any effect on you drinking alcohol? (Please tick the option closest to your situation)

Yes _____ No _____

If you have never smoked tobacco, please ignore this section and go on to the next one.

The first time you smoked tobacco, did you KNOW (for certain) that other people you knew had also done so? (Please tick the option closest to your situation)

Yes _____ No _____

Who? (Please write the relationship to you of as many people as applicable; e.g. close friend, brother, other pupils at your school)

_____ _____ _____

_____ _____ _____

Did you SUSPECT (without knowing for certain) that other people you knew had also done so? (Please tick the option closest to your situation)

Yes _____ No _____

Who? (Please write the relationship to you of as many people as applicable; e.g. close friend, brother, other pupils at your school)

_____ _____ _____

_____ _____ _____

Do you think this had any effect on you smoking tobacco? (Please tick the option closest to your situation)

Yes _____ No _____

If you have never used drugs, please ignore this section and go on to the next one.

The first time you used drugs, did you KNOW (for certain) that other people you knew had also done so? (Please tick the option closest to your situation)

Yes _____ No _____

Who? (Please write the relationship to you of as many people as applicable; e.g. close friend, brother, other pupils at your school)

_____ _____ _____

_____ _____ _____

Did you SUSPECT (without knowing for certain) that other people you knew had also done so? (Please tick the option closest to your situation)

Yes _____ No _____

Who? (Please write the relationship to you of as many people as applicable; e.g. close friend, brother, other pupils at your school)

_____ _____ _____

_____ _____ _____

Do you think this had any effect on you using drugs? (Please tick the option closest to your situation)

Yes _____ No _____

If you have never harmed yourself, please ignore this section and go on to the next one.

The first time you harmed yourself, did you KNOW (for certain) that other people you knew had also done so? (Please tick the option closest to your situation)

Yes _____ No _____

Who? (Please write the relationship to you of as many people as applicable; e.g. close friend, brother, other pupils at your school)

_____ _____ _____

_____ _____ _____

Did you SUSPECT (without knowing for certain) that other people you knew had also done so? (Please tick the option closest to your situation)

Yes _____ No _____

Who? (Please write the relationship to you of as many people as applicable; e.g. close friend, brother, other pupils at your school)

_____ _____ _____

_____ _____ _____

Do you think this had any effect on you harming yourself? (Please tick the option closest to your situation)

Yes _____ No _____

If you have never attempted to end your life, please ignore this section and go on to the next one.

The first time you attempted to end your life, did you KNOW (for certain) that other people you knew had also done so? (Please tick the option closest to your situation)

Yes _____ No _____

Who? (Please write the relationship to you of as many people as applicable; e.g. close friend, brother, other pupils at your school)

_____ _____ _____

_____ _____ _____

Did you SUSPECT (without knowing for certain) that other people you knew had also done so? (Please tick the option closest to your situation)

Yes _____ No _____

Who? (Please write the relationship to you of as many people as applicable; e.g. close friend, brother, other pupils at your school)

_____ _____ _____

_____ _____ _____

Do you think this had any effect on you attempting to end your life? (Please tick the option closest to your situation)

Yes _____ No _____

If you have never binge eaten or deliberately starved yourself, please ignore this section and go on to the next one.

The first time you binge ate or deliberately starved yourself, did you KNOW (for certain) that other people you knew had also done so? (Please tick the option closest to your situation)

Yes _____ No _____

Who? (Please write the relationship to you of as many people as applicable; e.g. close friend, brother, other pupils at your school)

_____ _____ _____

_____ _____ _____

Did you SUSPECT (without knowing for certain) that other people you knew had also done so? (Please tick the option closest to your situation)

Yes _____ No _____

Who? (Please write the relationship to you of as many people as applicable; e.g. close friend, brother, other pupils at your school)

_____ _____ _____

_____ _____ _____

Do you think this had any effect on you binge eating or deliberately starving yourself? (Please tick the option closest to your situation)

Yes _____ No _____

If you've usually or always exercised, please ignore this section and go on to the next one.

Do you KNOW (for certain) that other people you know do little or no exercise? (Please tick the option closest to your situation)

Yes _____ No _____

Who? (Please write the relationship to you of as many people as applicable; e.g. close friend, brother, other pupils at your school)

_____ _____ _____

_____ _____ _____

Do you SUSPECT (without knowing for certain) that other people you know do little or no exercise? (Please tick the option closest to your situation)

Yes _____ No _____

Who? (Please write the relationship to you of as many people as applicable; e.g. close friend, brother, other pupils at your school)

_____ _____ _____

_____ _____ _____

Do you think this has any effect on you doing little or no exercise? (Please tick the option closest to your situation)

Yes _____ No _____

If you've usually or always worn a seatbelt when you're in a car, please ignore this section and go on to the next one.

Do you KNOW (for certain) that other people you know don't wear a seatbelt when they're in a car? (Please tick the option closest to your situation)

Yes _____ No _____

Who? (Please write the relationship to you of as many people as applicable; e.g. close friend, brother, other pupils at your school)

_____ _____ _____

_____ _____ _____

Do you SUSPECT (without knowing for certain) that other people you know don't wear a seatbelt when they're in a car? (Please tick the option closest to your situation)

Yes _____ No _____

Who? (Please write the relationship to you of as many people as applicable; e.g. close friend, brother, other pupils at your school)

_____ _____ _____

_____ _____ _____

Do you think this has any effect on you wearing a seatbelt when you're in a car? (Please tick the option closest to your situation)

Yes _____ No _____

If you've usually or always sought help or advice when you've been upset or worried, please ignore this section.

Do you KNOW (for certain) that other people you know don't seek help or advice from others when they're really upset or worried about something? (Please tick the option closest to your situation)

Yes _____ No _____

Who? (Please write the relationship to you of as many people as applicable; e.g. close friend, brother, other pupils at your school)

_____ _____ _____

_____ _____ _____

Do you SUSPECT (without knowing for certain) that other people you know don't seek help or advice from others when they're really upset or worried about something? (Please tick the option closest to your situation)

Yes _____ No _____

Who? (Please write the relationship to you of as many people as applicable; e.g. close friend, brother, other pupils at your school)

_____ _____ _____

_____ _____ _____

Do you think this has any effect on you not seeking help when you're really upset or worried about something? (Please tick the option closest to your situation)

Yes _____ No _____

Thank you!

That's the end of the survey.

Thank you so much for your time.

Appendix O:

Study 3 Participant Information Sheet

School of Psychological Sciences and Health

Undergraduate students' perceptions of suicidal and self-harming behaviour in others

Introduction

This study is being conducted by Jody Quigley; a PhD student at the University of Strathclyde, as part of her doctoral thesis.

What is the purpose of this investigation?

The social norms of a given behaviour are the typical or "normal" rates at which people engage in, or are perceived to engage in, that behaviour. However, for such typically private behaviours, accurate information about the social norms of these behaviours is difficult to obtain. The purpose of this study is to investigate the observed or perceived social norms around suicidal and self-harming behaviours in undergraduate students. We are particularly interested in *how students know* that others engage in these behaviours, or *what makes them believe* that these behaviours are taking place, if they do not know for certain.

Do you have to take part?

No, you do not have to take part. Participating in this study is completely voluntary, and it is up to you to decide if you wish to participate. If you do not wish to take part, or if you decide you would like to withdraw from the study, you are free to do so at any point, without giving a reason and without any detriment to you.

What will you do in the project?

If you decide to take part, you will be invited to either a short one-to-one interview with a researcher, or a small focus group of your peers (allocated semi-randomly), at which you will be asked questions about your observations or perceptions of suicidal or self-harming behaviours in other people. Interviews and focus groups will be held in a room at the University of Strathclyde, and they will be audio-recorded, but your name or any other identifiable information about you will not be used in any transcriptions or research reports. Focus group members are asked to kindly respect the privacy of their fellow participants,

and treat anything that is discussed as highly confidential. You will not be asked to give any detailed or personal information and you will not have to answer any question with which you feel uncomfortable. Following the interview or focus group, you will be asked to complete a short tick-box questionnaire about the same behaviours, which no one else will see (apart from the researcher). The whole study should take approximately 30 minutes in total.

As a thank you for your time and effort in participating, you will be offered a £5 gift voucher. If you are a 1st, 2nd or 3rd year psychology undergraduate student, you will have the option to receive 1 course credit instead of the gift voucher.

Why have you been invited to take part?

You have been invited to take part because you are an undergraduate student and you are over the age of 18.

What are the potential risks to you in taking part?

It is possible that you may experience some psychological discomfort in answering some of the questions. If you think that you may find it distressing to think about suicidal or self-harming behaviours, then we advise that you do not participate in this study. If you decide to participate and become upset, you are free to withdraw at any point, without explanation. Contact details for sources of advice and support, should you feel you need it, will be provided.

What happens to the information in the project?

Audio-recorded data will be transcribed and stored electronically. Paper questionnaires will be stored in a locked cabinet. All information gathered during this study will be kept entirely confidential, and participants of the focus groups will be asked to respect the privacy of their fellow participants, and not to discuss anything they have heard outside of the group. The transcription of your comments and your responses to the tick-box questionnaire will be assigned a participant number so all of your data will be anonymous. No identifying information will be included in any publications or presentations of results. Data will be stored on a secure, password-protected computer, and only the researchers named on this sheet will have access to your data. Data will be kept for 5 years after publication and then destroyed, securely.

The University of Strathclyde is registered with the Information Commissioner's Office who implements the Data Protection Act 1998. All personal data on participants will be processed in accordance with the provisions of the Data Protection Act 1998.

What happens next?

Should you have any questions or concerns before you decide whether to participate, the researchers (contact details below) would be more than happy to address them with you.

If you are happy to be involved in the study, you will be invited to sign a consent form, and to complete some simple demographic details (e.g. age, year of study) for group comparison purposes, before completing the survey.

Once the study is complete, results will be written up both for use as part of a doctoral thesis, and for publication in a peer-reviewed journal. As such, the full report on the study will be available publicly, but no information which identifies you personally will be used in any report.

If you have decided you do not want to participate, thank you for the time you have taken in considering it.

Researcher contact details:

Jody Quigley
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Graham Hills Building
40 George Street
Glasgow G1 1QE
Email: jody.quigley@strath.ac.uk
Phone: 0141 548 2007

Chief Investigator contact details:

Dr Susan Rasmussen
School of Psychological Science and Health
University of Strathclyde
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40 George Street

Glasgow G1 1QE
Email: s.a.rasmussen@strath.ac.uk
Phone: 0141 548 2575

This investigation was granted ethical approval by the University of Strathclyde ethics committee.

If you have any questions/concerns, during or after the investigation, or wish to contact an independent person to whom any questions may be directed or from whom further information may be sought, please contact:

Secretary to the University Ethics Committee
Research & Knowledge Exchange Services
University of Strathclyde
Graham Hills Building
50 George Street
GlasgowG1 1QE
Email: ethics@strath.ac.uk
Phone: 0141 548 3707

Appendix P:

Study 3 Participant Consent Form

School of Psychological Sciences and Health

Undergraduate students' perceptions of suicidal and self-harming behaviour in others

- I confirm that I have read and understood the information sheet for the above project and the researcher has answered any queries to my satisfaction.
- I understand that my participation is voluntary and that I am free to withdraw from the project at any time, without having to give a reason and without any consequences.
- I understand that my interview or focus group will be audio-recorded, but that transcriptions of the recording will be fully anonymised.
- If allocated to interview, I understand that any information recorded will remain confidential and transcriptions of my responses and the short questionnaires will be entirely anonymous. No information that identifies me will be made publicly available.
- If allocated to a focus group, I understand that the information discussed during the session is highly confidential and should not be shared outside of the group. Transcriptions of my responses and the short questionnaires will be entirely anonymous. No information that identifies me will be made publicly available.
- I consent to being a participant in the project.

I, (print name):	Hereby agree to take part in the above project.
Signature of Participant:	Date:

Appendix Q:

Study 3 Participant Debrief

School of Psychological Sciences and Health

Undergraduate students' perceptions of suicidal and self-harming behaviour in others

Thank you for taking part in this study.

The purpose of this project is to investigate undergraduates' knowledge and perceptions of other people's engagement in suicidal or self-harming behaviours (including self-harm, suicidal ideation, suicide attempt, dying by suicide) and to explore the beliefs behind those perceptions. Research into the social norms of other damaging health behaviours (e.g. drug and alcohol use) has found that individuals tend to overestimate others' engagement in those behaviours, and that this may be related to an increase in their own engagement in those behaviours. Further, individuals also tend to overestimate others' positive views or approval of damaging behaviours, which again, may increase their own engagement in those behaviours. We hope to explore the beliefs behind undergraduate perceptions of others' suicidal and self-harming behaviours, with the ultimate aim of eventually developing an intervention to reduce misperceptions, and decrease engagement in these damaging behaviours.

Social norms research to date typically employs quantitative survey methods, and looks at *what* is going on in terms of individuals' perceptions. This study aims to look at *why* individuals hold the perceptions that they do, using qualitative methods.

What happens to my results?

The audio-recording of your responses will be completely confidential, the transcription of your responses and your short survey will be kept entirely anonymous, and no identifying data will be included in any publications or presentations of results. All data will be kept for a period of 5 years after publication of the results, and will be stored on a password-protected computer. Once the study is complete, results will be written up both for use as part of a doctoral thesis, and for publication in a peer-reviewed journal. As such, the full report on the study will be available publically (with participants' anonymity maintained).

If you have questions regarding this study or any related issues, or if you would like a copy of the results, please contact Jody Quigley. Similarly, if you would like to have your data removed from analyses for any reason, please contact Jody Quigley.

If you have any other concerns or queries that you would like to raise independently of the researchers, please feel free to contact the University Ethics Committee.

Researcher contact details:

Jody Quigley
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Chief investigator details:

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Phone: 0141 548 2575

University Ethics Committee details:

Secretary to the University Ethics Committee
Research & Knowledge Exchange Services
University of Strathclyde
Graham Hills Building
50 George Street
Glasgow G1 1QE
Email: ethics@strath.ac.uk

Phone: 0141 548 3707

Should you feel you need to discuss any of the issues touched upon in this study, or you would like some advice or support, you may find the following resources helpful:

- University of Strathclyde Student Counselling Service
  A confidential service for undergraduate and postgraduate students at the University of Strathclyde, available at any time during your university career.
  Website: http://www.strath.ac.uk/studentcounselling/
  Phone: 0141 548 3510

- Samaritans
  Available 24 hours a day to provide confidential emotional support for people who are experiencing feelings of distress, despair or suicidal thoughts.
  Website: www.samaritans.org.uk, Phone: 08457 90 90 90 (24 hours)

- Lifelink
  Provide a number of services and centres in various locations throughout the Glasgow area, helping to improve the emotional, mental and physical wellbeing of people of all ages.
  Website: http://www.lifelink.org.uk/, Phone: 0141 552 4434

- Breathing Space
  A free, confidential phone and web based service for people in Scotland experiencing low mood, depression or anxiety.
  Website: http://www.breathingspacescotland.co.uk, Phone: 0800 83 85 87

- Penumbra
  A Scottish voluntary organisation who work to promote mental health and wellbeing for all, prevent mental ill health for people who are 'at risk' and to support people with mental health problems.
  Website: http://www.penumbra.org.uk/, Phone: 0131 475 2380

Appendix R:

Study 3 Interview Schedule

- Do you know (for certain) anyone who has ever self-harmed/ had thoughts of suicide/ attempted suicide/ died by suicide?
  Prompts:
  - Who (relationship)?
  - How do you know?

- Do you suspect (without knowing for sure) that someone you know might have self-harmed/ had thoughts of suicide/ attempted suicide/ died by suicide?
  Prompts:
  - Who (relationship)?
  - What makes you suspect?

- How common do you think self-harm/ thoughts of suicide/ suicide attempts/ dying by suicide are?
  Prompts:
  - Why do you think that?
  - Who do you think does it?
  - Are there particular groups which are more likely to do it?

- What do you think are the reasons people self-harm/ have thoughts of suicide/ attempt suicide/ die by suicide?
  Prompts:
  - Why that and not something else?
  - What do some people go from thinking about it to action, and some only think about it?
  - Where do they get the idea?
  - What are they aiming to achieve?

- What are your attitudes towards people who self-harm/ have thoughts of suicide/ attempt suicide/ die by suicide?
  Prompts:
  - Why do you feel that way?

- Should we try to help them/ is it their own fault/ what should be done?

- What do you think are most people's attitudes towards people who self-harm/ have thoughts of suicide/ attempt suicide/ die by suicide?
  Prompts:
  - Why do you think that?
  - What do you think are the reasons they feel that way?
  - If applicable: Why do you think your attitude is different to that of most people?

- Do you think people who self-harm/ have thoughts of suicide/ attempt suicide/ die by suicide are influenced by what other people think/do?
  Prompts:
  - If applicable: In what way?
  - Why do you think that?

- Do you think others' attitudes or behaviour around self-harm/ thoughts of suicide/ suicide attempt/ dying by suicide has any influence on your attitudes or behaviour?
  Prompts:
  - If applicable: In what way?
  - Why do you think that?

Appendix S:

Study 3 Short Questionnaire

Anon. code: _____

Do you ever: (Please tick appropriate box)

	No, never	I have done occasionally in the past, but not recently	I have done regularly/often in the past but not recently	I do so occasionally	I do so regularly/ often
Think about harming yourself?					
Harm yourself?					
Think about ending your life?					
Attempt to end your life?					

Do you know for certain, that anyone you know has ever:
(Please write their relationship to you, e.g. father, sister, friend, in the appropriate box. List as many as is applicable):

	Have done occasionally in the past, but not recently	Have done regularly/often in the past but not recently	Do so occasionally	Do so regularly/often
Thought about harming themselves?				
Harmed themselves?				
Thought about ending their life?				
Attempted to end their life?				
Ended their life?				

Do you suspect, without knowing for certain, that anyone you know has ever:
(Please write their relationship to you, e.g. father, sister, friend, in the appropriate box. List as many as is applicable):

	Have done occasionally in the past, but not recently	Have done regularly/often in the past but not recently	Do so occasionally	Do so regularly/often
Thought about harming themselves?				
Harmed themselves?				
Thought about ending their life?				
Attempted to end their life?				
Ended their life?				

Appendix T:

Study 3 Reflective Journal

i) Familiarisation with the data

I am already reasonably familiar with the data, having conducted and transcribed all of the interviews myself. However, each transcript was read a further twice before coding began, to ensure that I was completely familiar with all of the data. No reflective notes made at this stage.

ii) Generation of initial codes

The following reflective notes were taken during initial coding:

Participants often change their mind or say they do not know something. Might this be protective? They may be afraid to "get it wrong", say something they do not mean to, or embarrass themselves.

A reasonably substantial proportion of the text is confused or makes little sense. I did not notice this during the interview process.

Participants seem to start to remember additional instances of exposure to SSHB throughout the duration of the interview. Might this have implications for survey-style research where participants only get one opportunity to respond to items and cannot add information later?

There appears to be two types of "attention-seeking" motivations perceived: One with purely negative connotations, waning to be the centre of attention, almost manipulative (distinguished from a cry for help). The other, a cry for help (a cry of pain?) to show people how desperate they are, to try to get the help that they need. It is not always easy to determine from the text which of these is relevant to each participant, but sometimes it is very clear.

Some participants who report personal experience of SSHB (i.e. their own SSHB) seem unable to talk about others' SSHB quite as well. They do not really answer the question but often go off on a tangent, focusing on their own issues. When prompted to come back, they give relatively short answers, before drifting off again to focus on their own SSHB.

It is difficult to get the codes exactly right. There are so many codes that I keep having to change the names slightly to accommodate more general comments, otherwise I will have far too many codes each with one item in it. There have been several amendments to names of codes and what they include, in order to both broaden their scope and keep them accurate.

I sometimes find myself trying to fit things into ill-fitting existing codes rather than make new ones as I already have so many. When I have noticed myself doing this, if existing codes are not appropriate I have created new ones regardless of their number. These can be reduced/ grouped together later.

I think I am at times duplicating codes – it is difficult to keep track of what I have named them as there are so many. This is not a major problem though, as I can merge them later if there are duplicates.

Participants often go off on tangents and away from the question and then forget what the question was. SSHB seems to spark conversation about a lot of semi-related areas, and participants sometimes appear to have their own specific agendas about which they want to talk (e.g., mental health, social justice, consideration of how action affect other people).

There is unfortunately a lot of material that I'm not going to be able to do anything with – waffling, mumbling and not really making much sense.

Participants often sound as though they are trying to say something but want to avoid sounding offensive or "bad". There is at times a lot of hesitation, as though participants are seeking the right words. Additionally, they often explicitly state that they do not mean to sound horrible, or that they know it sounds bad, but…

I am concerned that I am missing information/ not coding text fully/ not coding text in the right places. Once coding is complete, I intend to go through and double check that everything is coded everywhere that it should be, and to check that codes only contain the data that they should.

For some participants, sympathy seems to be reserved for if someone dies, but if they do not die (i.e. if they engage in self-harm or make a non-fatal suicide attempt), it is more likely to

be seen as attention-seeking. For others however, dying is perceived as selfish, whilst those who do not die are considered unwell and in need of help.

INITIAL CODING COMPLETE = 376 codes

By this stage, I was not convinced that I had coded everything in the most appropriate ways, as initial coding was so time-intensive that I was concerned I had become distracted and missed things or coded them incorrectly. In order to refine and double-check the initial coding, all transcripts and codes were revisited (still stage (ii) of thematic analysis). Codes were tidied and stream-lined, with overly-similar codes merged, seemingly meaningless ones removed, and overly-general ones split into more meaningful parts. The following notes were taken during this process:

Some codes only have one item in them but many of these are interesting, so I have kept them in anyway.

Some codes with only one item in them appear relatively meaningless, but I do not want to miss anything so I have kept these in for now. If necessary, they can go into a "miscellaneous" box later.

There are not many entries in the "People told me themselves" code – much more in the "Heard through other people" code. Do people actually knowing for certain this is going on, or are they relying solely on others' accounts?

There is some disagreement regarding whether participants think people who engage in SSHB are influenced by others or whether they think at that point, people are too far past caring what other people are doing, and are only thinking of their current situation. Is this relevant? Why might this be?

A very clear picture is emerging of participants thinking that although others share a lot of their views, they are far more understanding and empathetic than others, and can see things from the SSHB individuals' points of view much better than others can.

"Social influence" might be too big to just be a code – I might need to break it down. It may be that this emerges as a theme later on (and this seems likely), but for now, it should be broken down into different types.

I thought I had a code about everyone thinking about suicide at some point, but I seem to have lost it. Start a new one and merge them if I find it.

FINAL CODING COMPLETE = 239 codes (see Appendix V)
SPLIT INTO 68 MEANINGFUL SUB-GROUPS (see individual thematic network diagrams under each theme in Chapter 7)

iii) Identification of themes

The following notes were taken during this process:

A number of the initial codes fit into several different meaningful groups so there is likely to be a lot of overlap between themes.

Reasons for and characteristics of SSHB may represent an overall "explanation" theme, or reasons for might be separated out further into blame-related and non-blame-related reasons.

Participants often contradict themselves, or take back what they've said or say things like "I don't mean it like that". Is this to appear a certain way, or are they genuinely undecided? Or both? This may be a theme on its own, slightly different to the nature of other themes.

It is difficult when starting out, not to just put codes into themes relating to the questions participants were asked. I think one theme will *have* to relate directly to a question – the responses relating to what causes SSHB. But I think that this will be ok as it provides a background to the more in-depth themes that will emerge.

"Attention-seeking or cry for help" might need to be split in two because each part probably goes into a different theme. However, it is not always clear from extracts which side of this participants endorse. It may be that they have to be kept together, but differences highlighted under respective themes.

Is the difference between self-harm and suicide important? A distinction v's a continuum fits into other themes but I wonder if it needs one of its own, or whether this would be superfluous. It may be too small on its own but would be an interesting concept in terms of the debate around the utility of distinct definitions.

Might need to split "people unable or unwilling to get help" because the two might have different connotations which fit into different themes. Again though, it is not always clear which participant endorses which side, so this would be difficult. Again, specific differences should maybe just be highlighted under respective themes.

"Social influence" might be too big to just be a code – it may be a theme (or sub-theme?) in itself. Explore in more depth.

19 out of the 29 participants stated that they thought SSHB is more common than people think. This seems significant – is it a theme? Explore in more depth.

There are 15 preliminary themes (plus a miscellaneous category). Some are much larger than others and were created specifically as a result of the questions (e.g., causes of/reasons for SSHB), whilst others were generated spontaneously (e.g., blame or judgement). The latter are more interesting, but the former may be able to be worked upon to extract deeper meanings.

iv) Review of themes

The following notes were taken during reviewing of the themes:

"Reasons and causes" and "characteristics" seem to fit together under one "explanation" theme, so I have combined them and tried to break them down into more detailed sub-themes. This may represent one descriptive theme, among other more analytical themes.

Social influence fits well under causes.

Since initial themes were created, it has become much easier to see how themes might actually represent sub-themes of larger themes. Some of the initial 15 have remained and can be broken down further, and others actually represent sub-themes, with overarching themes that I did not at first recognise.

Most of the meaningful sub-groups of codes fit well into sub-themes (with some minor revisions) but the initial codes within those meaningful sub-groups belong in several sub-themes.

A number of sub-themes need rearranging as there is still quite a lot of overlap. I think it is ok that there remains some overlap, but I think it is important to try to make themes and sub-themes as distinctive as is possible, to maximise meaning.

There are 5 final overarching themes, each with a varying number of sub-themes. The remaining overlap between themes is unavoidable and worthy of discussion in the report.

v) Definition and naming of themes

This process was extremely quick and straightforward (perhaps on account of a long time having been spent on coding and identifying and reviewing themes, such that with a few exceptions, names and definitions were clearly apparent by this stage), so no reflective notes were taken at this stage.

FINAL THEMES IDENTIFIED AND NAMED = 5 overall themes, each consisting of several sub-themes, with further meaningful sub-groups of codes within sub-themes (see thematic network diagrams for each themes in Chapter 7).

vi) Production of the report

Aside from rearranging the order in which themes were presented (from that in which they were created), the production of the report was similarly straightforward as stage (v), and no reflective notes were taken at this stage.

Appendix U:

Study 3 List of Codes Generated

A build-up of things
A lot of factors
Acceptance
Aftermath
Age differences in SSHB
Altruistic reasons
Anger
Appearance issues
Asking people questions
Attention-seeking or cry for help
Attitude depends on experience
Attitudes affected by age
Attitudes changing
Avoidance or dismissiveness
Awareness
Behaviour change towards people who SSHB
Behaviour depends on severity of situation
Bullying
Can affect anyone, there's no particular group
Changing attitudes
Clues, signs or warnings
Comparing mental health to physical health
Contradicts self or changes mind
Coping and resilience
Damage limitation
Different others have different views
Discomfort with SSHB
Disliking oneself
Do know somebody
Do not know anybody
Don't associated adults with self-harm
Don't know what might help
Early intervention necessary
Education
Effect on others
Emotional regulation
Everything just gets too much
Experience can affect your attitudes in either direction
Experience makes you feel more strongly about it
Experience or education makes you understand SSHB better
Feeling trapped
Feelings of worthlessness
Financial problems or job loss
Forgotten question
Gender differences in SSHB
Glamorization or glorification
Have suspected people
Having no one
Health issues
Heard about people's SSHB through others
Helping might not be the right thing
High risk groups
Hopelessness
I can imagine or understand what it's like
I don't know why people would do it
I don't think badly of it
I don't understand it
I feel sad or bad for people

I think differently to other people
I try to control my reactions
I used to think it was selfish or attention-seeking
I'd know if people I knew SSHB
Identity and fitting in
If they had the chance again they wouldn't do it
Ignorance without experience or education
I'm influenced by others
I'm not influenced by others
I'm sympathetic towards SSHB
Importance of talking
It continues because of lack of help
It should be talked about more
It's a serious problem or should be treated more seriously
It's not OK to SSHB
It's not talked about
It's not their fault
It's seen or talked about more now
I've always felt that way
I've never been there or know how it feels
Labels
Lack of support
Learnt about it at uni or school
Loneliness or isolation
Loss or grief
Lots of people know people affected by SSHB
Media
Mental health
Methods
More sympathy for self-harm than suicide
More sympathy for suicide than self-harm
My characteristics shape my attitudes
Norms
Not feeling loved or wanted
Nothing to live for
Noticing scars
Other behaviours as SSHB
Others are judgemental
Others are sympathetic towards SSHB
Others are unsympathetic towards SSHB
Others' attitudes may make SSHB worse
Others' attitudes might delay SSHB
Others don't understand or know what to do
Others horrible about SSHB
Others think people who SSHB are weird or crazy
Others think similarly to me
Others think SSHB cowardly
Others think SSHB for attention
Others think SSHB selfish
Others think SSHB stupid
Over-thinking or exaggerating
Overuse of the word depression
Peer pressure
People are influenced by others
People are isolated because of SSHB
People are not influenced by others
People aren't thinking of others
People don't know what help there is
People don't realise suicide is permanent
People don't understand what's happening to them
People encouraging each other
People feel they have to do it
People get attached or caught up in it
People get the idea from others

People have different reasons and situations
People have to help themselves
People hide it
People just don't want to be here
People just want it the pain or suffering to stop
People need a role or purpose
People only want to talk to others who understand
People scared of telling others
People shouldn't be judged
People SSHB because it makes them feel better
People SSHB because life's too difficult
People SSHB because of what they've gone through
People SSHB because other things don't help
People SSHB because they've seen it makes others feel better
People told them about SSHB themselves
People unable or unwilling to get help
People who SSHB are not different or unusual
People who talk about their SSHB are brave
People who you might not expect
People won't SSHB just because others are
Personal SSHB
Personality
Physical pain helps emotional pain
Predisposition
Pressure or stress
Prevention
Problems at home or with relationships
Problems at work or school
Professional help
Protective factors
Providing support
Recovery and things getting better
Regret or guilt
Religion
School related
Seeing SSHB makes it relatable or feasible
Seeing SSHB would make you less likely to do it yourself
Self-esteem
Self-expression
SH doesn't get as much attention as suicide
SH just as serious as suicide
SH less common than suicide
SH more common than suicide
SH not as serious as suicide
SH to avoid suicide
Shame
Shock or fear
Social influence
Social media
Societal factors
Socioeconomic factors
Some people are open about their SSHB
Something changes before people SSHB
Specific details about people they know
SSHB a continuum or spectrum
SSHB as a trend
SSHB as a way out or an escape
SSHB as control
SSHB as desirable

SSHB as giving up
SSHB as impulsive or sudden
SSHB as last option or there's no other solution
SSHB as naturally occuring
SSHB as relief or release
SSHB as self-punishment
SSHB common
SSHB doesn't change anything
SSHB for show
SSHB for the sensation
SSHB is a very personal or private thing
SSHB is cowardly
SSHB is extreme
SSHB is foolish or silly
SSHB is selfish
SSHB isn't cowardly
SSHB isn't for attention
SSHB isn't impulsive
SSHB isn't selfish
SSHB more common than people think
SSHB not common
SSHB not common in people I know
SSHB out of curiosity
SSHB to get a reaction from others
SSHB to punish others
Standing out
Stereotypes
Stigma
Substance use
Suggestions for what might help
Suicide and SH different
Suicide and SH similar
Suicide as final or absolute
Talking about SSHB might put people at risk
There are other options
There is help out there
There should be more help for people
Things must be bad to SSHB
Thinking about suicide is quite normal and not unusual
Thinking or talking about SSHB but not actually doing it
Time can help
Trauma or abuse
Uncertainty
Unexpected
Unhappy with life
Unsympathetic others make me more sympathetic
Upbringing
Want to help or for people to get the help they need
Want to understand
Wanting to die
Weakness
Working with people who SSHB
You can't ask questions after someone's gone
You can't stop people from doing what they want to do
You don't necessarily know what's going on for people
You need to understand the cause to fix it
You recognise things similar to you in other people
Young people are easily influenced