Has Cutting Become Cool?

Normalising, Social Influence

and Socially-Motivated Deliberate Self-Harm

in Adolescent Girls

A research project presented in partial fulfilment
of the requirements for the degree of

Doctor of Clinical Psychology

at Massey University, Albany,
New Zealand

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2013

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May 2013

Abstract

The literature focusing on deliberate self-harm (DSH) has grown exponentially over the last decade. The most commonly understood reasons for DSH are based on distress relief and attenuation of emotional numbness. However, few studies have explored the social aspects of DSH. With the advent of some youth subcultures where DSH appears to be routine, the possibility arises that DSH may have become a normalised, social behaviour which is influenced by peers and which may not always be rooted in underlying psychopathology, such as borderline personality disorder (BPD), or it may derive from a somewhat different pattern of underlying psychopathology than that which is usually found among those who engage in DSH. This study aimed to explore the differences between self-harming and non-self-harming adolescent girls, and between girls who self-harm for social reasons and those who endorse other reasons for DSH, in terms of social influence, underlying psychopathology and normalising of DSH. Participants were 387 adolescent girls (303 non-self-harmers and 84 self-harmers) from schools in the greater Auckland area. Results showed that socially-motivated self-harmers were more susceptible to peer pressure and endorsed higher levels of normalisation of DSH than their counterparts, although overall levels of normalisation were low. However, those who endorsed social reasons for harm did not do so exclusively and were just as likely to endorse emotional reasons. Social harmers did not differ from other harmers in terms of psychological problems but indicated that the impact of their problems was less. When compared to non-self-harmers, the self-harming girls scored higher in peer influence and lower in parent influence, and also scored higher on measures of psychopathology. Clinical implications and suggestions for further research are discussed.

Acknowledgments

I would like to thank my family and friends for supporting and encouraging me throughout my doctoral studies. Apologies for all the times I said I couldn't do things because I was working on my thesis. Thanks to Leonie and Travis for your help with data collection and to Ros and Maren for encouraging me to keep going when I felt like giving up. To Colleen and Johnnie, sorry for all the cancelled dinners.

I would like to thank my thesis supervisors Dr Richard Fletcher and Dr Heather Buttle. To Heather, thanks once again for always reading my drafts so quickly, even when they came at the last minute, and for providing thoughtful comments and encouragement. To Richard, thanks for your invaluable guidance, for your support and belief in me… and for not giving up on me when life got in the way of my studies. Thank you especially for your caring and kindness when my father became ill and passed away during my studies. And thanks for always having my back. Richard, you are one in a million!

Thanks to the schools who agreed to allow their students to participate in this study. Particular thanks to the school guidance counsellors for their assistance in co-ordinating the logistics of administering the questionnaire and their continued support of the girls in their care. I would like to give special thanks to the girls who participated in this study for their willingness to complete the questionnaire – revealing self-harm and exposing one's personal beliefs about oneself can be an intimidating experience. I hope the results of this study will add to a growing understanding of these vulnerable girls and guide therapists in appropriate interventions so that future generations of young people will benefit from this knowledge.

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Chapter One: Introduction

There are many strategies people use to cope with difficult situations and feelings. While some coping strategies are considered adaptive and helpful, others are considered maladaptive and bring with them their own set of problems (Haines & Williams, 2003). One coping strategy which is deemed maladaptive is deliberate self-harm (DSH; Hicks & Hinck, 2008; International Society for the Study of Self-Injury, 2007; Mikolajczak, Petrides, & Hurry, 2009), a phenomenon that is on the rise in today's population, particularly amongst adolescent females (Derouin & Bravender, 2004; Hall & Place, 2010; Hawton et al., 2007; Hawton, Fagg, Simkin, Bale, & Bond, 2000; Hawton et al., 2003; Muehlenkamp, 2005). A community study amongst adolescents found that 13.9% had self-harmed at some point, with females reporting higher rates of DSH than males (Ross & Heath, 2002). These figures may be even higher as many who deliberately injure themselves do not come to the attention of medical or mental health professionals.

The terminology used to describe DSH has varied over the years, as has the definition of what constitutes DSH. Whereas once suicidal behaviours would have been included as DSH, there has been a move to distinguish DSH without suicidal intent from attempted suicide (Shaffer & Jacobson, 2009; Solomon & Farrand, 1996). Currently, the most widely accepted definition of DSH excludes self-harm that is with suicidal intent (Nock & Favazza, 2009). By redefining the terminology and recognising the intent behind DSH, current research is able to more accurately explore the phenomenon and build a knowledge of DSH that has a consistent foundation. Since the time of writing, the term "non-suicidal self-injury" (NSSI) has become the standard terminology when referring to DSH. Throughout this thesis, the terms DSH and NSSI

can be considered interchangeable and refer to self-harming acts which are without suicidal intent.

The literature focusing on DSH has been growing exponentially over the last 10 to 15 years (Nock, 2009a). The most consistently endorsed reasons for engaging in DSH are based on distress relief and attenuation of emotional numbness (Briere & Gil, 1998; Klonsky, 2009; Nock & Prinstein, 2004). These distressing symptoms are most often linked with borderline personality disorder (BPD) and, indeed, it is BPD that is the most common diagnosis associated with those who engage in DSH, likely due to DSH being seen as an integral feature of BPD (Shaffer & Jacobson, 2009) in the Diagnostic and Statistical Manual for Mental Disorders IV (DSM-IV-TR; American Psychiatric Association, 2000). While early studies predominantly explored the prevalence of DSH, more recently there has been considerable focus on determining the function that DSH serves for those who engage in self-harming behaviours (Gratz, 2003; Haas & Popp, 2006; Iwata, Dorsey, Slifer, Bauman, & et al., 1994; Klonsky, 2007, 2009; Lloyd-Richardson, Nock, & Prinstein, 2009; Nock, 2009b).

Over the last few years, there have grown a number of youth subcultures which may have altered the way adolescents perceive DSH. One such group is Emo, a culture which originated through a style of music characterised by high emotionality and feelings of vulnerability (Bailey, 2005). Those who define themselves as Emo tend to dress in a particular style, consider themselves misunderstood and overtly express their emotions, often through self-harming behaviours (Scott & Chur-Hansen, 2008). Subcultures such as Emo give rise to the question of whether DSH has become a more widely accepted and normalised behaviour among adolescents in general.

Adolescence is a time when peer relationships become increasingly important to young people and where the behaviour of friends and cliques has greater influence on

the behaviour of individuals (Wang, Peterson, & Morphey, 2007). Most studies exploring the motivations for engaging in DSH have placed little or no emphasis on peer influences or social contagion effects, although a number of recent studies of DSH have suggested that peer contagion may be a contributory factor toward the rising rate of DSH among adolescents (Muehlenkamp, Hoff, Licht, Azure, & Hasenzahl, 2008). The increased media attention on DSH, the availability of internet forums for discussion of DSH-related topics, and the high visibility of groups engaging in DSH, such as those affiliated with Emo culture, propound the possibility that peer influence, contagion effects and normalising of behaviours once considered deviant, may be factors playing a role in the increase in adolescent DSH (Whitlock, Purington, & Gershkovich, 2009).

The prospect that DSH may have become a normalised behaviour among adolescents and that social factors may play a role in DSH, raises the possibility that there may be a subgroup of self-harmers who do so for social reasons, rather than for the more commonly understood motivations. Consequently, it may be that these social harmers exhibit a somewhat different profile of underlying psychological difficulties and maladaptive schemas than those who harm for predominantly emotional reasons. Few studies have investigated maladaptive schemas specifically in relation to DSH in adolescents. Those studies which do exist have most commonly focused on BPD and/or relied on clinical populations (Dench, Murray, & Waller, 2005; Farrell, Shaw, & Webber, 2009; Giesen-Bloo et al., 2006; Lawrence, Allen, & Chanen, 2011; Nordahl, Holthe, & Haugum, 2005) and therefore, may not have captured this perhaps unique subset of self-harmers.

Aims of the Study

This study, therefore, aimed to investigate the role of social factors as a motivation for deliberate self-harm (DSH) among adolescents. By examining the early maladaptive schemas of both self-harming and non-self-harming adolescents, together with a screen for psychological difficulties, this study hoped to explore whether those who harm for social reasons differ from those who don't endorse social reasons, in terms of psychopathology and maladaptive schemas, as well as in social influence, normalising and secrecy around DSH.

A further aim was to investigate the differences in levels of social influence in self-harmers when compared to both non-self-harmers and to those self-harmers without apparent BPD traits, and to explore how these social influences related to other factors, such as schemas and reasons for self-harm. Another aspect of interest in this study was whether the increased awareness of DSH among adolescents had resulted in adolescents considering DSH a normalised behaviour.

Investigations into peer influence effects on health-risk behaviour have suggested that there may be an iatrogenic effect of group-based interventions whereby the maladaptive behaviours being treated may be exacerbated, rather than reduced, by discussion and exposure to others engaging in the problematic behaviour. This factor needs to be taken into account when considering the most efficacious methods of treatment for adolescents engaging in DSH. Discussions of DSH with other individuals engaging in DSH may have the opposite effect to that desired, thus increasing, rather than decreasing, the behaviour. Therefore, identifying any peer influence or social contagion effects, as well as the schemas that underlie DSH, will provide valuable information for clinicians as to treatment options and direction.

Chapter Two: Deliberate Self-Harm

Definition

There are several terms used interchangeably for deliberate self-harm. These include deliberate self-injury, self-mutilation, parasuicide, non-suicidal self-injury and self-aggression. Nock and Prinstein (2004) define DSH as the intentional injury to one's body tissue without suicidal intent. It may manifest in a variety of forms including cutting, burning, picking, scratching, banging and bone-breaking, as well as interfering with wound healing (Klonsky, 2007; van der Kolk, Perry, & Herman, 1991). More recently, the phrase "for purposes not socially sanctioned" (International Society for the Study of Self-Injury, 2007) has been added to the definition in order to exclude acts such as tattooing and body piercing.

Favazza's (1998) generally accepted classification of DSH provides three distinct categories: major, stereotypic and superficial/moderate. Major self-harm, which occurs infrequently, refers to behaviours such as limb amputation and castration. These acts are often associated with psychosis and may have religious or sexual themes.

Stereotypic self-harming behaviours are commonly repetitive and often rhythmic. These include such acts as banging or hitting the head or arms, gouging the throat and eyes, dislocating joints and tooth extraction. Stereotypic self-harm may occur in the presence of others and is common among the intellectually impaired who are institutionalised (Favazza, 1998).

The third, and most common, category of DSH is superficial/moderate self-harm. Trichotillomania and acts such as nail biting and skin picking fall into the compulsive subtype of this category. The two other subtypes are episodic and repetitive which include behaviours such as cutting, burning, bone breaking and interfering with wound

healing. Skin cutting is overwhelmingly the most common method of DSH (De Leo, 2004; Favazza & Conterio, 1989; Hawton, Rodham, & Evans, 2006; Nock, 2009b). Episodic and repetitive superficial/moderate self-harm are the forms of DSH focused upon in this study.

DSH vs Suicide

The definition of DSH within the literature varies, with many studies including suicidal behaviour within the realm of DSH. However, accounts of DSH described in the study by Solomon and Farrand (1996) clearly distinguished DSH from suicidal behaviour. Moreover, DSH was considered a preferable alternative to suicide and therefore interpreted as a means of survival. Favazza (1998) clarifies the distinction by suggesting that those who attempt suicide wish to stop feeling, whereas those who self-harm wish to feel better. The common presumption that DSH is linked to suicide is damaging because DSH, when not described in terms of suicidal intent, is often considered an act of manipulation which the self-injurer could control with sufficient motivation (Solomon & Farrand, 1996). Rather than minimising the past and present experiences of those who self-harm, as is the case in the medical model, contextualising DSH as an adaptive coping strategy under impossible circumstances facilitates better understanding of DSH as a strategic alternative to suicide.

Classification

In the 1980's it was suggested that a Deliberate Self-Harm Syndrome be established (Pattison & Kahan, 1983) which is typified by "chronic, low lethality self-mutilation, episodic anorexia-bulimia-alcohol abuse, a history of childhood sexual and physical abuse, and familial alcoholism" (Favazza & Conterio, 1988; Pattison & Kahan,

1983, p. 29). Currently there is no classification in the DSM-IV-TR (American Psychiatric Association, 2000) for DSH, although self-harming behaviours contribute to the diagnostic criteria for borderline personality disorder. While DSH is most commonly linked with BPD, it frequently appears in conjunction with eating disorders, and has been associated with schizophrenia, dissociation, posttraumatic stress disorder, depressive disorders, substance abuse, anxiety disorders and personality disorders (Cumming, Covic, & Murrell, 2006; Favazza, 1989; Favazza, DeRosear, & Conterio, 1989; Ross & Heath, 2003; Sansone & Levitt, 2002; van der Kolk et al., 1991).

Since the 1980's there has been a growth in the number of studies exploring DSH and a consequent increased awareness of the manifestations of DSH (Nock, 2009a). Once again it has been proposed that a separate diagnostic category be introduced for DSH in the latest version of the DSM (Muehlenkamp, 2005). In their proposal to the DSM-V Childhood Disorder and Mood Disorder Work Groups, Shaffer and Jacobson (2009) reason that including DSH exclusively within the criteria of BPD, or categorising it as a failed suicide attempt, is not appropriate as many who engage in DSH do not meet the criteria for BPD (Muehlenkamp, Ertelt, Miller, & Claes, 2011), have no suicidal intent and use methods that are rarely successful in causing death. Further, the restriction of DSH to these contexts tends to confuse research findings and may result in misleading or inaccurate information being used as the basis for policy decisions and clinical care.

The DSM-V draft revision (American Psychiatric Association, 2010) uses Shaffer and Jacobson's (2009) proposed criteria for a Non-Suicidal Self Injury Disorder (NSSI), to be included in Other Disorders, as follows:

> **"A.** In the last year, the individual has, on 5 or more days, engaged in intentional self-inflicted damage to the surface of his or her body, of a sort

likely to induce bleeding or bruising or pain (e.g., cutting, burning, stabbing, hitting, excessive rubbing), for purposes not socially sanctioned (e.g., body piercing, tattooing, etc.), but performed with the expectation that the injury will lead to only minor or moderate physical harm. The absence of suicidal intent is either reported by the patient or can be inferred by frequent use of methods that the patient knows, by experience, not to have lethal potential. (When uncertain, code with NOS 2.) The behavior is not of a common and trivial nature, such as picking at a wound or nail biting.

B. The intentional injury is associated with at least 2 of the following:

1. Negative feelings or thoughts, such as depression, anxiety, tension, anger, generalized distress, or self-criticism, occurring in the period immediately prior to the self-injurious act.
2. Prior to engaging in the act, a period of preoccupation with the intended behavior that is difficult to resist.
3. The urge to engage in self-injury occurs frequently, although it might not be acted upon.
4. The activity is engaged in with a purpose; this might be relief from a negative feeling/cognitive state or interpersonal difficulty or induction of a positive feeling state. The patient anticipates these will occur either during or immediately following the self-injury.

C. The behavior and its consequences cause clinically significant distress or impairment in interpersonal, academic, or other important areas of functioning.

D. The behavior does not occur exclusively during states of psychosis, delirium, or intoxication. In individuals with a developmental disorder, the behavior is not part of a pattern of repetitive stereotopies. The behavior cannot be accounted for by another mental or medical disorder (i.e., psychotic disorder, pervasive developmental disorder, mental retardation, Lesch-Nyhan Syndrome).

Potential NOS Categories if DSM-5 adopts subtyping NOS categories:

Non-Suicidal Self-Injury Disorder, Not Otherwise Specified (NOS), Type 1, Subthreshold: The patient meets all criteria for NSSI disorder, but has injured himself or herself fewer than 5 times in the past 12 months. This can include individuals who, despite a low frequency of behavior, frequently think about performing the act.

Non-Suicidal Self-Injury Disorder, Not Otherwise Specified (NOS), Type 2, Intent Uncertain: The patient meets criteria for NSSI but insists that in addition to thoughts expressed in B4 also intended to commit suicide."

Epidemiology

The statistics around DSH and the demographics of those who deliberately self-harm are somewhat varied. There are a variety of reasons that this may be the case. A large number of studies include failed suicide attempts in their sample (see for example, Blenkiron & Milnes, 2003; Boergers, Spirito, & Donaldson, 1998; Haw & Hawton, 2008; McNicholas, O'Sullivan, Lennon, Doherty, & Adamson, 2010; Morgan, Byrne, Boylan, McLearie, & Fitzpatrick, 2009; O'Connor, Armitage, & Gray, 2006). As stated earlier, more recent literature has tended to differentiate between suicide attempts and DSH with no suicidal intent. Similarly, a number of studies have recruited their sample

population from hospital emergency facilities and, in many cases, these represent failed suicide attempts. However, the majority of those who self-harm without suicidal intent, especially adolescents, do not seek medical attention (De Leo, 2004; Fortune & Hawton, 2005; Hawton, Rodham, Evans, & Weatherall, 2002) and hence are not included in these studies. Therefore, comparison and interpretation of prevalence rates becomes somewhat problematic (Rodham & Hawton, 2009).

Deliberate self-harm typically begins in early adolescence (Favazza & Conterio, 1988; Kumar, Pepe, & Steer, 2004; Nock & Prinstein, 2004; Ross & Heath, 2002). In adolescent or young adult community samples, DSH rates have been reported as low as 2.8% (Hargus, Hawton, & Rodham, 2009) and as high as 65% (Lundh, Karim, & Quilisch, 2007), with most studies reporting between 13% and 25% (Hankin & Abela, 2011; Landstedt & Gadin, 2011; MacLaren & Best, 2010; O'Connor, Rasmussen, Miles, & Hawton, 2009; You, Leung, Fu, & Lai, 2011). Among the clinical population rates have been estimated between 4% (Dubicka, Hadley, & Roberts, 2006) and 61% (Diclemente, Ponton, & Hartley, 1991). A multicentre study examining DSH found that DSH occurred most frequently in females aged 15-19 years and in males aged 20-24 years (Hawton et al., 2007). While some studies have found no gender differences in DSH (Briere & Gil, 1998; Gratz, 2001), others have found that adolescent females are more likely to self-harm than adolescent males, but that the gender imbalance decreases with age (Hawton et al., 2007; Hawton & Harriss, 2008a, 2008b). In several community-based studies of adolescents, rates of DSH for girls were 2-8 times higher than for boys (De Leo, 2004; Landstedt & Gadin, 2011; Madge et al., 2008; McMahon et al., 2010; O'Connor et al., 2009; Ross & Heath, 2002). While rates of DSH in older adults has been less well reported than in adolescent samples, a review by Rodham and

Hawton (2009) suggested that DSH in older adults is more often associated with suicidal intent.

Risk Factors for DSH

Over the last ten years there has been a steadily growing body of literature which has attempted to explicate the risk factors for DSH. While a number of factors have been identified there is, as yet, no definitive set of criteria which makes one vulnerable to DSH. However, it has been posited that it is an interplay between environmental and individual factors which increases the risk for self-harming behaviours (Fliege, Lee, Grimm, & Klapp, 2009; Gratz, 2003).

Environmental risk factors which have been suggested to play a part in the development of DSH are primarily related to childhood maltreatment. Childhood sexual abuse has been explored in a number of studies (Fliege et al., 2009; Hicks & Hinck, 2008; Landstedt & Gadin, 2011; McMahon et al., 2010) and has long been thought to be fundamental to the development of DSH. Indeed, van der Kolk and colleagues (van der Kolk et al., 1991) found that childhood physical and sexual abuse predicted DSH and that lack of secure attachments maintained the behaviour. However, a meta-analysis conducted by Klonsky and Moyer (2008) found no empirical evidence for a causal relationship between childhood sexual abuse and DSH. Rather, a modest relationship was supported between sexual abuse and DSH due to matching psychiatric risk factors. Other environmental risk factors include invalidation by parents and/or peers (Adrian, 2010), familial conflict and relational problems (Adrian, Zeman, Erdley, Lisa, & Sim, 2011; Hankin & Abela, 2011; McMahon et al., 2010; Nock, 2010), maternal depression (Hankin & Abela, 2011), violence (physical, sexual and/or bullying; Landstedt &

Gadin, 2011), and lack of social supports (Adrian et al., 2011; Landstedt & Gadin, 2011; Scott, House, Yates, & Harrington, 1997).

The internal, or individual, factors which have been linked to the development of DSH include difficulty regulating emotions or cognitive state, low distress tolerance, emotional inexpressivity, affect intensity/reactivity, poor verbal and/or social skills, high impulsivity or novelty-seeking, poor problem-solving skills, low self-esteem, dissociation, depressive symptoms and hopelessness (Adrian, 2010; Adrian et al., 2011; Chapman, Gratz, & Brown, 2006; Fliege et al., 2009; Gratz, 2006; Hankin & Abela, 2011; McMahon et al., 2010; Nock, 2009b; Portzky, De Wilde, & van Heeringen, 2008; Scott et al., 1997).

Why Do People Self-Harm?

As the awareness around DSH has increased over the last decade, so too has the number of studies exploring the reasons people self-harm. There are a number of reasons which have been proposed in the literature and perhaps the most consistently endorsed reasons are to regulate or relieve distressing emotions such as anger, depression or anxiety; to escape or distract from a negative state of mind (for example to stop painful feelings, flashbacks, chaotic or racing thoughts); and to generate feelings by decreasing dissociation, depersonalisation, numbing, or emptiness (Briere & Gil, 1998; Klonsky, 2009). Other reasons which have also been identified are to decrease stress or tension; as a form of self-punishment; to relieve loneliness, guilt, shame or boredom; to avoid doing something one doesn't want to do (for example, going to school, doing homework, or socialising); to avert suicide; to cope with sexuality; to express one's uniqueness; to hurt oneself in lieu of others; as a means of attention- or thrill-seeking; and to communicate distress to others (Briere & Gil, 1998; Chapman et

al., 2006; Favazza, 1998; Favazza & Conterio, 1988; Fortune & Hawton, 2005; Haas & Popp, 2006; Hicks & Hinck, 2008; Klonsky, 2007; Klonsky & Muehlenkamp, 2007; Lloyd-Richardson, Perrine, Dierker, & Kelley, 2007; Nock & Prinstein, 2004, 2005).

A number of studies have investigated reinforcement as motivation for DSH (Hilt, Cha, & Nolen-Hoeksema, 2008; Lloyd-Richardson et al., 2007; Najmi, Wegner, & Nock, 2007; Nock & Prinstein, 2004, 2005; Repp, Singh, Olinger, & Olson, 1990). When examining self-reported motivations for DSH, these studies found that reinforcement was either automatic (reinforced by oneself) or social (reinforced by others). Examples of motivations which are automatically reinforcing include emotional regulation, self-punishment or generation of feelings. Socially reinforced motivations include communication of distress to others, avoidance of tasks or responsibilities, or to gain attention.

While DSH is most commonly thought of as a maladaptive behaviour, Solomon and Farrand (1996) argue that DSH may be better described as an adaptive act of survival in the face of an overwhelming sense of self-hatred and despair. Van der Kolk et al. (1991) suggest that DSH provides a means of detaching from unmanageable affective states by changing the "biological homeostasis" (p. 1670) and that dissociation is often contemporaneous. While it is theorised that DSH serves as a means of communicating a crisis out of control, DSH often goes undisclosed (Briere & Gil, 1998). However, Solomon and Farrand (1996) found that self-harm functioned as a means of communicating self-hatred to oneself and a state of emotional nadir from which one may begin to rise again.

DSH can be both a means of control and a statement of control. It has been described as a strategy to control the emotional chaos being experienced by the self-injurer, to feel "real" and to stave off debilitating depression. Furthermore, many self-

injurers hold the belief that suicidal behaviour constitutes a total loss of control (Solomon & Farrand, 1996). Therefore, while self-harming behaviour appears to be a choice, the choice is only between self-injury and suicide – to do nothing is not an option. At this point, DSH is also a clear statement of control or ownership of one's body (Solomon & Farrand, 1996).

There are other coping strategies that are considered maladaptive, such as alcoholism and drug use, however DSH differs in two major aspects. Firstly, DSH creates instantaneous physical pain and bodily damage which is deemed more manageable than emotional pain. While the reasons for emotional pain are less tangible and possibly too distressing to confront, the source of the physical pain is clear and visible, and the ongoing pain from the wound may serve as a continued physical distraction from the emotional pain. Even those who do not experience pain when self-harming find that the sight of the wound provides a release of tension. Secondly, the sight of blood, and the blood flow itself, have been found to relieve emotional tension and anger, possibly due to a perceived link between blood and tears (van der Kolk et al., 1991). Many consider that cutting is a unique form of DSH in that the sight of blood is the essential aspect. A study by Glenn and Klonsky (2010) found that almost half of the self-harming participants considered that seeing blood was an important element of their self-harm with relief following only once this had been achieved.

Functional Theories of DSH

Nock (2009b) conjectures that there are a number of theories which might explain why DSH serves the functions outlined previously. The self-punishment hypothesis proposes that those who engage in DSH may have learned to criticise themselves due to a history of childhood abuse, and that DSH may have become an extension of that self-

criticism. The social signalling hypothesis posits that DSH may be an effective method of communicating when less dramatic forms of communication have been ignored or invalidated. The pragmatic hypothesis is that DSH is quick and easily accessible for those who may not have the time or resources to access drugs or alcohol. Many individuals who engage in DSH report no pain during self-harm. The pain analgesia/opiate hypothesis suggests that this may be a function of habituation due to childhood abuse, may be due to higher levels of endorphins in the body, or that repeated DSH may result in the release of endogenous opiates. The implicit identification hypothesis suggests that identifying oneself as a "self-harmer" may serve to perpetuate self-harming behaviour. Finally, the social learning hypothesis suggests that heightened awareness of DSH through the observation of friends or through the media may account, at least in part, for the growth in DSH over the last decade.

The social learning aspect of DSH has been less well studied but there have been recent studies which suggest that engagement in DSH may have become a socialised behaviour (Heilbron & Prinstein, 2008). A retrospective study by Heath and colleagues (Heath, Ross, Toste, Charlebois, & Nedecheva, 2009) explored social factors relating to DSH in college students. They found that while most participants endorsed emotional reasons for harming, over 60% also endorsed social reasons and had engaged in DSH as a shared experience with others. Further investigations into social influence and social motivations for DSH are clearly warranted.

Chapter Summary

The number of studies exploring DSH has increased over the last ten to fifteen years, as has the reported prevalence of self-harming behaviours. Deliberate self-harm is the intentional injury of one's body tissue which is not socially sanctioned and which is

without suicidal intent. Cutting is by far the most common method of DSH, and this is particularly so amongst adolescent girls. Although DSH falls within the DSM-IV-TR diagnostic criteria for BPD, there has been a move to establish a separate diagnostic category for DSH, called Non-Suicidal Self-Injury Disorder, due to large numbers of individuals who self-harm but do not meet the criteria for a diagnosis of BPD.

It has been proposed that environmental factors such as childhood maltreatment and neglect, combine with internal factors such as deficits in emotional regulation and distress tolerance, and poor communication and problem-solving skills, to create a vulnerability to DSH. The self-harming behaviours then serve to fulfil such functions as relieving emotional distress, averting suicide, punishing oneself, avoidance, or communicating distress. Recently, it has been suggested that social influences may have contributed to the growth of DSH in the last decade and that there may be a social motivation for self-harming behaviours, especially amongst adolescent girls.

Chapter Three: Peer Influence and Social Contagion

It has been posited that social influences may have contributed to the increase in DSH over the last few years (Heilbron & Prinstein, 2008). Before examining social influence specific to DSH, it is important to explore what is currently known about peer influence and social contagion in general.

Theories of Peer Influence

Peer influence can be conceptualised within the behavioural framework or within an identity-signalling model. While the behavioural model suggests that behaviour is reinforced through external social rewards, the identity-signalling model focuses on internal self-appraisal as the motive for conformity.

From a behavioural perspective, social learning theories propose that behaviour is learned through modelling and reinforcement. Dishion, Spracklen, Andrews and Patterson (1996) conducted an experiment with adolescent boys to investigate the effects of peer reinforcement on antisocial behaviour. The participants consisted of boys who had previously been arrested (delinquent) and those who had not (non-delinquent). The boys were paired as either two delinquents, two non-delinquents or mixed delinquent and non-delinquent, and videotaped while discussing normative or rule-breaking behaviours. Results showed that in the delinquent dyads, rule-breaking talk was reinforced by nodding or laughing (deviancy training) whereas in the other dyads, it was normative talk that was reinforced with laughs or smiles. A follow-up two years later showed that the positive reinforcement by peers of rule-breaking talk was predictive of greater levels of subsequent delinquent behaviour. While DSH may not be termed “delinquent” behaviour, it does fall outside what is generally considered

culturally acceptable behaviour. The results of this study suggest that positive reinforcement by peers who also engage in DSH may contribute to the maintenance of self-harming behaviours.

Within the identity-signalling framework, peer influence is primarily related to self-concept (Heilbron & Prinstein, 2008). Individuals engage in behaviours which enhance their positive self-concept or portray them in a favourable light to those whom they wish to impress. Juvonen and Ho (2008) conducted a longitudinal study with middle school participants (6^{th} to 8^{th} grade) exploring social motives underlying peer influence, specifically social mimicry (distant peers with no affiliation but who were popular), unreciprocated attraction (someone who was admired whom the participant wished to befriend) and mutual attraction (similar peers who socialised together). They found that it was unreciprocated attraction toward an individual who engaged in aggressive behaviours that predicted subsequent antisocial conduct in the participant. Hence, it is possible that individuals who are overt about their DSH behaviours may unknowingly promote self-harm in others who might admire them. This may apply not only to admired peers within the school environment but also to media celebrities who publicly disclose self-harming behaviours, such as Princess Diana, Johnny Depp and Angelina Jolie (*Famous self-injurers*, 2011).

The prototype/willingness model (Gibbons, Gerrard, Blanton, & Russell, 1998) suggests that one evaluates a specific behaviour in relation to its desirability amongst one's peers. If the behaviour is evaluated as being favourable, the individual may then signal a willingness to engage in the behaviour by expressing positive attitudes towards the behaviour. However, willingness and intent, while related, are independent constructs and intent to actively adopt the behaviour only occurs when the context and opportunity are available. For the individual who has, perhaps, been attracted to the idea

of DSH following an admired celebrity's self-harm disclosure, this may mean that the decision to actually engage in self-harm may not occur until they are faced with a distressing emotional situation. Alternatively, they may wish to experiment with DSH at a time when they feel they are in a safe or private environment.

Deviance regulation theory (Blanton & Christie, 2003), also within the identity-signalling structure, proposes that individuals wish to affiliate with their peers while at the same time differentiating themselves from them. In order to do this, they choose to deviate from social norms in ways which are considered desirable, but avoid deviating in ways which are deemed undesirable. In simpler terms, "people try to 'stick out' from others in good ways but not in bad ways" (p. 115). They must balance a similarity to their desired reference group while maintaining a sense of individuality or uniqueness. For those individuals who identify with groups such as Emo, engaging in DSH likely constitutes a normal or acceptable behaviour and it may be that variations on, or extremes of, methods of DSH may be a means of expressing individuality in a socially desirable way. In other groups, DSH may be a way of "sticking out" when the reference group considers risky or thrill-seeking behaviours to be desirable. Among the more mainstream population, it may be that engaging in DSH constitutes an undesirable behaviour which must be kept secret so as not to "stick out in a bad way".

Peer Influence

There is a wealth of literature available which explores the concept of peer influence in adolescence (see for example, Allen & Antonishak, 2008; Dishion & Dodge, 2005; Gibbons et al., 2010; Steinberg, 1986; Wang et al., 2007). Research has consistently found that a strong predictor of adolescents engaging in a particular behaviour is the degree to which they believe their peers are also engaging in that

behaviour (Heilbron & Prinstein, 2008). This is possibly due to the principle of homophily which explains that individuals are more likely to have social interaction with others who are similar to themselves. Kandel (1978) proposed two precepts of homophily, those of selection effects and socialisation effects. The premise of selection effects is that individuals select friends who are similar to themselves and who exhibit similar values, beliefs and behaviours. Socialisation effects occur when an individual's values, beliefs and behaviours become similar to those with whom they socialise. This is particularly relevant in adolescence, which is a time when individuals are still in the process of developing their identity in relation to their peers. Whether an individual chooses to engage in DSH because their friends are self-harming (socialisation effects), or whether they choose to socialise with others who harm (selection effects), is unclear. Does the Emo adolescent self-harm to fit in with the Emo group, or does she/he choose Emo friends because she/he self-harms?

For the individual beginning to establish their own identity, adolescence is a time when status is particularly important. The desire to impress and to be seen to be similar to those of high status influences an adolescent's behaviour. Cohen and Prinstein (2006) conducted an experiment with adolescent males which investigated status in relation to peer influence. Participants engaged in a chat-room discussion with other students whom they believed to be their peers. The perceived status of the confederates, who supported aggressive and health-risk behaviours, was manipulated. Results showed more conformity, greater internalisation of attitudes and higher exclusionary behaviour when chatting with high-status peers. This effect was moderated by social anxiety in that socially anxious participants were equally influenced by both high- and low-status peers, while non-anxious participants were influenced only by high-status peers. This raises two possible implications for self-harm. Firstly, the likelihood of a self-harming

adolescent influencing others into DSH would seem greater if the self-harmer was of high status, or considered popular. Secondly, given that poor social skills and low self-esteem are theorised risk factors for DSH (Fliege et al., 2009; Nock, 2009b), and that these traits are likely to pertain to socially anxious adolescents, there appears to be an increased risk that these youngsters may be socially influenced into engaging in DSH by both high-status, popular self-harmers and low-status, outgroup self-harmers, alike.

Empirical studies have consistently found evidence for peer influence effects in a wide range of behaviours. These studies have most often explored negative/antisocial or risky behaviours, including delinquency (Dishion et al., 1996), self-aggressive behaviours (Berman & Walley, 2003; Sloan, Berman, Zeigler-Hill, & Bullock, 2009), health-risk behaviours (Prinstein, Boergers, & Spirito, 2001), aggression (Cohen & Prinstein, 2006), substance use (Engels & ter Bogt, 2001; Rende, Slomkowski, Lloyd-Richardson, & Niaura, 2005), risky sexual behaviours (Potard, Courtois, & Rusch, 2008) and risk-taking (Rolison & Scherman, 2003). More recently, studies have also explored peer influence in relation to prosocial behaviours. In a longitudinal study of 9th and 10th grade students, Barry and Wentzel (2006) found that an individual's goal pursuit, and in turn their prosocial behaviour, was significantly associated with their close friend's behaviour, and that this relationship was moderated by the affective quality of the friendship. Girls were also more likely than boys to be considered by their peers as prosocial in their behaviours.

It would seem that peer influence applies to both risky/antisocial behaviours and also to prosocial behaviours, particularly in girls. However, it is not clear whether these are mutually exclusive – that is, if risky behaviours increase, do prosocial behaviours decrease? As self-harming behaviours would appear to fit the category of risky behaviours, it would be of interest to discover whether adolescent girls who are highly

susceptible to peer influence and who self-harm are lower in prosocial behaviours than their non-self-harming peers.

Tenets of Peer Influence

Brown, Bakken, Ameringer and Mahon (2008) proposed twelve guiding principles of peer influence which incorporate the elements discussed above (pp. 23-31). These are summarised as follows:

1. *"Peer influence is a purposive behaviour"*

   Whether influencing or being influenced, there is a motivation for adolescents to engage in peer influence. These motivations may include maintaining group norms; enhancing relationships with others; advancing one's own, or another's, status; or protection of one's dominant position in a group.

2. *"There are multiple modes of peer influence"*

   Modes of influence include peer pressure, behavioural display (or role modelling), antagonistic actions, behavioural reinforcement and structuring opportunities.

3. *"Peer influence can be direct or diffuse, intentional or unintentional"*

   The initiator of a behaviour may intend to influence a particular group but may also unintentionally influence a different group, either toward or away from a similar behaviour.

4. *"Multiple peer influences operate simultaneously or contemporaneously"*

   Adolescents may be susceptible to conflicting influences from a number of sources. This might include immigrant youth whose home and peer environments differ in cultural norms.

5. *"Peer influence is a reciprocal, transactional process"*

   While it may be apparent when one individual openly attempts to influence another, a less apparent influence may occur due to the response of the other individual, for example, engaging in a behaviour opposite to the intended influence.

6. *"Peer influence is contingent on openness to influence"*

   In order for influence to occur, an individual must be aware of the behaviour of the influencer. Influence may also depend upon the individual's disposition or susceptibility to influence.

7. *"The impact of peer influence depends on the salience of those exerting influence"*

   Status can affect the level of influence exerted on an individual. Typically those of high status, or who are admired, tend to exert the most influence. However, those of low status or who are undesirable may exert influence in the opposing direction.

8. *"Relationship dynamics also affect the capacity of particular peers to influence an adolescent"*

   While one would expect that close friends would exert the most influence on an adolescent, this is equivocal. Often new acquaintances, or those in the early stages of a relationship, may have more influence due to the desire to please or impress.

9. *"Peer influence is contingent on an individual's opportunity and capacity to enact the behaviour"*

   Although peer influence is often direct and immediate, it may lose its effectiveness if the recipient is not able to perform the activity.

10. *"Other individual differences can affect exposure or response to peer influence"*

    Apart from those aspects listed above, other factors may moderate or mediate peer influence. These factors are numerous, but may include such characteristics as gender, personality or psychological state.

11. *"Peer influence is situated behaviour"*

    The response to peer influence may differ depending upon the context. Where an authority figure may witness a behaviour, the peer influence may be less robust than when the behaviour is witnessed by peers.

12. *"Peer influence is a temporal process, existing in several dimensions of time"*

    The result of peer influence may occur immediately after exposure, but sometimes if may take a number of episodes before influence occurs. It may also occur in the

absence of the influential group, due to an anticipation of the reaction of the group.

Social Contagion

While there has been considerable research into the extent of peer influence in dyadic relationships (best friend, boyfriend/girlfriend) and social cliques, there is evidence suggesting that peer influence also occurs in the wider context of other students in the same year or at the same school. Expanding on the previously outlined aspects of peer influence, social contagion refers to the way in which trends, fads, fashions and behaviours become widespread. A more subtle form of peer influence, individuals may not necessarily be aware that they are being influenced by others (Heilbron & Prinstein, 2008).

Using an identity-signalling model, Berger (2008) identifies three groups – the mainstream, the marginalised and the hipsters. The mainstream represents the majority culture. Marginalised groups are those who are considered outgroups or are discriminated against by the mainstream. The hipsters, while being part of the mainstream, wish to distinguish themselves from the majority. Berger's model proposes that the hipsters adopt a behaviour (or fashion, or trend, or saying, etc.) that distinguishes themselves and allies them with a preferred group. However, once this behaviour has been adopted by the mainstream it becomes normalised and the original group abandons the behaviour as it no longer represents an identifying symbol for the group. Ironically, often the behaviour adopted by the hipsters has originated from the marginalised group and may have been considered deviant or abnormal. The hipsters' adoption of this behaviour alters its status to "cool", which then makes it desirable to the mainstream. Ultimately, the behaviour is often abandoned by all groups as it no

longer signals meaning for anyone. In this way, a behaviour can become normalised among the mainstream population.

Over the last few years Emo culture, which is often associated with DSH, has become common in secondary schools (Scott & Chur-Hansen, 2008). Using Berger's (2008) model of social contagion, those identifying as Emo would be classed as a marginalised group. It is possible that DSH, which once was identified as a deviant behaviour, may have been adopted by those wishing to appear brave or "cool" and then spread to the mainstream to become a normalised behaviour.

Social contagion has been shown to occur in relation to depression (Brent, Perper, Mortiz, Allman, & et al., 1993; Prinstein, 2007; Stevens & Prinstein, 2005), aggression, antisocial and externalising behaviours (Cohen & Prinstein, 2006; Hanish, Martin, Fabes, Leonard, & Herzog, 2005; Jones, 1998; Jones & Jones, 2000; Lee & Thompson, 2009; Warren, Schoppelrey, Moberg, & McDonald, 2005), eating disorders (Crandall, 1988; Forman-Hoffman & Cunningham, 2008) and sexual behaviours (Rodgers et al., 2000; Rodgers & Rowe, 1993; Rodgers, Rowe, & Buster, 1998), as well as in smoking and substance use (Gibbons et al., 2010; Rende et al., 2005; Rowe, Chassin, Presson, Edwards, & Sherman, 1992). Perhaps the most widely reported behaviour where social contagion is apparent is that of suicide. De Leo and Heller (2008) reported the results of a number of large international studies which have investigated the contagion of suicide and found that, even in cases where a family member had committed suicide, it was the social group of the participant which was a stronger predictor of future suicidal behaviours. In adolescents, a fatal suicide either in the family or in the social circle, did not predict suicidal behaviour, but a non-fatal suicide attempt was predictive of self-harming behaviours and suicidal ideation. Thus, the more discussion there is of the suicide, the more glorified the act becomes, which can result in an increased possibility

that a vulnerable young person experiencing similar problems may see suicide as an attractive option.

Suicide contagion may also occur as the result of the death of an admired public figure. Hawton and colleagues (2000) investigated rates of suicide following the death of Princess Diana. They found that in the month following Princess Diana's death, suicides increased by 17.4% overall, and the increased rate was most marked in females aged 25-44. They also found that rates of DSH reporting to emergency departments in the week following the death increased by over 40% overall, again most markedly in females with an increase of over 60%. While the statistical increase was delayed for suicide, the increase was immediate for presentations of DSH.

Numerous behaviours, including suicide, have become more visible than ever before through the media and the internet. Young people in particular are avid users of the internet and, through mediums such as Facebook and internet chat rooms, have contact with a far wider circle of people than would once have been possible. They are also able to view risky behaviours through sites such as You Tube and are quick to post links for others to check out the content. Thus, it is disturbing that the social contagion of these behaviours can become international extremely rapidly.

Internet forums are also widely available to young people. There are numerous sites offering support and sharing for an almost limitless number of issues which might be experienced by adolescents, including anorexia nervosa, bulimia, sexual abuse, gender identity, domestic violence and teen pregnancy, to name but a few. Deliberate self-harm is no exception, with a simple Google search producing pages of hits for website forums related to self-harm. While these sites can offer genuine assistance and comfort for afflicted teens, they can also create an environment for sharing of ideas and techniques for deviant conduct, thus increasing the problem behaviours. They can even

create a competitive milieu whereby members feel the need to increase the severity of a behaviour. This is often seen in anorexia nervosa, where individuals are driven to be thinner than other anorexics in order to prove that they are worthy. The exposure to vast numbers of other teens experiencing similar issues can serve to normalise a behaviour which would generally be considered aberrant. For the vulnerable or distressed teen who has not yet engaged in DSH and is seeking solutions for emotional relief, these sites may become the medium of social influence which tips the scales in the direction of DSH as a "normal" coping mechanism.

Parent Influence

While the impact of peer influence on adolescent behaviour is well documented and appears to be evident, parents' attitudes, values and behaviours also have a significant influence on an adolescent's moral development and on their decision to engage in specific behaviours. As children mature into adolescents they tend to become more independent, which can result in decreased input from the parent in terms of guidance and control over behaviours.

A number of studies have explored parental influence in relation to a range of behaviours including criminal behaviour (Perrone, Sullivan, Pratt, & Margaryan, 2004), relationship violence (Arriaga & Foshee, 2004), smoking (Hine, McKenzie-Richer, Lewko, Tilleczek, & Perreault, 2002), sexuality (Fitzharris & Werner-Wilson, 2004), delinquency (Brendgen, Vitaro, Tremblay, & Wanner, 2002) and other problem behaviours (Moser & Jacob, 2002). In a study comparing parental and peer influence in short-term and long-term lifestyle choices in a group of early adolescents, Wang, Peterson and Morphey (2007) found that while peers were influential in an adolescent's choice of behaviours with short-term consequences (e.g. music, hair, clothes), parental

influence was greater for long-term lifestyle choices (e.g. school success, substance use, sexual activity). Their findings also refuted the assumption that peer and parent influences were opposing and conflictual. However, as this study was conducted with younger adolescents who are still more closely monitored by their parents than older teens, it is possible that different outcomes would occur with older adolescents.

Steinberg (1986) explored the effect of parental supervision on susceptibility to peer pressure in a large study of adolescents. Students were classified into seven groups according to the venue and supervision status of their after-school care arrangements. Results showed that adolescents who were disconnected from parental supervision were more susceptible to peer pressure to engage in antisocial activities. Girls who were supervised by an adult were less susceptible to peer influence than girls home alone; both girls and boys who were home alone were less susceptible than either gender who were at a friend's house after school; and all these students were less susceptible to peer pressure than those adolescents who were just "hanging out". Those adolescents whose parents knew where they were and what they were doing were less susceptible to peer pressure than their counterparts whose parents were unaware of their behaviours after school. The author concluded that firm parenting could create the basis for resistance to peer pressure, even in highly susceptible contexts.

Gibbons, Pompili and Gerrard (2008) suggest that parent influence takes the form of reasoned argument. The parents attempt to help their children think ahead and establish a plan of action for situations where they may be vulnerable to temptation. However, as many of an adolescent's risky behaviours are not planned, their choices are more likely to be determined by social reaction (Gibbons et al., 1998).

These results suggest that adolescents whose parents are more distal in their relationships may be at greater risk of succumbing to the influence of peers who engage

in antisocial or risky behaviours. They may also have a higher level of susceptibility to the more subtle effects of social contagion. As noted earlier, it has been proposed that familial conflict (Nock, 2009b) and parental invalidation (Adrian, 2010) may be risk factors for DSH. Therefore, youth who are already vulnerable through parental detachment or abuse may be at greater risk of succumbing to social contagion and peer influence in respect of DSH.

Social Influence & DSH

There are surprisingly few studies investigating social influence in relation to DSH in adolescents, although Hawton, Harriss and Rodham (2010) have posited that peer contagion may be an important aspect in DSH by adolescent girls. A review by Heilbron and Prinstein (2008) has also suggested that peer contagion may be partially responsible for the increase in rates of DSH in adolescents. Those studies which do exist have often been conducted with clinical samples of self-harmers, typically those with BPD. Perhaps this reflects the remarkably high rate of DSH in adolescent clinical inpatient facilities (Diclemente et al., 1991). Rosen and Walsh (1989) investigated a social contagion effect of DSH within an adolescent inpatient setting and concluded that contagious DSH was best understood in terms of dyadic or small-group bonding. Those involved in these episodes were most likely to be highly enmeshed, have difficulty forming conventionally intimate relationships and to find shared acts of DSH exhilarating.

Given that public awareness of DSH has grown through media attention and that internet discussion forums dedicated to DSH have become increasingly popular among adolescents, there is a need to broaden the scope of research by investigating non-clinical community populations. In two longitudinal studies of adolescents who engaged

in DSH, Prinstein and colleagues (2010) found evidence of both socialisation and selection effects. Both studies assessed participant's and best friend's DSH as well as depressive symptoms – one study with a community sample, and the other with clinical adolescent inpatients. Their results suggested that gender moderated peer socialisation effects, even controlling for depressive symptoms, with girls more likely to be influenced by the perception of their friends' DSH, and that this was more predominant in younger youth.

While adolescent DSH has traditionally be considered a deviant and secretive act by troubled youth, it would appear that social influences may have normalised the behaviour and reduced the secrecy surrounding it. In a retrospective study by Heath and colleagues (Heath et al., 2009) the influence of social factors was explored with an undergraduate sample of young adults. Results showed that a large proportion of self-harmers had first heard about DSH from outside sources, including friends and the media. Most knew others who harmed and most also had discussed their harming with friends. Nearly a fifth of these participants had harmed in front of their friends or harmed with others as part of a group. This study also explored social supports among participants and found that although there was no difference in parental support, perceived peer support was significantly higher for those individuals who did not engage in self-harm.

Chapter Summary

Research has provided strong evidence for the effects of peer influence in a wide range of behaviours, both antisocial and prosocial. It has consistently been found that a strong predictor of an adolescent engaging in a particular behaviour is the belief that their friends are also engaging in the same behaviour. Due to both socialisation effects

and selection effects, adolescents are likely to associate with others who are similar to themselves in attitudes and behaviours. When the peers are of high status, it is more likely that the individual will wish to impress and therefore will also engage in the behaviour. It is unclear whether DSH is a behaviour found predominantly among the lower status groups, or whether it has transcended the outgroups and become the domain of the high-status, popular groups, thereby becoming an apparently "normal" or "cool" behaviour which others might wish to emulate. It is also unclear whether those who engage in risky behaviours such as DSH are less likely to engage in prosocial behaviours.

The two main models of peer influence are the behavioural model, where social influence occurs through modelling and reinforcement, and the identity-signalling model which posits that one engages in a behaviour in order to enhance one's internal self-concept, to portray oneself favourably in front of others, or to differentiate oneself from others.

Peer influence can be intentional or unintentional and the effect can be moderated by such characteristics as gender, personality or psychological state, as well as by the context of the situation. In order for influence to occur, one must not only be susceptible to the influence and be willing to engage in the behaviour, but one must have the opportunity as well.

Studies exploring parent influence have shown that where a parent has limited monitoring and low contact with their adolescent, the effects of peer influence are more evident. Strong parenting has been shown to reduce peer influence, even in highly susceptible situations. As the suggested risk factors for DSH include conflictual parent/child relationships, it may be that self-harmers are more susceptible to peer influence than their non-self-harming counterparts.

Social contagion is a more subtle form of social influence. It refers to the way fads and behaviours are spread and how behaviours can, therefore, become normalised. The media and the internet, especially social networking sites, have a massive influence on the way trends become more visible and popular with adolescents.

The high visibility of DSH in the media and internet discussion forums may have contributed to a social contagion effect which has resulted in an increase in DSH in the non-clinical adolescent population. Research has supported the assumption that girls are more likely to be susceptible to the socialisation effects of DSH, and has suggested that DSH may have become more normalised and less secretive amongst adolescents who engage in self-harming behaviours.

Chapter Four: Maladaptive Schemas

Research has suggested that the combination of both environmental factors and internal characteristics create a vulnerability for engaging in DSH (Fliege et al., 2009; Gratz, 2003; Nock, 2009b). When environmental factors such as childhood maltreatment and lack of social supports occur over an extended period of time, an individual can develop negative beliefs about themselves which are detrimental to their functioning and can result in clinical mental health problems (van der Kolk, 1996; Young, Klosko, & Weishaar, 2003). While DSH has most commonly been linked with BPD, the literature suggests that DSH may have become a socialised behaviour among adolescents who may not fit the usual clinical BPD profile (Heilbron & Prinstein, 2008). The exploration of internal schemas has been found to be useful in differentiating clinical from non-clinical populations (Van Vlierberghe, Braet, Bosmans, Rosseel, & Bogels, 2010) and may provide further insight into motivations for DSH.

What is a Schema?

In psychology, a schema is a cognitive framework for organising, interpreting and understanding information. Schemas are useful in that they can reduce the amount of effort required to make sense of new concepts and experiences. However, they can also be problematic in that one tends to focus on and acquire information that confirms an existing belief while rejecting that information which contradicts one's beliefs. Thus, it can be difficult to acquire new knowledge or understanding as when one is faced with incongruous information, there can be a tendency to search for an alternative explanation which holds with the existing belief (Cherry, 2011).

History of Schemas

Although first introduced by British psychologist Frederick Bartlett in his theory of remembering (Bartlett, 1932), the origin of the word "schema" is most commonly associated with developmental psychologist and philosopher Jean Piaget. In his theory of child development, Piaget described three intellectual structures: behavioural (patterns of behaviour that interpret and respond to the environment), symbolic (mental codes which represent the external world) and operational (mental processes executed on thoughts; Piaget, 1983). Using these intellectual structures, a schema is acquired or modified through assimilation (taking new information into an existing schema) and accommodation (alteration of a schema to accommodate new information). Thus schemas represent not only knowledge, but also the process of acquiring that knowledge.

Schemas are common to a number of psychological models and therapies including schema therapy, cognitive-behaviour therapy (CBT; where they are called core beliefs), attachment theory (internal working models), psychodynamic therapies, emotion-focused therapy (emotion schemes) and person schema therapy (person schemas; Young et al., 2003).

Maladaptive Schemas

While schemas in and of themselves are neither good nor bad, Young et al. (2003) proposed a structure of negative schemas which have a detrimental effect on an individual. This came about from the realisation that some clients with personality disorders and/or those with deeply ingrained beliefs about themselves failed to respond to CBT. While CBT has been shown to have marked success in the treatment of Axis I disorders, many people with Axis II disorders or chronic conditions either fail to make

progress or relapse once treatment has terminated. Many people with personality disorders do not have a specific "problem" that can be targeted, but rather a general sense that life is not right or that they are empty (Young et al., 2003).

Young and colleagues (Young et al., 2003) define an early maladaptive schema as "a broad, pervasive theme or pattern comprised of memories, emotions, cognitions, and bodily sensations regarding oneself and one's relationships with others developed during childhood or adolescence[,] elaborated throughout one's lifetime, and dysfunctional to a significant degree" (p. 7).

Maladaptive schemas are self-defeating and repetitive throughout life and, once entrenched as part of the self-concept, are extremely intractable and difficult to change. Young and colleagues (Young et al., 2003) propose that from a young age, individuals develop maladaptive schemas based on the interaction between the child's temperament and harmful experiences with parents, siblings and peers. These early experiences may include: toxic frustration of needs (the child is not provided with sufficient fundamental requirements such as love or stability); traumatisation or victimisation (the child is harmed or victimised, becoming vulnerable to abuse and mistrustful of others); overindulgence (the child is provided with too much of something without limits which may result in a failure to develop autonomy or an appreciation of limits); and selective internalisation or identification with significant others (the child takes on the thoughts, feelings or behaviours of a parent and internalises them as their own). Two children experiencing the same toxic event may develop different maladaptive schemas based on their temperament and how they choose to respond to the situation. Many of these early experiences are similar to those proposed as risk factors for DSH (Adrian, 2010; Fliege et al., 2009; Nock, 2009b).

Schema domains are broad categories of maladaptive schemas which refer to the developmental needs which must be met in order for the child to develop in a healthy fashion. The unhealthy schema domains develop when the child has an expectation that these needs will not be met. Young (1999) proposed five schema domains (Disconnection and Rejection, Impaired Autonomy and Performance, Impaired Limits, Other-Directedness, and Overvigiliance and Inhibition) which incorporate 18 associated maladaptive schemas. Table 1 provides a description of the domains and associated schemas.

Coping Styles and Coping Responses

When activated, maladaptive schemas pose a threat to the individual in that they generally elicit intense emotional reactions. As with the fight-or-flight response, the individual may choose the coping style of overcompensation (fight), avoidance (flight) or surrender (freeze) when faced with the threat of the schema in order to reduce the distressing fallout (Young et al., 2003).

A schema is a belief, not a behaviour. However, often an individual will engage in a maladaptive behaviour (coping response) consistent with their coping style in response to a maladaptive schema. For example, a person may engage in DSH as a coping response in an attempt to avoid emotional overwhelm. When these self-defeating patterns of behaviour, which may once have been adaptive for the child, are repeated in adulthood, behavioural maintenance of the schema occurs.

Table 1.
Description of Young's (1999) Schema Domains and Associated Maladaptive Schemas

Domains/*Schemas*	**Domain/Schema Definition**
A. Disconnection and Rejection	This schema domain refers to the belief that the child's needs will not be met dependably in relation to "security, safety, stability, nurturance, empathy, sharing of feelings, acceptance, and respect" (p. 12). Typically, the familial environment is aloof, volatile, abusive, erratic and rejecting.
Abandonment/Instability	This schema refers to the child's belief that emotional support and protection will not be predictable or ongoing, and that caregivers will be unavailable or will abandon the child.
Mistrust/Abuse	The child with this schema expects to be cheated, humiliated or abused, either intentionally or through neglect.
Emotional Deprivation	The Emotional Deprivation schema refers to the child's anticipation that one's emotional needs for nurturance, empathy and protection will not be met.
Defectiveness/Shame	Children with this schema consider themselves unlovable, bad, unwanted or invalid. Their perceived defects may be internal or external.
Social Isolation/Alienation	This schema refers to children who consider themselves different to everyone else and who do not feel they belong anywhere.
B. Impaired Autonomy and Performance	Within this domain, the need to separate and function independently is hindered by the child's beliefs regarding the ability to perform adequately on one's own. Familial environments tend to be overprotective, demoralising and enmeshed.
Dependence/Incompetence	Children exhibiting this schema believe that without substantial help from others they would be unable to adequately cope with ordinary tasks.
Vulnerability to Harm or Illness	This schema refers to the belief in impending disaster, typically of an emotional, medical or environmental nature.
Enmeshment/Undeveloped Self	Children with this schema fail to separate from their parents and consider either themselves or their parents would flounder without excessive closeness. They may fail to develop a separate identity.
Failure	This refers to the belief that one has, or will, fail in multiple areas of one's life and frequently results in the belief that one is stupid or inept.
C. Impaired Limits	When the child does not have adequate limits enforced or does not learn to set goals and to respect others, problems develop in their ability to relate to others in a respectful and co-operative manner, and to achieve personal goals. A familial environment of indulgence, permissiveness and entitlement is likely, often lacking supervision and direction.

cont.

Domains/*Schemas*	Domain/Schema Definition
Entitlement/Grandiosity	This schema involves beliefs about superiority or entitlement. Those exhibiting this schema are likely to ignore the rights of others, to have a drive for control over others or to expect they should be able to do as they please.
Insufficient Self-Control/ Self-Discipline	Children developing this schema fail to achieve their goals due to an inability to employ the required self-control, to tolerate frustration or to refrain from extreme expression of emotions and urges.
D. Other-Directedness	This schema domain sees the child subjugating their own needs and concentrating on the needs of others in an attempt to gain love and acceptance. Families of children exhibiting this schema tend to place greater value on their own needs, as well as on social desirability, than on the child's feelings.
Subjugation	The belief that one's own opinions, feelings and needs are irrelevant leads the child with this schema to feel they must subjugate their needs/emotions in favour of others. This often results in suppressed anger which may be exhibited in such forms as explosions of temper, substance abuse or acting out.
Self-Sacrifice	This schema sees the individual voluntarily putting aside their own needs and attempting to meet the needs of others in order to maintain a relationship, to avoid feeling selfish or to avoid inflicting pain on others.
Approval-Seeking/ Recognition-Seeking	Children who develop this schema need to seek attention and a sense of belonging in order to maintain their self-esteem which is often based on social status and appearance. This may result in being overly vulnerable to feelings of rejection.
E. Overvigilance and Inhibition	Strict internal rules about required behaviour and containment of spontaneity are evident in this schema domain. Familial environments tend to be strict and demanding, often negative and distrustful, and intolerant of mistakes.
Negativity/Pessimism	This schema is characterised by the individual concentrating on the negative, and the expectation that things will go terribly wrong, while disregarding the positive. Children exhibiting this schema tend to worry constantly, find it difficult to make decisions and fear making mistakes.
Emotional Inhibition	A fear of disapproval or of loss of control may lead a child to extreme reticence regarding emotional expression or to stifled spontaneity. Typically, this is evidenced in the inhibition of anger and sanguine urges, a reluctance to display vulnerability or a focus on rationality.
Unrelenting Standards/ Hypercriticalness	This schema involves excessively high internal standards that must be met in order to prevent censure. This may be exhibited in perfectionism, high moral or ethical standards, or a feeling of pressure to use time as efficiently as possible.
Punitiveness	A belief that those who make mistakes or who do not meet one's standards, must be punished is central to this schema. A person with this schema is likely to be harsh, intolerant and impatient with both self and others.

Assessment of Schemas

In order to identify and assess an individual's relevant schemas, Young developed a psychological measure called the Young Schema Questionnaire (YSQ) which has undergone a number of changes and versions (Young & Brown, 1990). While the earlier version included only 15 maladaptive schemas, the most recent versions of the YSQ (Young, 2005a, 2005b) incorporate the full 18 schemas in a 232-item long version (YSQ-L3) and a 90-item short version (YSQ-S3). These questionnaires have been translated into a number of languages including Turkish, Romanian, Dutch and Korean, and have been used to explore schemas in both clinical (referred) and non-clinical (community) populations.

Maladaptive Schemas and Psychopathology

A number of studies have explored the utility of schemas in identifying psychopathology in participants in order to target focus areas for therapy. However, study results may not all be directly comparable as a number of different versions of the YSQ were utilised.

In a community and clinical sample of adolescents using the short form of the earlier YSQ, Van Vlierberghe, Braet, Bosmans, Rosseel and Bogels (2010) investigated the explanatory value of Young's schemas in relation to psychopathology, specifically the clinical disorders of depression, anxiety and disruptive disorders. They found that the YSQ was able to differentiate referred from non-referred participants, with the former showing higher levels of maladaptive schemas than their non-clinical counterparts. Furthermore, cognitive content specificity was supported in respect of particular psychopathology. Depression was positively associated with the maladaptive schemas of Failure, Defectiveness/Shame, Dependence/Incompetence and Emotional

Deprivation. While anxiety was positively correlated with Vulnerability to Harm and Unrelenting Standards, and negatively correlated with Emotional Deprivation and Insufficient Self-Control, a number of other schemas were also predictive of anxiety disorders, perhaps due to the broad inclusion criteria of disorders subsumed by the anxiety disorder category. Of the externalising disorders, conduct disorder was associated with Entitlement/Grandiosity and also with Unrelenting Standards and Failure, while oppositional defiant disorder was positively associated with Defectiveness/Shame and negatively associated with Unrelenting Standards.

A study by Muris (2006) found somewhat different results in respect of psychopathology in a sample of non-clinical adolescents. In this study, depression was associated with Social Undesirability, Mistrust/Abuse and Unrelenting Standards, anxiety was associated with Emotional Inhibition, Abandonment and Social Isolation/Alienation, and disruptive behaviour was predicted by Dependence/Incompetence, Social Isolation/Alienation and Entitlement/Grandiosity. However, this study used an age-downward modified version of the YSQ which may have changed the underlying structure of the questionnaire.

Using the Turkish version of the YSQ-S3 in a study of high school students, Saritas and Gencoz (2011) found that the maladaptive schema of Unrelenting Standards and the schema domain of Impaired Limits were associated with anger while Disconnection/Rejection, Impaired Autonomy and Otherdirectedness were all associated with anxiety.

Maladaptive Schemas and Personality Disorders

Both schemas and personality disorders are considered to be patterns of beliefs which endure over time, so studies which explore schemas in relation to personality

disorders, in particular BPD which is most commonly associated with DSH, are of special interest. Results have been mixed, with some studies finding evidence for the association of specific schemas to specific personality disorders, and others finding no unique relationships.

Lee, Taylor and Dunn (1999) employed the original version of the YSQ with a clinical population, both outpatient and inpatient, to determine whether differences could be detected between Axis I and Axis II disorders based on their maladaptive schema profiles. Results showed that Axis II patients scored higher than the Axis I group on all schemas with the exception of Subjugation and Vulnerability to Harm. The schemas with the greatest differences between the two groups were those in the Disconnection/Rejection and Impaired Limits domains, perhaps reflecting greater disturbances in primary attachment in those individuals with personality disorders. Lawrence, Allen and Chanen (2011) found similar results, with BPD participants scoring higher on 11 on the 15 schemas in the short form of the YSQ version 2 (YSQ-S2). While those with a diagnosis of BPD most strongly endorsed the schemas of Abandonment and Mistrust/Abuse, results did not support a consistent schema profile for BPD participants.

The short-form of Young's Schema Questionnaire (YSQ-S) was used by Reeves and Taylor (2007) to examine relationships between core beliefs and personality disorders in a non-clinical sample. They found that a number of YSQ scales were uniquely associated with specific personality disorders. Not surprisingly, Unrelenting Standards was associated with obsessive-compulsive personality disorder and Mistrust/Abuse was associated with paranoid personality disorder. Emotional Inhibition was positively related to schizoid personality disorder but negatively associated with histrionic personality disorder. While DSH was not examined directly, this study found

BPD to be uniquely associated with the early maladaptive schema of Abandonment. It was also positively, but not uniquely, associated with Social Isolation and negatively, but not uniquely, related to Enmeshment. In a psychiatric inpatient sample, Nordahl and colleagues also found BPD traits to be positively associated with schemas related to disconnection and defectiveness (Nordahl et al., 2005). Similarly, a schema-focused psychotherapy trial by Farrell, Shaw and Webber (2009) found that the schemas of Defectiveness/Shame, Abandonment and Mistrust/Abuse were particular to BPD participants.

Maladaptive Schemas and DSH

Only one study to date has examined early maladaptive schemas specifically in those who deliberately self-harm (Castille et al., 2007). Both clinical and non-clinical participants aged 15 to 35 years (mean age 19) were administered the Young Schema Questionnaire-Long Form, 2nd edition (YSQ-L2; Young, 1999). This version of the YSQ contains only 16 of the 18 early maladaptive schemas included in more recent versions of the YSQ. No significant differences in early maladaptive schemas were found that differentiated current from past self-harmers. However, self-harmers could be differentiated from non-self-harmers with the former having higher mean scores on the four schemas of Emotional Deprivation, Mistrust/Abuse, Social Isolation/Alienation and Insufficient Self-Control/Self-Discipline. Repetitive self-harmers also had significantly higher mean scores than non-self-harmers on the schemas of Emotional Deprivation, Social Isolation/Alienation, Defectiveness/Shame and Insufficient Self-Control/Self-Discipline. No differences were found between one-time self-harmers and non-self-harmers, or between one-time self-harmers and repetitive self-harmers. All of

these schemas, with the exception of Insufficient Self-Control/Self-Discipline, fall within the Disconnection and Rejection domain.

A more recent study by Dutra and colleagues (Dutra, Callahan, Forman, Mendelsohn, & Herman, 2008) examined early maladaptive schemas in a traumatised clinical population aged 20 to 62 years (mean age 38.3) in relation to suicide risk. Suicidal ideation and a suicide plan were significantly correlated with the schemas of Social Isolation/Alienation, Failure and Defectiveness/Shame. While results differentiated between suicidal and self-harming behaviours, in contrast to the study by Castille et al. (2007), self-harming behaviours were not significantly correlated with any of the schemas.

Dench, Murray and Waller (2005) used the short form of the original YSQ to investigate core beliefs, impulsivity and dissociation in a clinical inpatient adult population (mean age 37.2 for women and 33.8 for men). While looking at impulsivity in general, rather than at DSH specifically, their study found that, among females only, DSH was positively associated with the maladaptive schema of Abandonment. Further analysis revealed that the relationship between self-harm and feelings of abandonment was mediated by dissociation. When the mediation effect of dissociation was allowed for, the relationship between abandonment beliefs and DSH was no longer significant.

Given that emotional numbing and dissociation are frequently cited as being consistent with BPD, it may be that those self-harmers who score lower in levels of abandonment are less likely to fit the BPD profile and may show a different pattern of schemas and motivations for their harming behaviours.

Chapter Summary

A schema is a mental framework for organising and making sense of the world. Schemas are acquired or modified by means of assimilation and accommodation and are common to many psychological models. Maladaptive schemas are entrenched, negative and dysfunctional beliefs about oneself which are acquired in childhood through an interplay between temperament and experiences and are maintained through reinforcement. They are resistant to change and, when activated, they elicit intense emotional arousal. Coping styles of overcompensation, avoidance or surrender guide coping responses which are often maladaptive behaviours, for example DSH.

Young proposed a taxonomy of schemas and domains which, most recently, include 18 schemas within 5 domains and which have been incorporated into the YSQ. Studies exploring psychopathology in clinical and community samples have found that the YSQ is effective at differentiating clinical from non-clinical participants, as well as those with Axis I versus Axis II disorders. Although results of studies exploring schemas in personality disorders have been mixed, BPD has been uniquely and positively associated with the maladaptive schema of Abandonment, and has also been positively associated with Social Isolation and negatively associated with Enmeshment.

Studies examining maladaptive schemas specifically in relation to DSH are few and have used differing versions of the YSQ, making them somewhat difficult to compare effectively. However, schemas within the Disconnection/Rejection domain have been most consistently associated with DSH. Risk factors for DSH share common characteristics to factors contributing to the development of maladaptive schemas.

Chapter Five: The Current Study

Summary

A review of the literature about DSH suggests that one of the main reasons adolescents engage in self-harm is to achieve emotional relief. However, it has also been suggested that some individuals who engage in self-harm do so not only for emotional relief but also for socially motivated reasons. There is a dearth of literature exploring this aspect of DSH, perhaps due to the fact that researchers are reluctant to appear to belittle the emotional distress of those who self-harm for emotional reasons or to invalidate the considerable efforts of those who have attempted to gain a greater understanding of DSH. That there are those who may endorse a social function of DSH in no way negates the wealth of knowledge that has been accumulated. Instead, it cries out for further exploration.

Research suggests that while peers may influence a behaviour, there must also be a susceptibility to influence. The reported increase in prevalence of DSH begs the question of whether social influences have contributed to this increase. and whether those who engage in socially-motivated DSH are more susceptible to peer influence than their counterparts. As the rise in numbers appears to be in community settings, rather than purely clinical settings, one must consider the possibility that there is a faction of self-harmers who might not fit the more traditionally endorsed psychopathology, in particular BPD, or indeed suffer from any serious mental health difficulties. Do these individuals, in fact, differ at all from “normal” adolescents, or from other self-harmers, in their internal schemas?

A number of research studies have supported the notion that those who engage in DSH for the traditionally accepted reasons are likely to have had severe difficulties in

their early lives, resulting in problematic relationships with significant others, typically parents. Studies have also indicated that nominal parental input leaves an adolescent more susceptible to peer influence. Therefore, it would be of interest to explore the relationships between parental and peer influence and a) social reasons for DSH, and b) reported psychological difficulties.

The well-documented social contagion of suicide amongst adolescents has led public organisations to minimise the discussion of suicide in the media in order to curtail the likelihood of copy-cat behaviours for vulnerable youth. There is the potential that a similar effect has been occurring with DSH, especially given the high visibility of the Emo culture and the availability of internet forums on DSH. Adolescents are particularly prolific users of the internet (Facebook, Twitter, You Tube, etc) where the social contagion of trends can be meteoric. The regular and repeated exposure of teens to DSH-related content in the media and on the internet, as well as discussions amongst self-harmers at school, may well have served to normalise DSH among adolescent culture, thus increasing their willingness to engage in this behaviour.

Aims of the Study

There were a number of aims for this study. The first was to explore how adolescent self-harmers differ from non-self-harmers in terms of schemas, psychopathology and social influence, as well as in their normalisation of DSH. The second aim was to investigate the concept of socially-motivated self-harm in order to understand how these adolescents differ from those who harm for the more traditional reasons. A further area of interest in this research was to compare self-harmers who have no apparent psychopathology with those experiencing psychological difficulties, in respect of underlying schemas, as well as peer and parental influences, normalising and

secrecy around DSH. Finally, the study aimed to explore how those who self-identify as popular differ from their peers in terms of social influence and normalising of DSH.

Research Questions

1. How do DSH and non-DSH girls differ in terms of maladaptive schemas and psychological problems?
2. How normalised has DSH become among adolescent girls and what factors relate to the level of normalisation?
3. Does the level of secrecy around DSH differ between subgroups of self-harmers?
4. a) How do levels of peer and parent influence differ between self-harmers and non-self-harmers, and between subgroups of self-harmers?
   b) Is there a relationship between peer/parent influence and levels of difficulties experienced by adolescent girls?
5. How do girls who endorse social reasons for DSH differ from non-socially motivated self-harmers?
6. Do girls who identify as being popular differ from other adolescents in terms of schemas, strengths and difficulties, and self-harming behaviours?
7. In what way do self-harmers with BPD traits differ from those without BPD traits in terms of self-harming behaviours and schemas?

Study Design

Given that the prevalence of DSH is far higher in girls than in boys and is most common in adolescence, it was decided to conduct the study with adolescent girls only. In order to make comparisons between those who do or do not engage in DSH, it was necessary to include both self-harming and non-self-harming participants.

According to information from the 2006 census (Statistics New Zealand, 2006) the population of adolescent girls in New Zealand is approximately 301,400. A power analysis was performed based on this estimate, using a 95% confidence level and a confidence interval of 5, the result of which indicated an ideal sample size of 384. As estimates of DSH in adolescent girls are approximately 13%, it was expected that the majority of students who participated in the study would not be self-harmers but that at least 50 would be girls who engage in DSH.

A large number of schools needed to be approached and these were selected in order to cover: a range of socio-economic and ethnic backgrounds; schools of different sizes; private, religious and public schools; and single-sex and co-ed schools. Schools in central, north and west Auckland were targeted.

The study took the form of an anonymous questionnaire which was administered to participants in their schools. Schools were offered the choice of a web-based questionnaire which would be completed in the school computer suite, or a paper-based questionnaire which could be administered in a classroom. All schools opted to use the paper-based questionnaire.

In order to minimise any possible social contagion effects, the study was designed in such a way as to include no detailed information regarding DSH and to limit the amount of times DSH was mentioned. Nonetheless, there was the possibility that introducing a study such as this may have overwhelmed the resources of the guidance counsellor. Therefore, it was decided to provide the school with support in the form of guidelines for staff. In addition, each guidance counsellor was advised that should the numbers of students engaging in DSH in their school be disproportionately high, the researcher would contact the counsellor and offer to help develop a programme to address this.

Ethics

There are a number of ethical issues which were relevant to this study. The most vital concerned the issue of possible harm. The sensitive nature of the questions regarding DSH could have been distressing for some students, and some participants who used DSH to manage their emotions may have felt triggered by any mention of DSH. Therefore, it was essential that all participants be provided with written support and information to counter any possible negative response to the study questions. It was also vital to have the school guidance counsellor both involved in the study and willing to provide support to participants should it be needed.

As a number of participants were likely to be aged under 16, the age where an individual is able to give informed consent, the issue of parental consent had to be addressed. Consent could be obtained through either active (opt-in) or passive (opt-out) consent. Active consent required that parents intentionally notify the school if they gave permission for their child to take part in the study. Passive consent assumed that parents gave their consent unless they specifically chose to opt out of participation. Requiring active consent often limits the number of participants and may result in a biased sample, most typically from families who are more highly educated and of higher socio-economic status (Hawton et al., 2006). For this reason, it was decided that the opt-out method was the preferred method of obtaining parental consent. However, despite discussion of the advantages of using the opt-out method of consent, only two of the schools that agreed to participate were willing to use the opt-out method. The remaining schools stipulated that parents must actively consent to their child's participation. Consequently, it was deemed necessary to post the information sheet/consent form to parents, rather than send them home with the students, in order to ensure that all parents had received the information. To increase the possibility that parents would attend to the

consent immediately, rather than intending to attend to it at a later date and then forgetting about it, it was decided to have a short time-frame for return of the consent forms to the school.

Another issue was that of deception. The study was presented as a survey about how teenagers think and feel about themselves and the things in their lives, rather than a survey about DSH. It was considered preferable not to focus on DSH in the introduction for two reasons. Firstly, given the hypothesis that there may be a social contagion effect of DSH which may be exacerbated by discussions around the topic, limiting the number of references to DSH was the preferred option. Only those participants actually engaging in DSH were presented with the more in-depth questions regarding DSH in order to prevent giving anyone ideas or triggering self-harming behaviour. Secondly, if parents had been informed that the study included a section about DSH and were not aware that their child was self-harming, they may not have considered that it was relevant to their child and therefore may have decided that they did not wish their child to participate. However, given the very personal nature of DSH, it was possible that some individuals would not wish to inform their parents that they were engaging in DSH but would still wish to participate in the study. Often it is these children who are at most risk and who would benefit from the information supplied on completion of the study.

This research was approved by the Massey University Human Ethics Committee: Northern, application number MUHECN 09/041.

Chapter Six: Method

Participants

Participants were 391 adolescent girls from five schools in the greater Auckland area. Their ages ranged from 13 to 16 years with a mean age of 14.3 (*SD* = 0.71). Of the 391 participants, 88 (22.5%) had engaged in DSH while 303 (77.5%) had never self-harmed. Four of the 88 DSH participants indicated that their self-harm had been a suicide attempt so data from these participants were excluded.

The participating schools were of medium-to-large size and comprised both public and private, and single-sex and co-educational schools. Although a number of schools from differing socio-economic areas were approached, the five schools who agreed to participate were at the higher end of the socio-economic scale. One school had a decile rating of 9 while the remaining four schools had a decile rating of 10. All schools had between 55% and 80% pakeha/European pupils, 2-11% Maori, 0.5-6% Pacific Island, 5-41% Asian, 0.5-15% other nationality and 3-15% international students.

Procedure

The school guidance counsellors at 20 high schools were approached via email (see Appendix A) with regard to students participating in the study. The principal and guidance counsellor of each school that expressed an interest in participation were then sent an information pack which included: the questionnaire (see Appendix B) together with a school information sheet and consent form, the participant information/consent form, and the parental information/consent form (see Appendix C), and the support resource sheets for participants (see Appendix D) and parents (Oxfordshire Adolescent Self-Harm Forum, 2006). Approximately one week later, the researcher visited each

school to discuss the study. Following this discussion, five schools, all from the North Auckland area, agreed to participate in the study. All schools elected to use the paper-based questionnaire.

While it was hoped that all female students at the school would be allowed to participate, four of the five schools were reluctant to disrupt the senior students prior to exam preparation. At these schools, only girls in Years 9 and 10 were offered the chance to participate. The remaining school offered the study to all female students in Years 9 to 13.

Each school provided a set of address labels for parents of the students so that a letter could be sent outlining the study and requesting permission for the student to participate. The permission slip for the opt-in schools required that the form be signed by both the parent and student and be returned to the school guidance counsellor within a week. For the opt-out schools, parents who did not want their child to participate needed to return the form to the guidance counsellor by a specified date prior to the study being conducted.

Between the time of the parental letter being sent and the day of data collection, the guidance counsellor in each school advised all eligible students of the time and place that the study would take place. Where large numbers of students were involved (the two opt-out schools) the study was conducted over 1-2 days and students participated in their class or year groups.

On the day of the data collection, the guidance counsellor, researcher and two assistants greeted the participants and gave them an information sheet. The study was introduced by the researcher as a survey about how teenagers think and feel about themselves and things in their lives. Students were advised that participation was both voluntary and anonymous, and while they were encouraged to complete the entire

questionnaire, they were informed that they may omit any questions that they did not wish to answer. Each participant was then given the questionnaire, along with a lollipop to suck on while completing the form. Students were asked to space themselves out around the room so that others could not see what they wrote. Participants who had difficulty reading any of the questions or who did not understand a word were able to ask for help.

On completion, the participant returned their questionnaire face-down into one of the boxes at the front of the room. As each participant returned their questionnaire they were advised individually that they could contact either the guidance counsellor or the researcher if they wished to discuss any issues that had been raised by the content of the questionnaire. They were also given a support resource sheet which provided resources that they could access if they had any concerns or questions after the study. This included a list of suggestions and techniques for coping with difficult feelings, as well as phone numbers and websites which could offer support and information about a variety of issues that commonly affect young people.

At the conclusion of data collection, students were thanked for their participation and the guidance counsellor at each school was given a staff support booklet (Oxfordshire Adolescent Self-Harm Forum, 2006) which gave suggestions as to how teachers could deal with DSH in the school setting.

The Questionnaire

The questionnaire was made up of five sections. Section A consisted of demographic questions regarding age, school, number of siblings, number of close relationships/friends, living situation and groups with which the student identified (e.g. EMO, gangster, computer nerd, sport, popular).

Section B comprised a brief screen for psychopathology, the Strengths and Difficulties Questionnaire Self-Report Version (SDQ-SR). This scale is generally administered in conjunction with the Parent Report (SDQ-P) and Teacher Report (SDQ-T) but has been used as a stand-alone screening instrument. Designed for children aged 11-17 years, the SDQ-SR consists of 25 items which provide a Total Difficulties Score, and contribute to 5 subscales: Emotional Symptoms Scale, Conduct Problems Scale, Hyperactivity Scale, Peer Problems Scale and Prosocial Scale. Items are phrased as statements about behaviours and feelings that the participant may have experienced over the previous 6 months. Participants are asked to rate how true these statements are using a 3-point Likert scale (0 = "Not true"; 1 = "Somewhat true"; 2 = "Certainly true"). An Impact Supplement consists of a further 5 questions which assess the impact of any self-perceived emotional, concentration or behaviour difficulties. Participants are asked to rate how much the reported difficulties have distressed them or interfered with the lives of themselves or others ("Not at all", "Only a little", "Quite a lot", "A great deal"). The SDQ-SR has been shown to discriminate satisfactorily between community and clinical samples (Goodman, Meltzer, & Bailey, 1998) and to provide comparable diagnoses to those of clinicians with levels of agreement ranging from 0.39 to 0.56 (Mathai, Anderson, & Bourne, 2004). Reliability is satisfactory with a mean internal consistency score of 0.73, cross-informant correlation of 0.34, and test-retest reliability after 4-6 months of 0.62 (Goodman, 2001).

The final question of Section B asked whether the participant had ever deliberately self-harmed. This question was placed strategically at the end of Section B so that if the participant answered "No" they were directed immediately to Section D, thus avoiding having to view the DSH questions in Section C. The original wording of this question was "Have you ever physically harmed yourself on purpose without

wanting to die." However, two of the schools insisted that the words "without wanting to die" be removed if they were to continue with participation. This posed a dilemma as excluding suicidal intent was an essential aspect of the research. It was decided to make the change requested for all schools, in order to keep the questionnaires consistent, but to identify suicidal intent from the answers provided in Section C. Four participants indicated, either on Question C1 ("What did you do to hurt yourself") or on the Reasons for Self-Harm scale, that their intention had been to die and were thus excluded from analyses.

Section C looked at the participant's experience of DSH and was completed only by those participants who had indicated in Section B that they had self-harmed. Based loosely on other similar SH inventories it explored types of DSH, motivation for DSH, frequency, duration of DSH, attitudes to DSH (self and others) and secrecy surrounding DSH. It also asked whether participants knew others who self-harmed and, if so, the number of others and their relationship to the participant, as well as whether the participant had ever harmed with, or in front of, another person. From the information provided by the participant, a severity index was calculated based on the number of episodes and the frequency of DSH, whether medical attention had been required, whether the participant still harmed, the age the participant first harmed and the duration of harming.

Unlike other inventories, the DSH section of this questionnaire did not provide a list of types of DSH for participants to choose from. Given the age of the participants and the possibility that listing types of DSH may have given vulnerable participants ideas for DSH, it was deemed more appropriate to have participants self-report the type of DSH in which they had engaged and to categorise reported acts during data collation. The questions regarding reasons for DSH included those in the Functional Assessment

of Self-Mutilation Scale (FASM; Lloyd, Kelley, & Hope, 1997) as well as an additional five items related to social influence. Using a 4-point Likert scale, participants were asked to indicate how often they had self-harmed for each of the stated reasons (0 =”Never”; 1 = “Rarely”; 2 = “Sometimes”; 3 = “Often”). They were also asked to indicate the main reason they had first self-harmed. While the FASM was not used in its entirety and was modified for the current study, previous studies have used it in both clinical and community samples where it has been shown to have acceptable psychometric properties with alpha reliability co-efficients ranging from 0.62 to 0.85 (Lloyd et al., 1997; Nock & Prinstein, 2004). It has been proposed that the reasons for DSH in the original FASM load onto four factors, i.e. automatic positive reinforcement, automatic negative reinforcement, social positive reinforcement and social negative reinforcement (Nock & Prinstein, 2004).

Section D of the questionnaire investigated attitudes to, and normalising of, DSH by both self-harmers and non-self-harmers, and also explored levels of peer and parental influence. The first half of this section consisted of the normalising scale which asked participants to rate on a 6-point Likert scale (0 = “Totally disagree”, 5 = “Totally agree”) their level of agreement with nine statements about DSH and people who engage in DSH. The second half of Section D used the same Likert scale for participants to rate their level of agreement with statements about group belonging, as well as parental and peer influence. This scale was based on the Parent and Peer Influence Scale (Werner-Wilson & Arbel, 2000) but included only a subset of the questions, omitting those items related to political beliefs and sexuality. Additional items, including some based on the Resistance to Peer Influence Scale (Willner, 2000), were included which explored levels of peer pressure.

The final section of the questionnaire, Section E, comprised the Young Schema Questionnaire-Short Form Version 3 (YSQ-S3; Young, 2005a). The YSQ-S3 is a 90-item self-report that assesses 18 early maladaptive schemas belonging to five schema domains proposed by Young. Each item is expressed as a statement of belief about one's self and relationship to others that is rated on a 6-point Likert scale from 1 ("completely untrue of me") to 6 ("describes me perfectly"). While there appears to have been no studies to date investigating the psychometric properties of the English version of the YSQ-S3, a study using the Romanian version of the YSQ-S3 showed Cronbach coefficients between 0.68 and 0.96 (Trip, 2006). Saritas and Gencoz (2011) examined the higher order factor structure of the Turkish version of the YSQ-S3 administered to adolescents and found support for only three schema domains with internal consistency scores of .79 to .81. Several studies have examined the factor structure and internal consistency of earlier versions of the YSQ. Results have shown high internal consistency and good discriminability between clinical and non-clinical populations, although no consistent factor structure has been supported (Baranoff, Oei, Cho, & Kwon, 2006; Mauchand, Lachenal-Chevallet, & Cottraux, 2011; Oei & Baranoff, 2007; Rijkeboer, van den Bergh, & van den Bout, 2005; Specht, 2005; Van Vlierberghe et al., 2010).

Analyses

The initial analyses planned were to assess the soundness of the psychological measures used in the questionnaire. Cronbach's alpha reliability analyses were conducted on the SDQ and YSQ, as well as on the Reasons for DSH, Normalising and Social Influence scales. Confirmatory factor analyses using AMOS 17.0 were performed on the SDQ and YSQ in order to assess the fit of the documented factor

structures. The Reasons for DSH scale, while based on the FASM, included a number of new items, therefore an exploratory factor analysis was conducted. Exploratory factor analyses were also performed on the Normalising and Social Influence scales.

It was anticipated that the SDQ and YSQ scales would elicit a number of similarities so correlations were conducted between these scales. Further correlations were also carried out to identify the relationships between the problems scales (SDQ and YSQ), with the Normalising and Social Influence scales, and the DSH-specific scales of Secrecy, Severity, and Reasons for DSH.

In order to compare DSH and non-DSH participants, ANOVAs were carried out on the SDQ and YSQ scales, as well as on the Normalising and Social Influence scales. Chi-square analyses were also used to determine whether any differences existed in participants' identification with specific groups.

As the SDQ has been used to determine "caseness" (*Scoring the self-report Strengths and Difficulties Questionnaire*, 2009), it was planned to compare those DSH participants who would be termed "normal" or "Low Problem", according to SDQ ratings, with non-self-harmers. The aim of this was to see how participants without a mental health problem, but who still self-harmed, compared to non-self-harmers. DSH participants with "Normal" ratings on the SDQ Total Problems and SDQ Impact scales were categorised as "Low Problem" and the remaining participants "High Problem". ANOVAs were performed comparing: a) the Low Problem DSH group with all non-DSH participants; b) the Low Problem DSH group with Low Problem non-DSH participants; and c) the Low Problem DSH group with the remaining High Problem self-harmers, on the measures of YSQ, Normalising and Social Influence.

As BPD is most often associated with DSH, of interest were any differences between participants who scored highly on measures of typical BPD traits, and those

who did not. The DSM-IV criteria of “desperate attempts to avoid abandonment” , as well as “emotional numbness/emptiness” were the two factors used to distinguish these participants. As the schema of Abandonment has been found to be uniquely associated with BPD (Reeves & Taylor, 2007), high scores on the schema of Abandonment, and high scores on the Reasons for DSH scale item “To relieve feeling numb or empty” were used to establish the groups of “Borderline Traits” (BT) and “non-Borderline Traits” (non-BT). ANOVAs were conducted between these groups to identify differences in schemas, normalising and social influence, as well as in secrecy, severity and reasons for DSH. Chi-square analyses on other DSH-specific measures (e.g. harming with/in front of other people, knowing others who self-harm) were also conducted.

In order to investigate the role of social motivations for self-harm, participants were divided into two groups based upon whether the participant had endorsed any social motivation for DSH on the Reasons for Self Harm scale. The groups were labelled “Social” and “non-Social”. Further ANOVAs were conducted to compare the Social and non-Social groups on the SDQ and YSQ scales, as well as on Normalising, Social Influence, Secrecy and Severity of DSH. The DSH-specific measures mentioned above were also compared using Chi-square analyses. These analyses were conducted again with the non-BT group alone in order to determine whether results differed after excluding the BT participants.

Part of the questionnaire asked for the reason participants had harmed on their first episode of DSH. These responses were classified in accordance with the Reasons for DSH subscales, and then Chi-square and ANOVA analyses were performed to determine any differences between participants on DSH-specific measures, Normalising and Social Influence scales, as well as YSQ schemas.

Missing Data

Where scores were missing, totals were computed for the subscales providing at least 75% of the relevant scale had been completed. Those records which still had missing subscale scores were excluded from analyses on a scale-by-scale basis.

Chapter Seven: Results

Descriptive Analyses

Of the total number of participants, 21.7% reported that they had self-harmed while 78.3% had never engaged in DSH. The average age of self-harming and non-self-harming participants was 14.4 (*SD* = 0.63) and 14.3 (*SD* = 0.72), respectively, while the average age that participants began self-harming was 13.15 (*SD* = 1.23) (see Table 2 for demographic descriptive statistics for participants).

Scores on the SDQ fell within the normal range on the Total Difficulties scale for 60.7% of self-harmers and 86% of non-self-harmers with the Impact of Difficulties being in the normal range for 33.3% or self-harmers and 74.6% of non-self-harmers (see Table 3 for full SDQ scale groupings). On the Emotional Difficulties scale, 65.5% of self-harmers and 83.3% of non-self-harmers fell within the normal range, while on the Peer Problems scale scores were in the normal range for 86.9% of self-harmers and 91.3% of non-self-harmers.

Table 2
Demographic Descriptive Statistics for DSH and Non-DSH Participants

	DSH (*n* = 84)		**Non-DSH (*n* = 303)**	
	Mean *(SD)*	**%**	**Mean *(SD)***	**%**
Age	14.4 (*0.63*)		14.3 (*0.72*)	
13		4.8		13.9
14		51.2		46.5
15		41.7		37.6
16		2.4		2.0
No. of siblings	2.1 (*1.8*)		1.8 (*1.42*)	
No. of close friends	8.1 (*6.6*)		7.24 (*7.61*)	
Age first harmed	13.15 (*1.23*)		–	
Living with				
Parents		62.7		73.6
Mum		33.7		22.4
Dad		2.4		2.6
Other		1.2		1.3

Table 3
Percentage of Participants Falling in the Normal, Borderline and Abnormal Ranges on the SDQ

	DSH			Non-DSH		
Subscales	**Normal**	**Borderline**	**Abnormal**	**Normal**	**Borderline**	**Abnormal**
Emotional problems	65.5	11.9	22.6	83.3	8.0	8.7
Conduct problems	64.3	17.9	17.9	84.0	10.0	6.0
Hyperactivity	53.6	22.6	23.8	78.2	8.4	13.4
Peer problems	86.9	10.7	2.4	91.3	7.7	1.0
Prosocial behaviours	88.1	7.1	4.8	90.0	7.0	3.0
Total difficulties	**60.7**	**26.2**	**13.1**	**86.0**	**9.7**	**4.3**
Impact of problems	**33.3**	**19.0**	**47.6**	**74.6**	**9.6**	**15.8**

The most common method of DSH was cutting (65.5%), followed by scratching (10.7%) and hitting/banging (9.5%) (see Table 4). Most self-harmers had harmed 2-5 times (48.8%), while 28.6% had harmed only once, and only 26.2% indicated that they still engaged in self-harming behaviours. The majority of the DSH group indicated that others knew they self-harmed (69%) and that it was usually a friend who knew (56%). Most DSH participants also knew others who harmed (77.4%), most commonly a friend (61.9%) and/or someone else at school (42.9%). Almost a quarter of participants (23.8%) indicated that they had harmed in front of someone else, while 11.9% had harmed together with another person.

The most strongly endorsed reasons for DSH were to feel something – even if it was pain (66.7%), to punish oneself (63.1%), to stop bad feelings (61.9%), to relieve feeling numb or empty (59.5%) and to hurt oneself instead of someone else (51.3%) (see Table 5). Over a third of participants (35.6%) indicated that they had harmed just to see what it was like, although only 4.8% stated that this was the main reason the first time they self-harmed.

Table 4
Self-Harming Details for DSH Participants

	Category	%
Method of DSH*	Cutting	65.5%
	Scratching	10.7%
	Hitting/banging	9.5%
	Overdose of drugs	3.6%
	Burning	2.4%
	Eating disorder	2.4%
	Other	8.3%
	Not specified	14.3%
No. of times harmed	1	28.6%
	2-5	48.8%
	6-10	6.0%
	10+	16.7%
Still harming		26.2%
Frequency of harm	Daily	1.2%
	2-3 × per week	10.7%
	2-3 × per month	16.7%
	2-3 × per year	28.6%
	Less than once a year	20.2%
	Not specified	22.6%
Most recent episode of DSH	Current week	8.3%
	Previous week	4.8%
	Previous month	19.0%
	Previous 6-months	41.7%
	More than a year	22.6%
	Not specified	3.6%
Needed medical attention		8.3%
Seen a counsellor		29.8%
Others know about DSH†	Friends know	56.0%
	Family know	29.8%
	Teacher knows	2.4%
	Counsellor knows	17.9%
Harmed in front of others		23.8%
Harmed with others		11.9%
Know others who harm	1-2 others	29.8%
	3-5 others	34.5%
	6-10 others	8.3%
	10+ others	3.6%
Relationship of other harmers†	Friends	61.9%
	Family	10.7%
	Others at school	42.9%

* Methods of DSH not mutually exclusive – participants could endorse more than one method of self-harm.
† Participants could endorse more than one relationship.

Table 5
*Reasons for DSH**

	Rarely %	**Sometimes %**	**Often %**	**Total Ever %**	**First Reason %**
Feel something – even if pain	23.8	31.0	11.9	**66.7**	6
Punish self	26.2	13.1	23.8	**63.1**	13.1
Stop bad feelings	19.0	26.2	16.7	**61.9**	9.5
Relieve feeling numb/empty	23.8	19.0	16.7	**59.5**	7.1
Hurt self instead of someone else	16.7	17.9	16.7	**51.3**	4.8
Get control of a situation	15.5	15.5	4.8	**35.8**	1.2
See what it was like	21.4	7.1	7.1	**35.6**	4.8
Feel relaxed	23.8	6.0	4.8	**34.6**	
Get a reaction – even if negative	11.9	6.0	2.4	**20.3**	
Avoid school/work/other activities	16.7	2.4	1.2	**20.3**	1.2
Get attention	11.9	7.1	1.2	**20.2**	3.6
Avoid doing something unpleasant	13.3	4.8	0	**18.1**	
Get parents to understand/notice	10.7	4.8	2.4	**17.9**	1.2
Get help	10.7	3.6	2.4	**16.7**	
More attention from parents or friends	7.1	6.0	2.4	**15.5**	
Let others know how desperate	8.3	3.6	2.4	**14.3**	
Prove bravery	11.9	0	2.4	**14.3**	
Avoid being with people	7.1	4.8	1.2	**13.1**	
Something to do when alone	9.5	2.4	0	**11.9**	1.2
Get others to act different/change	7.1	3.6	0	**10.7**	
Because friends do it	4.8	1.2	2.4	**8.4**	2.4
Be like someone you respect	4.8	0	2.4	**7.2**	
Make others angry	3.6	1.2	2.4	**7.2**	
Be different from everyone else	4.8	2.4	0	**7.2**	
Avoid punishment/consequences	3.6	2.4	0	**6.0**	
Feel more part of group	3.6	1.2	0	**4.8**	
Something to do when with others	0	1.2	0	**1.2**	
Other	0	4.8	8.3	**13.1**	32.1
Not Specified					11.9

* Reasons for DSH not mutually exclusive – participants could endorse more than one reason for self-harming.

Scores on the Secrecy scale indicated that on average, most DSH participants tended towards secrecy regarding their self-harming behaviours. The mean score (with 20 being the highest level of secrecy) was 15.03 (*SD* = 4.18).

Psychological Measures

Reliability analyses were computed for the SDQ and YSQ, as well as for the Reasons for DSH, Normalising, and Social Influence scales. All scales showed acceptable to excellent reliability with Cronbach's α of .65 for the SDQ, .96 for the YSQ, .77 for the Reasons for DSH scale, .58 for the Normalising scale, and .83 for the Social Influence scale.

Reasons for DSH. A principal components exploratory factor analysis was conducted on the Reasons for DSH scale. This analysis suggested that the Reasons for DSH scale loaded onto four factors. A maximum likelihood analysis using Varimax rotation was then performed based on the suggested four factors which were identified as Attention/Communication, Emotional Relief, Social and Avoidance. Two items ("Make others angry" and "Feel more part of group") which failed to load exclusively onto any one factor, and four items ("Get help ", "Something to do when with others", "Feel relaxed" and "Be different from everyone else") with factor loadings less than 0.4, were omitted from the subscales (see Table 6).

SDQ and YSQ. As both the SDQ and YSQ are well-established standardised measures, confirmatory factor analyses using AMOS 17 were conducted in order to assess the fit of the documented scales. Figure 1 shows the five-factor first order model for the SDQ with factor loadings and correlation coefficients. A second order model with 18 subscales loading onto five correlated domains was examined for the YSQ (see Figure 2). Factor loadings for the YSQ are shown in Appendix Table E1.

Table 6
Exploratory Factor Structure of Reasons for DSH Scale

	1	2	3	4
Attention/Communication				
Get attention	**.921**	-.011	.102	.125
Get a reaction – even if negative	**.860**	-.040	.101	.202
More attention from parents/friends	**.790**	-.001	-.019	.261
Get parents to understand/notice	**.726**	.029	-.004	.221
Let others know how desperate	**.686**	.061	.073	-.167
Get others to act different/change	**.598**	.227	.094	.093
Get help*	**.381**	.157	.049	-.164
Something to do when with others*	**.205**	-.144	-.040	-.071
Emotional Relief				
Relieve feeling numb/empty	.145	**.823**	.070	-.239
Feel something – even if pain	.073	**.706**	.037	-.013
Stop bad feelings	-.035	**.620**	-.164	.022
Punish self	.040	**.512**	-.110	-.077
Get control of a situation	.053	**.503**	.053	.158
Hurt self instead of someone else	.078	**.445**	.026	.210
Avoid being with people	.034	**.437**	.218	.248
Feel relaxed*	-.128	**.384**	.281	.028
Social				
See what it was like	.206	-.100	**.805**	-.018
Prove bravery	.224	.057	**.616**	.072
Something to do when alone	-.167	-.273	**.610**	.203
Be like someone you respect	-.134	.062	**.568**	.092
Because friends do it	-.107	.138	**.524**	.069
Be different from everyone else*	.143	-.039	**.373**	-.060
Make others angry*	.230	.167	**.299**	-.041
Feel more part of group*	.236	.055	**.289**	.204
Avoidance				
Avoid doing something unpleasant	.044	.164	.010	**.887**
Avoid school/work/other activities	.052	.067	.011	**.646**
Avoid punishment/consequences	.122	-.040	.189	**.502**

*Items with factor loadings <0.4 omitted from DSH subscales.

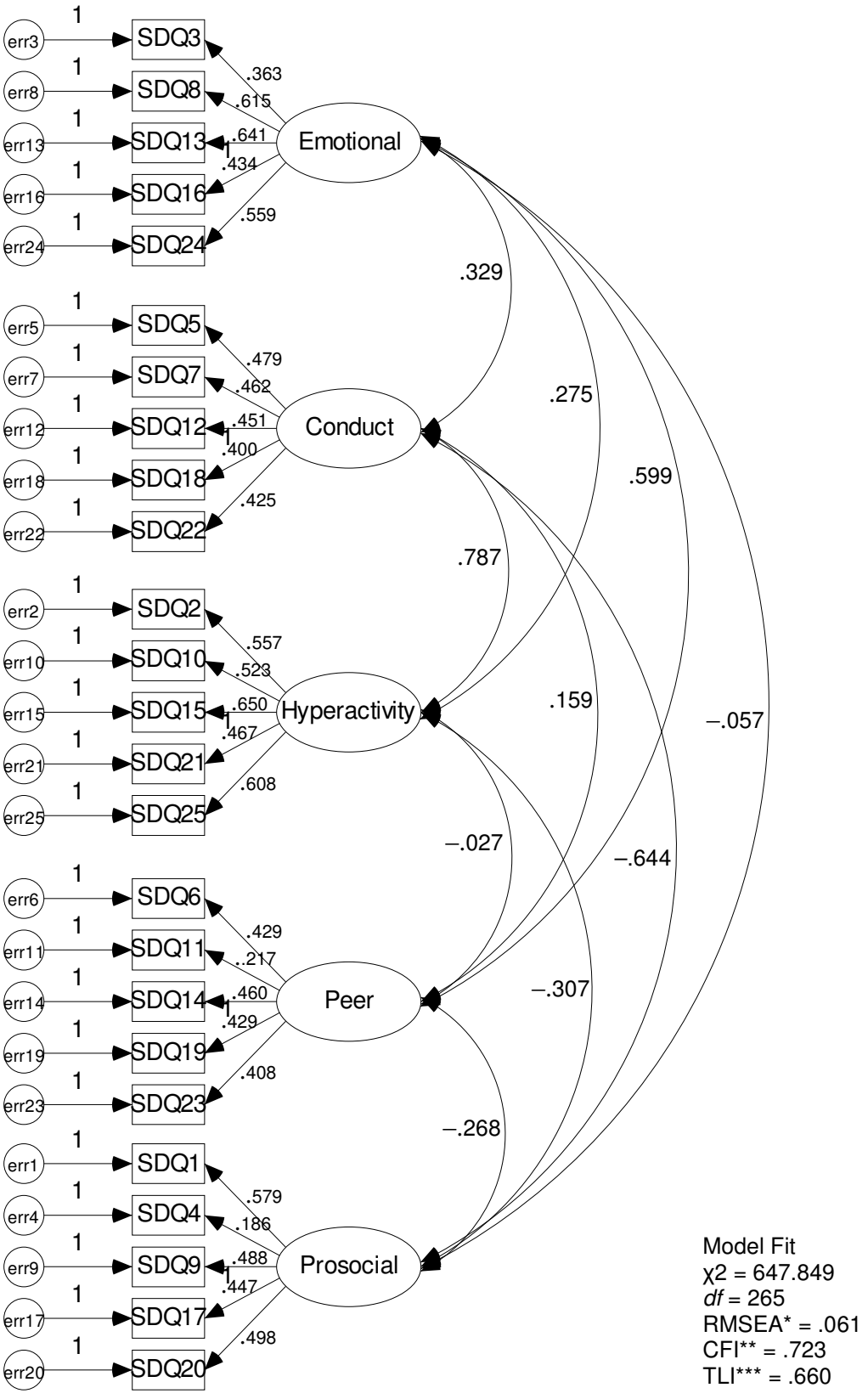


Figure 1. Five-factor first order model for the SDQ used for confirmatory factor analysis, with standardised factor loadings and subscale correlations.

** RMSEA = Root Mean Square Error of Approximation; ** CFI = Comparative Fit Index; *** TLI = Tucker Lewis Index*

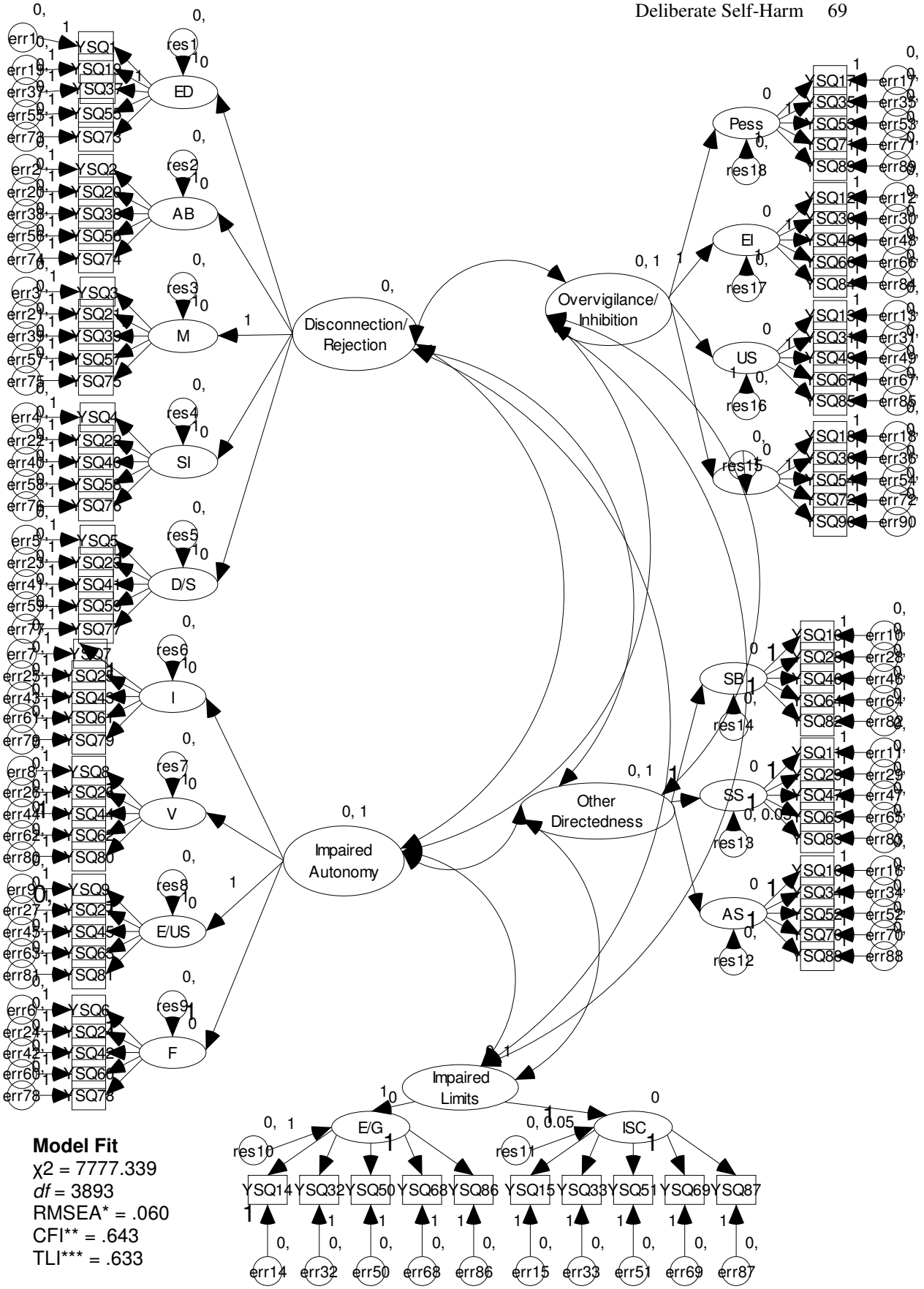


Figure 2. Correlated second order model for the YSQ used for confirmatory factor analysis.

** RMSEA = Root Mean Square Error of Approximation; ** CFI = Comparative Fit Index; *** TLI = Tucker Lewis Index*

Table 7
Model Fit for the SDQ and YSQ Scales

Scale	X^2	DF	RMSEA	CFI	TLI
SDQ	647.849	265	.061	.723	.660
YSQ	7777.339	3893	.060	.643	.633

A number of indices of fit were examined, specifically the Root Mean Square Error of Approximation (RMSEA), the Comparative Fit Index (CFI) and the Tucker Lewis Index (TLI). Ideally, to show acceptable fit, the RMSEA should be ≤ 0.08, and both the CFI and TLI ≥ 0.9. For good fit, the RMSEA should be ≤ 0.06, and both the CFI and TLI ≥ 0.95.

While CFI and TLI results were poor (see Table 7), RMSEA scores indicated that both the SDQ and the YSQ models had adequate to good fit (0.061 and 0.06, respectively) with narrow confidence intervals around the RMSEA score (0.055 to 0.067 and 0.058 to 0.062, respectively). The RMSEA is considered particularly useful as it is sensitive to model misspecification and complexity, and allows for confidence intervals around RMSEA values (Byrne, 2010). Narrow confidence intervals around the RMSEA indicate good precision in respect of model fit, while broad confidence intervals suggest that model fit cannot be established with accuracy. Results, however, should be interpreted with caution due to the low CFI and TLI scores..

Social Influence scale. As this scale was based on a combination and modification of others scales, a principal components exploratory factor analysis was conducted. Results suggested that the scale loaded on three factors. Based on the three suggested factors, a maximum likelihood analysis with Varimax rotation was then conducted, with the subscales being identified as Parent Influence, Peer Influence and Peer Pressure. Six items failed to load adequately on the proposed factors and were therefore omitted from further analyses (see Table 8).

Table 8
Exploratory Factor Structure of the Social Influence Scale

	1	2	3
Parent Influence			
Overall I am more influenced by my parents than my friends	**.780**	.213	.184
My parents have more influence than my friends about my beliefs and values	**.704**	-.044	.110
My parents and I have the same beliefs and values	**.663**	-.172	.128
In general, I am more influenced by my friends than by my parents	**.633**	.414	.293
My parents have more influence than my friends on who I am as a person	**.593**	-.114	.144
I do not care what my parents think of the people I date*	**.384**	.117	.195
Peer Influence			
My friends' opinions about the people I date are more important than my parents' opinions	.431	**.609**	.240
It is important what my friends think about the people I date	.131	**.599**	.005
I have the same beliefs and values as my friends*	-.186	**.357**	.043
I am more worried about what other kids think than what my parents think*	.169	**.356**	.162
It is important to be part of a group*	-.116	**.353**	.048
Peer Pressure			
I would have an alcoholic drink, even though I didn't want it, if my friends wanted me to have it	.218	.177	**.726**
I would do something I didn't want to do if my friends were pressing me to do it	.209	.174	**.695**
I would take drugs, even if I didn't want to, if my friends were doing it and wanted me to do it too	.159	.103	**.667**
If I didn't want to skip school but my friends wanted me to, I wouldn't do it*	.164	-.062	**.425**
Being part of a group means you have to do the things the other kids do*	-.029	.238	**.299**

*Items with factor loadings <0.45 omitted from Social Influence totals

DSH Participants – Inter-Scale Correlations

SDQ and YSQ. Correlations were conducted to explore the strength of the relationships between the SDQ and YSQ difficulty scales. As expected, the SDQ Total Problem scale showed moderate to strong significant positive correlations (*r*'s from .230 to .464) with the majority of the YSQ schemas. The SDQ Impact of Problems and Emotional Problems subscales also showed moderate to strong positive correlations, predominantly with the Disconnection/Rejection domain ($r(82) = .455$, $p < .01$ and $r(82) = .385$, $p < .01$, respectively) and the Overvigilance/Inhibition domain ($r(82) = .536$, $p < .01$ and $r(82) = .425$, $p < .01$, respectively) and their corresponding schemas (*r*'s from .255 to .538). The SDQ Hyperactivity scale correlated predominantly with the YSQ Impaired Autonomy domain ($r(82) = .398$, $p < .01$) and the Impaired Limits domain ($r(82) = .532$, $p < .01$) and their corresponding schemas, while the SDQ Peer Problems scale showed moderate significant correlations with the Disconnection/Rejection domain ($r(82) = .439$, $p < .01$) and schemas. The SDQ Conduct Problems scale correlated primarily with the Impaired Limits domain ($r(82) = .357$, $p < .01$) and schemas and showed a moderate negative correlation with the Self-Sacrifice schema ($r(82) = –.262$, $p < .05$). (See Appendix Table E2 for a complete list of SDQ and YSQ correlations.)

Normalising. The Normalising scale showed significant positive moderate correlations with the SDQ Conduct Problems scale ($r(82) = .267$, $p < .05$), the YSQ Total scale ($r(80) = .284$, $p < .05$) and the YSQ domains of Disconnection/Rejection ($r(80) = .311$, $p < .01$), Impaired Autonomy ($r(80) = .273$, $p < .05$) and Impaired Limits ($r(80) = .266$, $p < .05$). Specific YSQ schemas showing moderate significant correlations with the Normalising scale were Mistrust/Abuse ($r(80) = .258$, $p < .05$),

Defectiveness/Shame ($r(80) = .342$, $p < .01$), Social Isolation/Alienation ($r(80) = .315$, $p < .01$) and Insufficient Self–Control ($r(80) = .263$, $p < .05$). There was also a moderate positive correlation between Normalising and the number of times participants had harmed ($r(82) = .250$, $p < .05$). (See Appendix Table E3 for a complete list of Normalising correlations.)

Overall Social Influence. The Overall Social Influence scale had significant moderate positive correlations with the SDQ scales of Conduct Problems ($r(80) = .316$, $p < .01$), Hyperactivity ($r(80) = .248$, $p < .05$) and Total Problems ($r(80) = .245$, $p < .05$) and a moderate negative correlation with the Prosocial Behaviours scale ($r(80) = –.247$, $p < .05$). Overall Social Influence also correlated positively with the YSQ domains of Disconnection/Rejection ($r(78) = .239$, $p < .05$) and Impaired Autonomy ($r(78) = .225$, $p < .05$), and with the YSQ schemas of Abandonment/Instability ($r(79) = .231$, $p < .05$), Dependence/Incompetence ($r(78) = .306$, $p < .01$) and Failure ($r(78) = .227$, $p < .05$). (See Appendix Table E3 for a complete list of Overall Social Influence correlations.)

Social Influence Subscales. Only the Parent Influence subscale showed significant correlations with the SDQ and YSQ. A moderate positive correlation was shown with the SDQ Prosocial Behaviours scale ($r(81) = .227$, $p < .05$), while moderate negative correlations were shown with the SDQ Conduct Problems scale ($r(81) = –.278$, $p < .05$) and the YSQ schemas of Defectiveness/Shame ($r(79) = –.278$, $p < .05$), Dependence/Incompetence ($r(79) = –.224$, $p < .05$) and Failure ($r(79) = –.235$, $p < .05$). (See Appendix Table E3 for a complete list of Social Influence subscale correlations.)

Secrecy. The Secrecy scale showed moderate positive correlations with the YSQ schemas of Emotional Deprivation ($r(78) = .323$, $p < .01$), Defectiveness ($r(77) = .244$, $p < .05$), Vulnerability ($r(77) = .286$, $p < .05$), Unrelenting Standards ($r(77) = .326$, $p < .01$) and Punitiveness ($r(77) = .303$, $p < .01$). Moderate positive correlations were also shown between the Secrecy scale and the YSQ domain of Overvigilance/Inhibition ($r(77) = .317$, $p < .01$) and the YSQ Total scale ($r(77) = .259$, $p < .05$). (See Appendix Table E3 for a complete list of Secrecy correlations.)

Severity. Moderate positive correlations were found between the DSH Severity Index and a number of the YSQ schemas, predominantly in the Disconnection/Rejection domain (*r's* from .340 to .411, $p < .01$) and the Overvigilance/Inhibition domain (*r's* from .222 to .312, $p < .05$). The Severity Index also correlated moderately with the SDQ scales of Emotional Problems ($r(81) = .222$, $p < .05$), Peer Problems ($r(81) = .252$, $p < .05$) and Impact of Problems ($r(81) = .284$, $p < .05$). There was also a significant moderate positive correlation between DSH Severity and the Normalising scale ($r(79) = .286$, $p < .05$). (See Appendix Table E3 for a complete list of Severity correlations.)

Reasons for DSH. On the Reasons for DSH subscales, Emotional Reasons showed significant moderate positive correlations with almost all of the YSQ schemas and domains (*r's* from .221 to .472), with the exception of the schemas of Enmeshment, Failure, Approval-Seeking, Unrelenting Standards, Entitlement and Insufficient Self-Control, and the domain of Impaired Limits. A moderate positive correlation was shown between Emotional Reasons for DSH and the SDQ Impact scale ($r(84) = .444$, $p < .01$). Moderate positive correlations were seen between Emotional Reasons for DSH and: the number of occurrences of self-harm ($r(84) = .421$, $p < .01$); Normalising of DSH

($r(82) = .259$, $p < .05$); and Overall Social Influence ($r(80) = .292$, $p < .01$); and negative correlations with: Parent Influence ($r(81) = -.356$, $p < .01$); and the age participants first harmed ($r(81) = -.318$, $p < .01$). The Emotional Reasons scale also showed a significant strong positive relationship with the Severity scale ($r(81) = .544$, $p < .01$). (See Appendix Table E4 for a complete list of Reasons for DSH correlations.)

The only other significant correlations with the Reasons for DSH subscales were Attention/Communication Reasons with YSQ Approval-Seeking ($r(82) = .238$, $p < .05$), and Social Reasons with Normalising of DSH ($r(82) = .399$, $p < .01$).

DSH vs Non-DSH Participants

In respect of group identification, self-harmers were most likely to identify with the popular (33.3%) or sporty (25%) groups or with no group at all (25%), while non-self-harmers identified with the sporty (27.4%) group or no group (31%). Chi-square analysis revealed that self-harmers were significantly more likely to identify with the groups of Emo ($\chi^2(1, n = 387) = 20.809$, $p < .01$) and Popular ($\chi^2(1, n = 387) = 16.086$, $p < .01$) when compared to non-self-harming participants (see Figure 3).

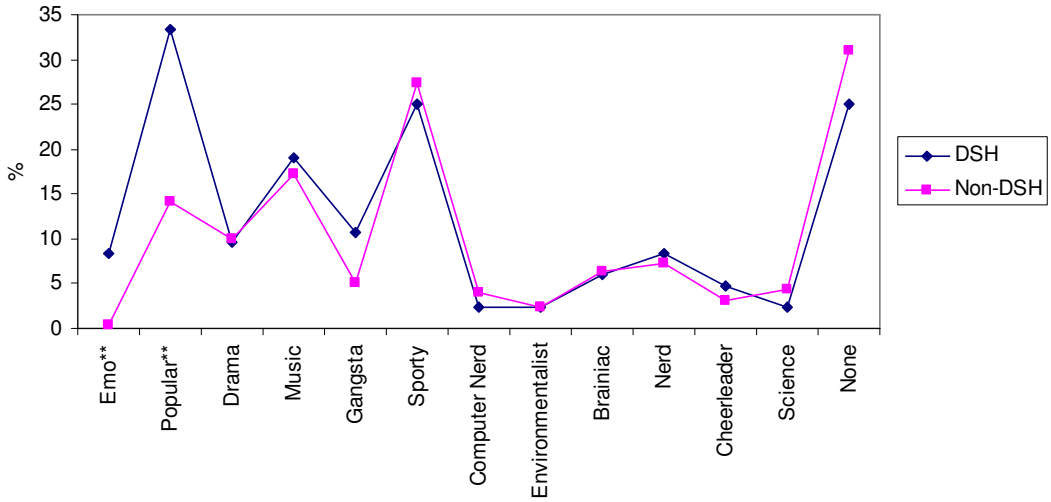


Figure 3. Percentage of DSH and non-DSH participants identifying with each group (** p <0.01).

An ANOVA analysis revealed that mean scores on the SDQ differed significantly between DSH and non-DSH participants on all scales except Peer Problems and Prosocial Behaviours. The DSH group exhibited significantly more difficulties and reported a greater impact of these difficulties than the non-DSH group (see Table 9).

Similarly, when compared with non-self-harmers, DSH participants had higher mean scores on all of the 18 YSQ schemas and 5 YSQ domains, with the difference being statistically significant on all scales except Entitlement/Grandiosity, Approval-Seeking, and Unrelenting Standards (see Table 10).

Self-harmers and non-self-harmers did not appear to differ in their normalisation of DSH. Mean scores on the Normalising scale revealed no significant difference between the DSH group ($M = 5.33$; $SD = 3.77$) and the non-DSH group ($M = 4.64$; $SD = 2.71$).

Table 9
Mean Scores and Standard Deviations on the SDQ for DSH and non-DSH participants

	DSH		**Non-DSH**		***p***
Subscales	**Mean**	***SD***	**Mean**	***SD***	
Emotional problems	4.54	*2.39*	3.33	*2.11*	.000**
Conduct problems	2.98	*1.92*	2.0	*1.44*	.000**
Hyperactivity	5.18	*1.98*	4.04	*2.09*	.000**
Peer problems	1.70	*1.57*	1.42	*1.32*	.096
Prosocial behaviours	7.55	*1.66*	7.70	*1.54*	.434
Total difficulties	**14.40**	***4.68***	**10.78**	***4.50***	**.000****
Impact of problems	1.85	*1.85*	0.58	*1.28*	.000**

*p < .05; ** *p* <0.01

Table 10
Mean Scores and Standard Deviations on the YSQ for DSH and non-DSH Participants

	DSH		Non-DSH		*p*
Domains/Subscales	**Mean**	***SD***	**Mean**	***SD***	
Disconnection/Rejection	**63.36**	***23.65***	**51.32**	***18.12***	**.000****
Abandonment/Instability	13.31	*6.4*	11.29	*5.15*	.003**
Mistrust/Abuse	13.75	*5.35*	11.12	*5.0*	.000**
Emotional Deprivation	12.12	*5.95*	10.07	*4.64*	.001**
Defectiveness/Shame	11.60	*5.33*	9.25	*4.0*	.000**
Social Isolation/Alienation	12.42	*6.49*	9.65	*4.15*	.000**
Impaired Autonomy	**52.35**	***14.36***	**44.12**	***13.43***	**.000****
Dependence/Incompetence	12.86	*4.24*	11.33	*3.7*	.001**
Vulnerability to Harm	13.67	*5.28*	10.41	*4.3*	.000**
Enmeshment/Undeveloped Self	11.39	*4.53*	10.14	*3.95*	.014*
Failure	14.42	*6.45*	12.24	*5.42*	.002**
Impaired Limits	**28.69**	***7.72***	**26.15**	***6.94***	**.004****
Entitlement/Grandiosity	13.78	*4.10*	12.98	*3.84*	.098
Insufficient Self-Control	14.91	*4.72*	13.17	*4.5*	.002**
Other Directedness	**45.9**	***10.77***	**41.47**	***9.7***	**.000****
Subjugation	13.70	*4.73*	11.31	*4.26*	.000**
Self-Sacrifice	17.20	*5.25*	14.98	*4.46*	.000**
Approval-Seeking	15.01	*5.25*	15.17	*4.68*	.787
Overvigilance/Inhibition	**59.56**	***19.76***	**50.25**	***14.22***	**.000****
Negativity/Pessimism	16.24	*6.51*	12.46	*5.14*	.000**
Emotional Inhibition	13.02	*5.77*	10.93	*4.38*	.000**
Unrelenting Standards	16.3	*6.01*	15.64	*4.95*	.312
Punitiveness	14.00	*6.21*	11.23	*4.28*	.000**
YSQ Total	**249.85**	***59.36***	**213.31**	***52.31***	**.000****

*p < .05; ** *p* <0.01

On the Social Influence scale, self-harmers differed significantly from non-self-harmers in Overall Social Influence ($F(1,366) = 42.418$, $p < .01$) as well as on each of the subscales: Parent Influence ($F(1,374) = 40.467$, $p < .01$), Peer Influence ($F(1,380) = 9.696$, $p < .01$) and Peer Pressure ($F(1,379) = 19.857$, $p < .01$) (see Figure 4). The DSH participants reported greater Overall Social Influence than their non-self-harming counterparts ($M = 24.93$, $SD = 8.27$ and $M = 18.21$, $SD = 8.13$,

respectively), which was also reflected in higher Peer Influence (*M* = *10.85*, *SD* = 4.99 and *M* = 8.98, *SD* = 4.78, respectively) and Peer Pressure (*M* = *5.71*, *SD* = 4.96 and *M* = 3.45, *SD* = 3.84, respectively), and lower Parent Influence (*M* = *7.80*, *SD* = 4.37 and *M* = 11.08, *SD* = 4.03, respectively).

Low Problem DSH vs All Non-DSH

Twenty-four DSH participants were identified as being in the Low Problem DSH (LP-DSH) group ("normal" ratings on the SDQ Total Problems and SDQ Impact scales) and an ANOVA was performed comparing this group with all non-DSH participants. The LP-DSH group scored significantly higher on Overall Social Influence ($F(1,307) = 11.4$, $p < .01$) as well as the subscales of Peer Influence ($F(1,321) = 4.298$, $p < .05$) and Peer Pressure ($F(1,319) = 5.472$, $p < .05$), and significantly lower on Parent Influence ($F(1,315) = 11.749$, $p < .01$) (see Figure 5). However, the two groups showed no significant differences in their scores on the Normalising of DSH scale or on any of their YSQ schema and domain scores.

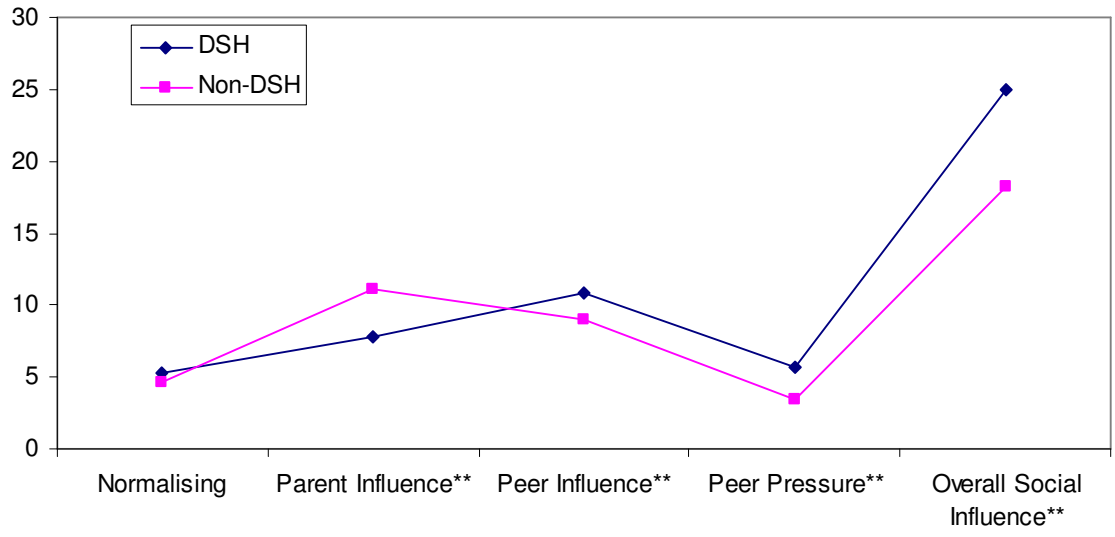


Figure 4. Mean scores on Normalising, Overall Social Influence and Social Influence subscales for DSH and non-DSH participants (** $p < .01$).

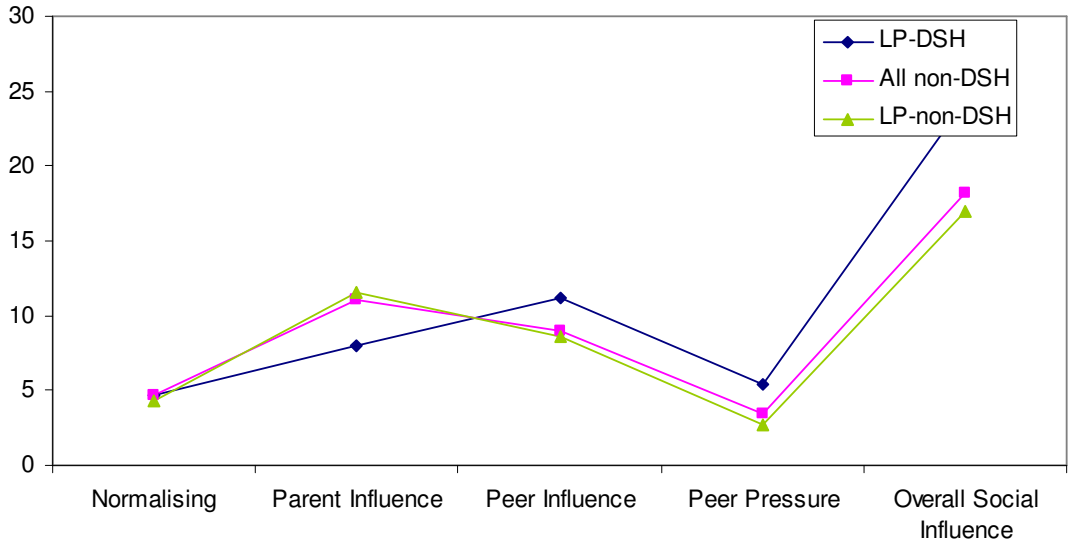


Figure 5. Mean scores on Normalising, Overall Social Influence and Social Influence subscales for Low Problem DSH (LP-DSH), All non-DSH and Low Problem non-DSH (LP-non-DSH) participants.

Low Problem DSH vs Low Problem Non-DSH

When the LP-DSH group were compared to non-DSH participants who also had "normal" scores on the SDQ (n = 206; LP-non-DSH), the LP-DSH participants again scored significantly higher on Overall Social Influence ($F(1,215) = 19.341$, $p < .01$), Peer Influence ($F(1,224) = 6.125$, $p < .05$) and Peer Pressure ($F(1,225) = 12.638$, $p < .01$), and lower on Parent Influence ($F(1,220) = 17.343$, $p < .01$). They also scored significantly higher than the LP-non-DSH group on the schemas of Defectiveness ($F(1,226) = 7.499$, $p < .01$), Vulnerability ($F(1,226) = 7.808$, $p < .01$) and Subjugation ($F(1,226) = 4.388$, $p < .05$). No differences were seen in scores on the Normalising scale.

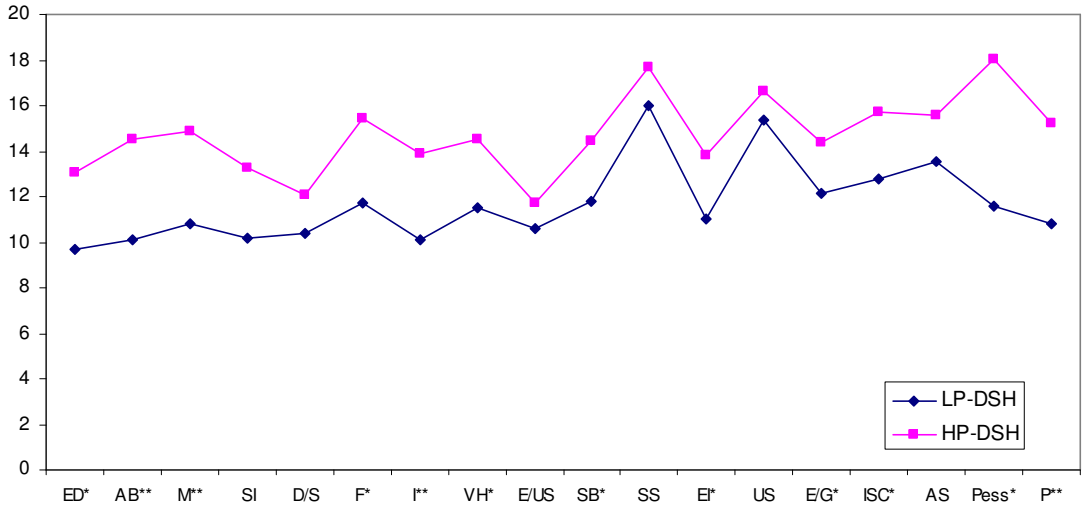
Low Problem DSH vs High Problem DSH

Chi-square analysis revealed that compared to the remaining High Problem DSH participants (HP-DSH), the LP-DSH group were less likely to know other people who engaged in DSH ($\chi^2(1, n = 84) = 4.251$, $p < .05$) and that the people they did know were

less likely to be family members ($\chi^2(1, n = 84) = 4.032, p < .05$). They were also less likely to classify themselves as being in the Popular group ($\chi^2(1, n = 84) = 4.200, p < .05$). In respect of reasons for self-harming, the LP-DSH group scored significantly lower on the Emotional Reasons scale ($F(1,82) = 5.961, p < .05$) than did their counterparts ($M = 4.67$, $SD = 4.007$ and $M = 7.40$, $SD = 4.858$, respectively), but showed no differences on the other Reasons for DSH scales. They also scored significantly lower on the YSQ Total ($F(1,80) = 17.155, p < .01$) and on the majority of the YSQ schemas and domains (see Figures 6a and 6b). There were no significant differences in scores on the Normalising scale or the Social Influence scales between the two groups.

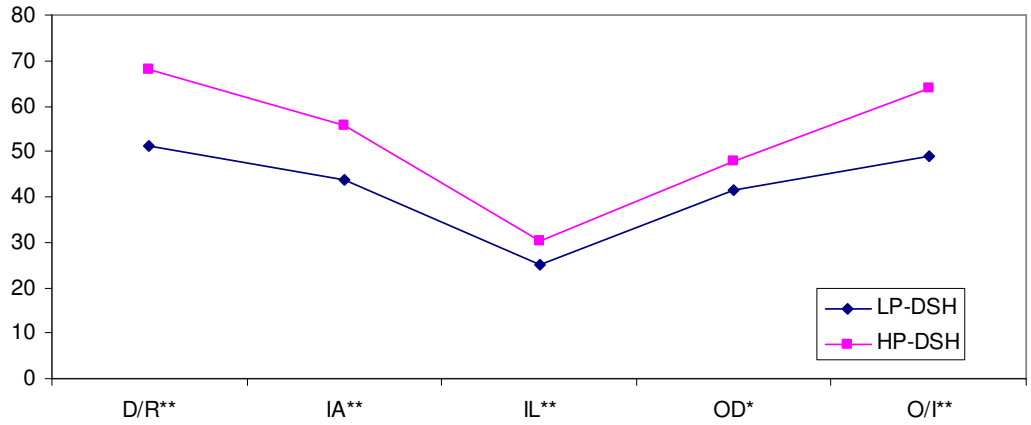
DSH Participants – Borderline Traits (BT)

Using the criteria outlined in the Method section, 16 DSH participants were identified as being likely to fit the BT group, leaving 68 DSH participants in the non-BT group. ANOVA analyses revealed that BT participants scored significantly higher ($p < .01$) than non-BT participants in Overall Social Influence ($M = 30.12$, $SD = 6.39$ and $M = 23.63$, $SD = 8.22$, respectively) and significantly lower ($p < .05$) in Parent Influence ($M = 5.3$, $SD = 3.86$ and $M = 8.42$, $SD = 4.29$, respectively). They were also likely to have harmed more often ($M = 5.0$, $SD = 3.72$ and $M = 2.88$, $SD = 2.98$, respectively; $p < .05$) and to have endorsed Emotional Reasons for harming ($M = 11.38$, $SD = 3.98$ and $M = 5.5$, $SD = 4.24$, respectively; $p < .01$). There were no significant differences between the two groups in Normalising, Secrecy, or Social Reasons endorsed for DSH (see Figure 7).



ED=Emotional Deprivation; AB=Abandonment; M=Mistrust; SI=Social Isolation; D/S=Defectiveness/Shame; F=Failure; I=Incompetence; V=Vulnerability to Harm; E/US=Enmeshment/Undeveloped Self; SB=Subjugation; SS=Self-Sacrifice; EI=Emotional Inhibition; US=Unrelenting Standards; E/G=Entitlement/Grandiosity; ISC=Insufficient Self-Control; AS=Approval-Seeking; Pess=Pessimism; P=Punitiveness.

Figure 6a. Mean scores on YSQ schemas for Low Problem DSH (LP-DSH) and High Problem DSH (HP-DSH) participants (*$p < .05$; **$p < .01$).



D/R=Disconnection/Rejection; IA=Impaired Autonomy; IL=Impaired Limits; OD=Otherdirectedness; O/I=Overvigilance/ Inhibition.

Figure 6b. Mean scores on YSQ domains for Low Problem DSH (LP-DSH) and High Problem DSH (HP-DSH) participants (*$p < .05$; **$p < .01$).

On the SDQ problem scales, the BT group scored significantly higher on Emotional Problems ($F(1,82) = 5.995$, $p < .05$), Total Problems ($F(1,82) = 4.013$, $p < .05$) and Impact of Problems ($F(1,82) = 13.108$, $p < .01$) when compared to the non-BT group (see Figure 8). Mean scores for the BT and non-BT groups, respectively, were 5.81 ($SD = 2.834$) and 4.24 ($SD = 2.186$) for Emotional Problems,

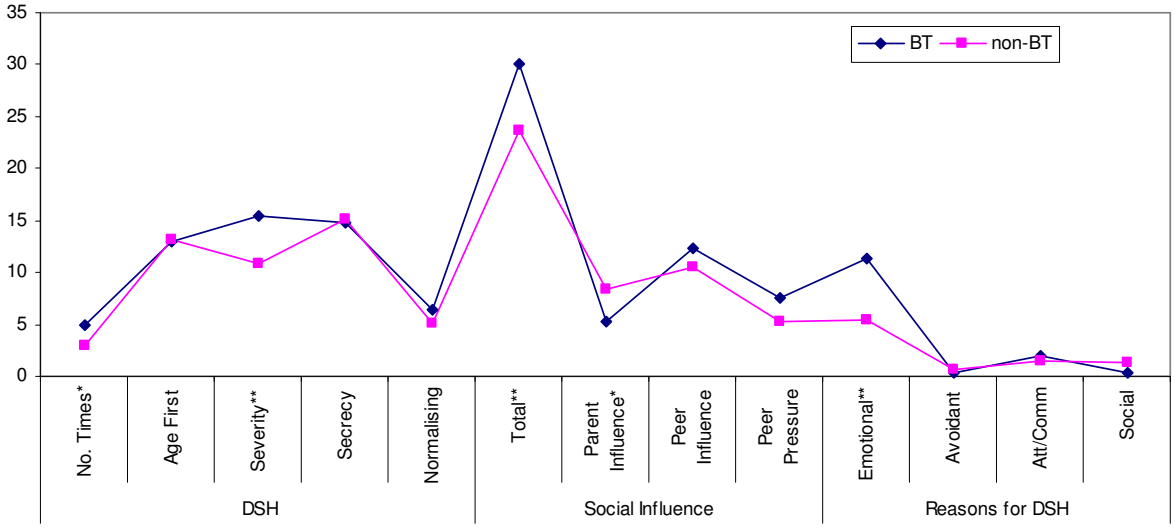


Figure 7. Mean scores for BT and non-BT participants on DSH, social influence and reasons for DSH scales (*$p < .05$; **$p < .01$).

16.47 (*SD* = 3.871) and 13.91 (*SD* = 4.74) for Total Problems, and 3.25 (*SD* = 2.324) and 1.51 (*SD* = 1.56) for Impact of Problems.

In respect of the YSQ schemas and domains, the BT group were more likely to score higher than their non-BT counterparts, with significant differences in scores on 10 of the 18 schemas and 3 of the 5 schema domains, as well as the YSQ Total score (see Table 11). However, the non-BT participants still scored significantly higher than the non-DSH participants on 10 of the 18 schemas and all of the schema domains (see Figures 9a and 9b).

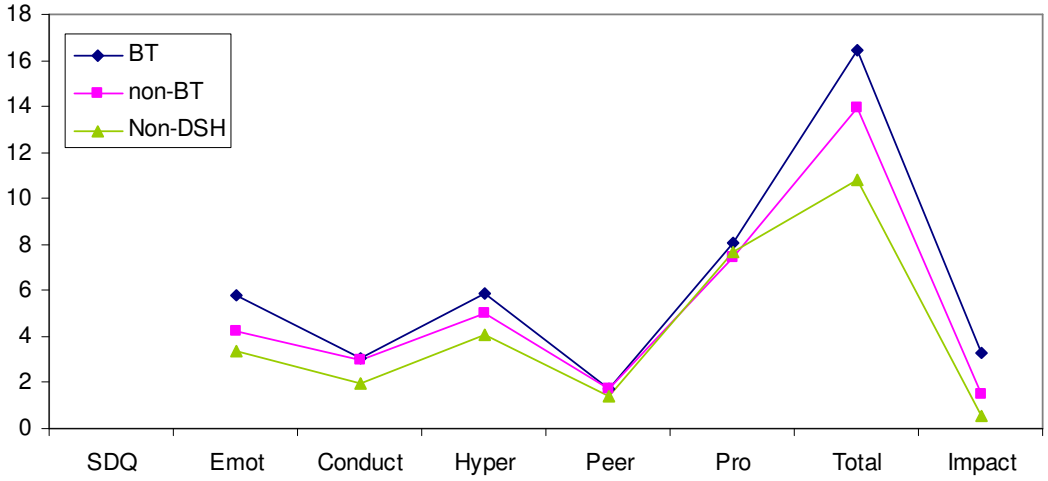


Figure 8. Mean scores for BT, non-BT and non-DSH participants on SDQ scales.

Table 11
Mean Scores For BT and non-BT Participants on the YSQ Schemas and Domains

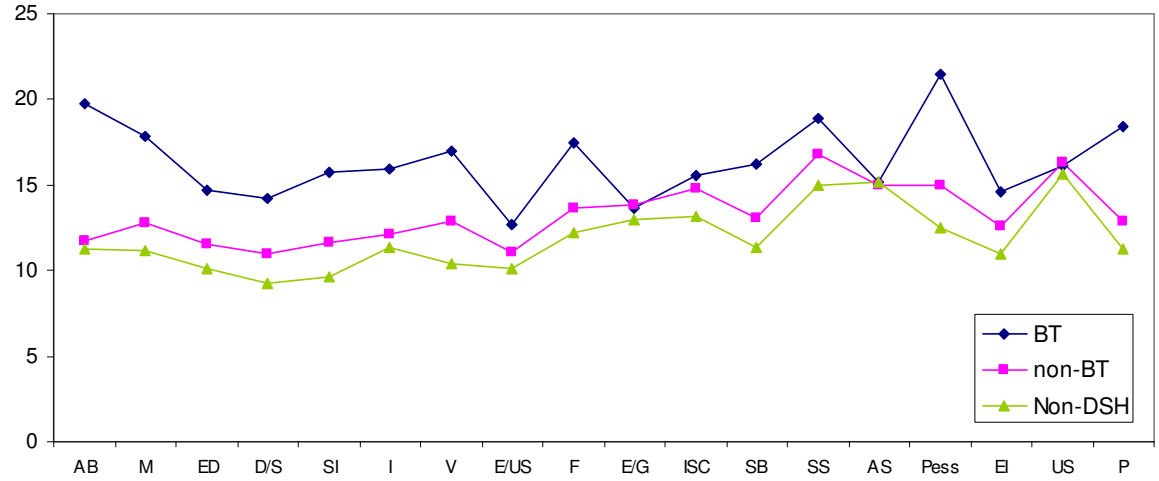
	non–BT		BT	
	Mean	***SD***	**Mean**	***SD***
Disconnection/Rejection**	58.78	*21.53*	82.25	*23.22*
Abandonment/Instability**	11.77	*5.86*	19.75	*4.19*
Mistrust/Abuse**	12.76	*5.02*	17.81	*4.85*
Emotional Deprivation	11.51	*5.33*	14.69	*7.74*
Defectiveness/Shame*	10.96	*4.83*	14.25	*6.55*
Social Isolation/Alienation*	11.61	*6.1*	15.75	*7.2*
Impaired Autonomy**	49.75	*13.36*	63.06	*13.75*
Dependence/Incompetence**	12.12	*4.03*	15.94	*3.73*
Vulnerability to Harm**	12.88	*5.28*	16.94	*3.94*
Enmeshment/Undeveloped Self	11.08	*4.41*	12.69	*4.92*
Failure*	13.67	*6.03*	17.50	*7.39*
Impaired Limits	28.58	*8.07*	29.14	*6.3*
Entitlement/Grandiosity	13.82	*4.25*	13.63	*3.56*
Insufficient Self-Control	14.76	*4.81*	15.52	*4.44*
Otherdirectedness	44.85	*10.63*	50.25	*10.59*
Subjugation*	13.09	*4.58*	16.19	*4.665*
Self-Sacrifice	16.77	*5.03*	18.94	*5.95*
Approval-Seeking	14.98	*5.23*	15.13	*5.51*
Overvigilance/Inhibition*	56.86	*19.15*	70.69	*18.85*
Negativity/Pessimism**	14.97	*6.17*	21.50	*5.23*
Emotional Inhibition	12.63	*5.65*	14.63	*6.16*
Unrelenting Standards	16.34	*6.21*	16.13	*5.29*
Punitiveness**	12.92	*5.59*	18.44	*6.82*
YSQ Total**	238.82	*55.69*	295.39	*53.25*

* $p < .05$; ** $p < .01$

Chi-square analysis also revealed that the BT group were more likely than their non-BT counterparts to still be self-harming ($\chi^2(1, n = 81) = 8.528, p < .01$).

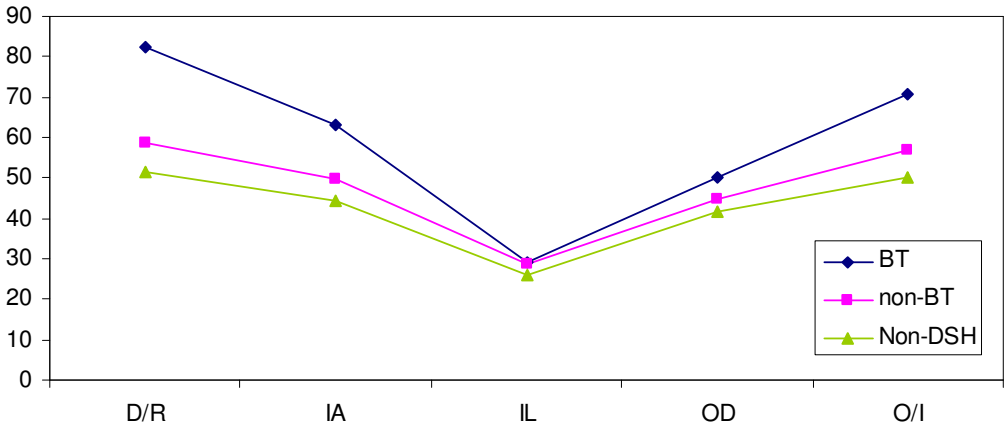
Socially-Motivated DSH

Chi-square analysis revealed that the Social group were more likely than the non-Social group to have harmed in front of others ($\chi^2(1, n = 84) = 4.138, p < .05$), although when the BT group were excluded there was no significant difference between social and non-social harmers. There were no significant differences between the groups in



AB=Abandonment; M=Mistrust; ED=Emotional Deprivation; D/S=Defectiveness/Shame; SI=Social Isolation; I=Incompetence; V=Vulnerability to Harm; E/US=Enmeshment/Undeveloped Self; F=Failure; E/G=Entitlement/Grandiosity; ISC=Insufficient Self-Control; SB=Subjugation; SS=Self-Sacrifice; AS=Approval-Seeking; Pess=Pessimism; EI=Emotional Inhibition; US=Unrelenting Standards; P=Punitiveness.

Figure 9a. Mean scores for BT, non-BT and non-DSH participants on YSQ schemas.



D/R=Disconnection/Rejection; IA=Impaired Autonomy; IL=Impaired Limits; OD=Otherdirectedness; O/I=Overvigilance/ Inhibition.

Figure 9b. Mean scores for BT, non-BT and non-DSH participants YSQ domains.

their likelihood of harming with others, or in the number of others they knew who engaged in self-harming behaviours. For the non-BT group only, those who endorsed social reasons for DSH ($n = 34$) were more likely than the non-Social group ($n = 34$) to use cutting as their method of DSH ($\chi^2(1, n = 68) = 4.121, p < .05$).

In respect of group affiliation, the Social group were more likely to identify with both the Emo group $\chi^2(1, n = 84) = 5.05, p < .05$) and the Gangsta group $\chi^2(1, n = 84) =$

4.308, $p < .05$). Once the BT group were excluded, only affiliation with the Emo group showed a significant difference between the Social and the non-Social group $\chi^2(1, n = 68) = 5.397$, $p < .05$). However, these results need to be interpreted with caution given the low numbers of Emo ($n = 7$) and Gangsta ($n = 9$) participants. There were no other significant differences in group identification between the groups.

An ANOVA analysis showed a significant difference in mean scores on the Normalising scale ($F(1,84) = 5.518$, $p < .05$) with the Social group more likely to normalise DSH behaviours ($M = 6.38$, $SD = 3.781$) than the non-Social group ($M = 4.47$, $SD = 3.571$) (see Figure 10). This result was still significant once the BT group were excluded ($F(1,64) = 6.660$, $p < .05$). While the Social group scored slightly lower in terms of secrecy, the difference was not statistically significant.

While the Social group (with or without BT participants) scored significantly higher on the scale of Peer Pressure ($F(1,84) = 5.624$, $p < .05$) than did the non-Social group ($M = 7.09$, $SD = 4.536$ and $M = 4.58$, $SD = 5.049$, respectively), there were no significant differences in Overall Social Influence, Parent Influence or Peer Influence (see Figure 10).

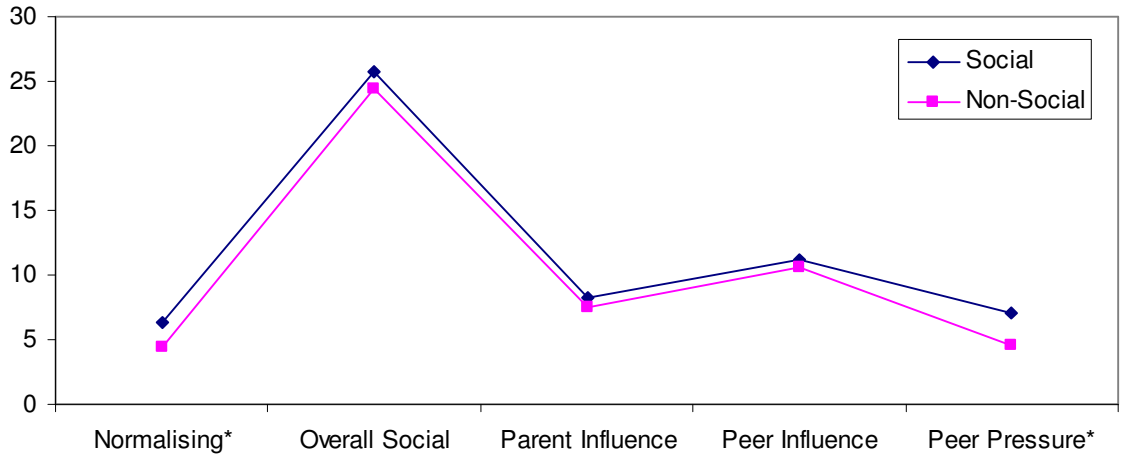
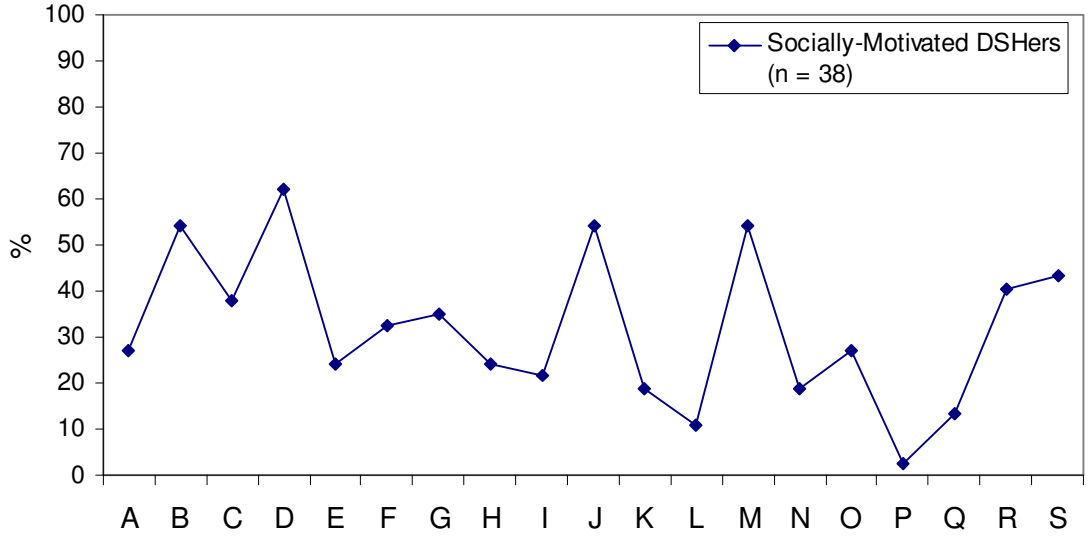


Figure 10. Mean scores on the Normalising and Social Influence scales for socially-motivated and non-socially motivated DSH participants (*$p < .05$).

There were no significant differences on the SDQ problems scales with the exception of the SDQ Impact scale ($F(1,84) = 6.052$, $p < .05$) where the Social group reported a significantly lower level of impact of problems ($M = 1.32$, $SD = 1.416$ and $M = 2.28$, $SD = 2.051$, respectively). This difference was not significant once the BT group were excluded.

On the YSQ schema and domain scales, scores between the two groups differed significantly only on the schemas of Pessimism ($F(1,81) = 4.357$, $p < .05$) and Punitiveness ($F(1,81) = 6.88$, $p < .05$), and on the domain of Overvigilance/Inhibition ($F(1,81) = 6.042$, $p < .05$), with the Social group endorsing significantly lower levels of pessimism ($M = 14.66$, $SD = 5.252$ and $M = 17.61$, $SD = 7.214$, respectively), punitiveness ($M = 12.13$, $SD = 5.025$ and $M = 15.61$, $SD = 6.718$, respectively) and overvigilance ($M = 535.96$, $SD = 15.406$ and $M = 64.40$, $SD = 21.903$, respectively) than the non-Social group. When the BT group were excluded, only the schema of Punitiveness showed a significant difference between the groups.

The two groups (with or without BT participants) showed no difference in scores on Emotional reasons for DSH but differed significantly on the Attention/Communication Reasons for DSH scale ($F(1,84) = 5.970$, $p < .05$). The Social group were more likely to endorse Attention or Communication Reasons for DSH ($M = 2.39$, $SD = 3.665$) in addition to Social Reasons than were the non-Social group ($M = 0.78$, $SD = 2.337$). However, when looked at in isolation, the most common additional reasons for harming for those participants who endorsed a social reason for DSH were “To feel something, even if it was pain” (62.2%), “To punish yourself” (54.1%), “To stop bad feelings” (54.1%), “To relieve feeling “numb” or empty” (54.1%), “To hurt yourself instead of hurting someone else” (43.2%) and “To feel relaxed” (40.5%) (see Figure 11).



A=Avoid school/other activities; B=Relieve numb/emptiness; C=Get attention; D=Feel something; E=Avoid something unpleasant; F=Get control; G=Get a reaction; H=Attention from parents/friends; I=Avoid people; J=Punish self; K=Get others to change; L=Avoid punishment; M=Stop bad feelings; N=Let others know desperation; O=Get parents to understand/notice; P=Something to do with others; Q=Get help; R=Feel relaxed; S=Hurt self instead of others.

Figure 11. Percentage of socially-motivated DSH participants who endorsed other (non-social) reasons for harming.

First Time Reason for DSH

Chi-square and ANOVA analyses were conducted to determine differences between DSH participants in respect of the reason they had harmed for the first time. Twenty-two participants either did not specify or provided an "other" first reason. However, results need to be interpreted with caution due to the low numbers in some of the groups – especially Avoidance and Attention/Communication. The analyses were repeated with the non-BT group but were not conducted with the LP-DSH group due to insufficient numbers.

Social (n = 8). As per the socially-motivated DSH results, those who indicated that they had a social reason for the first time they harmed scored significantly higher in Normalising of DSH ($F(1,80) = 6.603$, $p < .05$). They were also more likely to identify with the Gangsta group $\chi^2(1, n = 84) = 6.632$, $p < .05$) and to have harmed in front of others $\chi^2(1, n = 84) = 7.296$, $p < .01$) (see Figure 12). Unlike the previous results, they

were also more likely to have harmed with others $\chi^2(1, n = 84) = 5.523, p < .05$). All these results, with the exception of harming with others, still held when the BT group were excluded.

Emotional (n = 49). Participants whose first harming experience was for emotional reasons were more likely to identify with the Music group $\chi^2(1, n = 84) = 4.271, p < .05$) and were less likely to know other kids at school who self-harmed $\chi^2(1, n = 84) = 5.0, p < .05$) (see Figure 12). On the social influence scales, only Parent Influence was significantly different ($F(1,79) = 4.131, p < .05$) with first-time emotional harmers scoring lower than their counterparts. Schema scores for this group (see Figure 13) were significantly higher for Vulnerability ($F(1,80) = 13.345, p < .01$), Pessimism ($F(1,80) = 6.789, p < .05$) and Punitiveness ($F(1,80) = 9.887, p < .01$) and for the domain of Overvigilance/Inhibition ($F(1,80) = 5.832, p < .05$). No differences were found on the SDQ problem scales or in Normalising of DSH. Once the BT participants were excluded, only the Vulnerability schema, identification with group Music and knowing fewer other individuals at school who harmed, remained statistically significant.

Attention/Communication (n = 4). The only significant differences between this group and their counterparts were on the YSQ schema of Pessimism ($F(1,80) = 5.090, p < .05$) and on Emotional Reasons for DSH ($F(1,82) = 4.082, p < .05$), on both of which they scored significantly lower. There were no significant differences after exclusion of the BT group.

Avoidance (n = 1). This group were more likely to have sought medical attention for their harming $\chi^2(1, n = 84) = 11.133, p < .01$) and to have told a counsellor about their DSH $\chi^2(1, n = 84) = 4.655, p < .05$). No other significant differences were found between this group and other self-harmers.

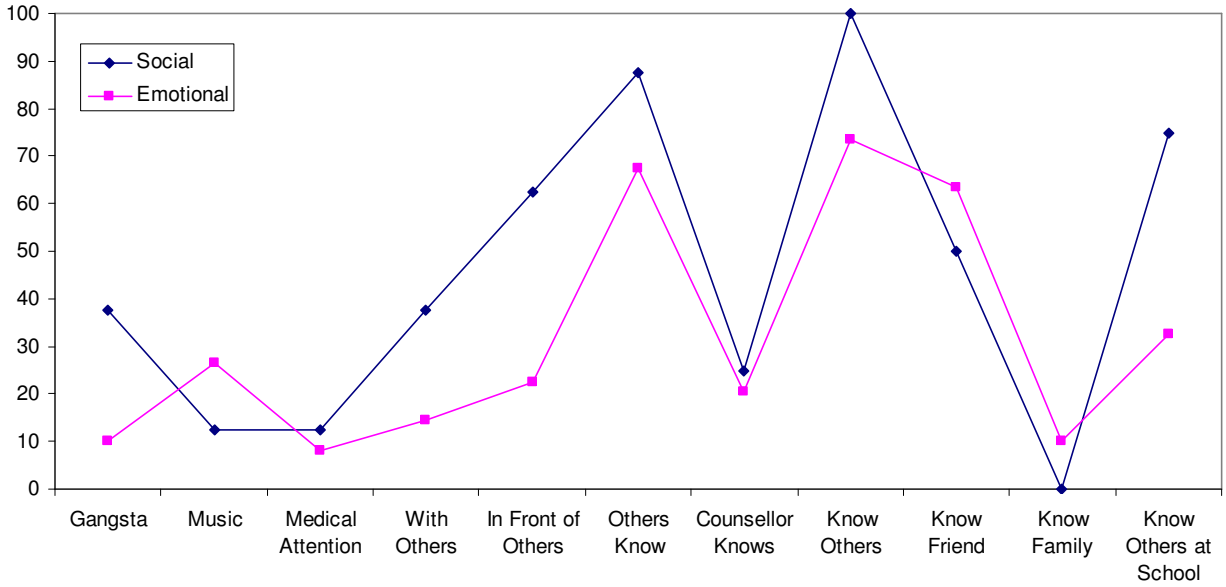
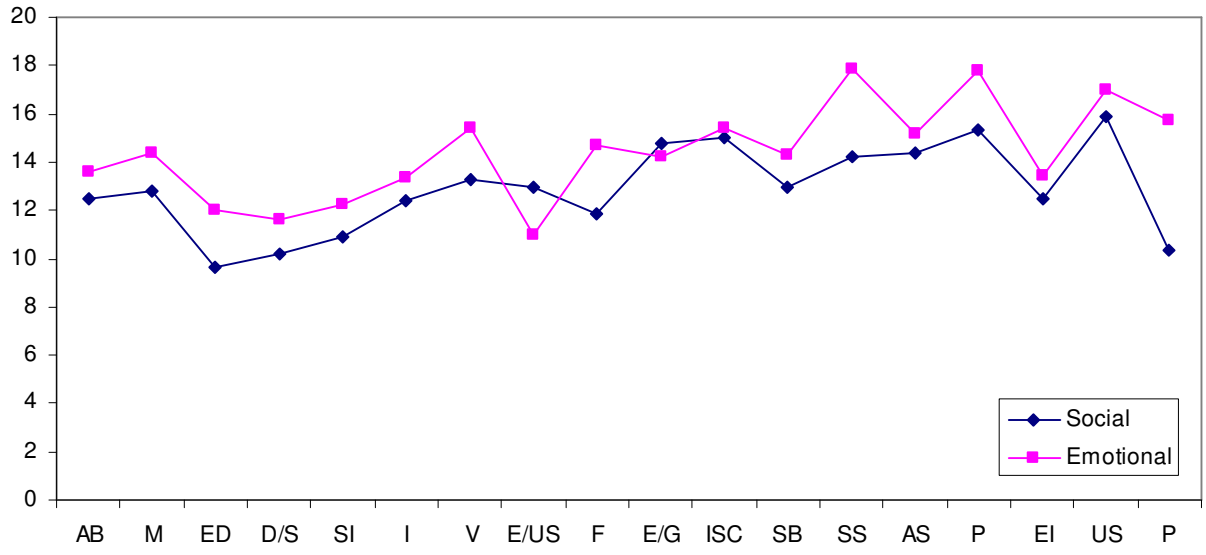


Figure 12. Percentage of first-time Social and first-time Emotional participants endorsing group belonging and DSH-specific items.



AB=Abandonment; M=Mistrust; ED=Emotional Deprivation; D/S=Defectiveness/Shame; SI=Social Isolation; I=Incompetence; V=Vulnerability to Harm; E/US=Enmeshment/Undeveloped Self; F=Failure; E/G=Entitlement/Grandiosity; ISC=Insufficient Self-Control; SB=Subjugation; SS=Self-Sacrifice; AS=Approval-Seeking; Pess=Pessimism; EI=Emotional Inhibition; US=Unrelenting Standards; P=Punitiveness.

Figure 13. Mean scores on YSQ maladaptive schemas for first-time Social and first-time Emotional self-harming participants.

Popularity

ANOVA analysis indicated that non-BT participants who identified with the Popular group had significantly higher scores those who did not classify themselves as Popular on the YSQ schema of Enmeshment ($F(1,66) = 7.336$, $p < .01$) and on the SDQ scales of Conduct Problems ($F(1,68) = 9.470$, $p < .01$) and Hyperactivity ($F(1,68) = 7.090$, $p < .05$). They also had significantly lower scores on the SDQ scales of Emotional Problems ($F(1,68) = 4.962$, $p < .05$) and Peer Problems ($F(1,68) = 10.097$, $p < .01$) (see Figure 14).

In respect of the DSH-specific scales, the Popular group had significantly lower scores on the Severity scale ($F(1,65) = 9.770$, $p < .01$) and were likely to have harmed less often ($F(1,68) = 4.073$, $p < .05$) than their non-Popular counterparts. Chi-square analysis revealed that the Popular group were less likely to still be harming $\chi^2(1, n = 65) = 5.450$, $p < .05$) than the non-Popular participants (see Figure 15). They were also significantly more likely to know someone else who harmed $\chi^2(1, n = 68) = 6.906$, $p < .01$) and the people they knew were more likely to be family members $\chi^2(1, n = 68) = 6.259$, $p < .05$).

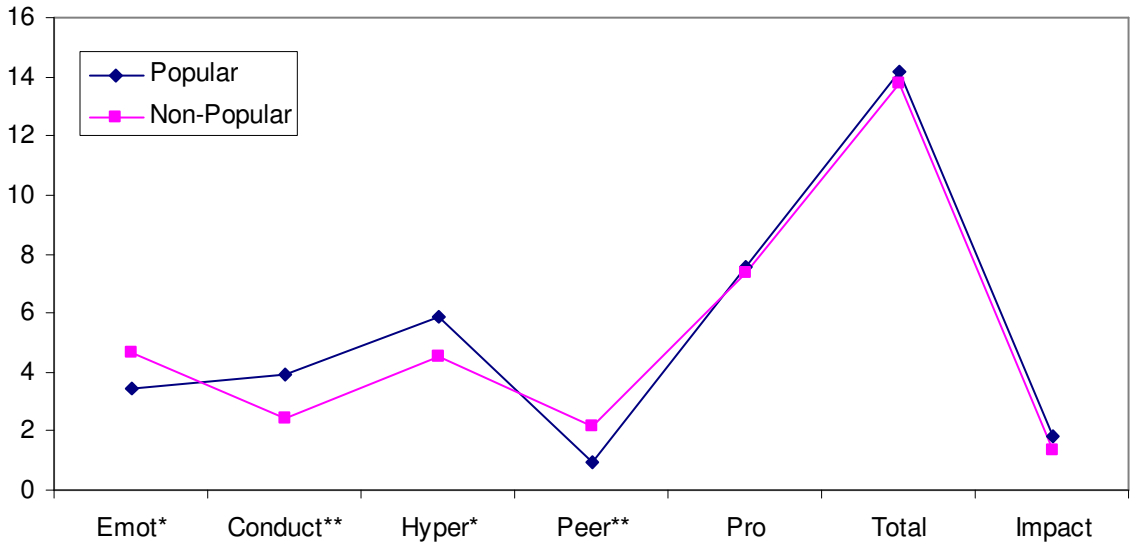


Figure 14. Mean scores on the SDQ scales for Popular and Non-Popular participants (*$p < .05$; **$p < .01$).

No significant differences were found between the Popular and Non-Popular groups in respect of Social Influence, Normalising, Secrecy, or Reasons for DSH.

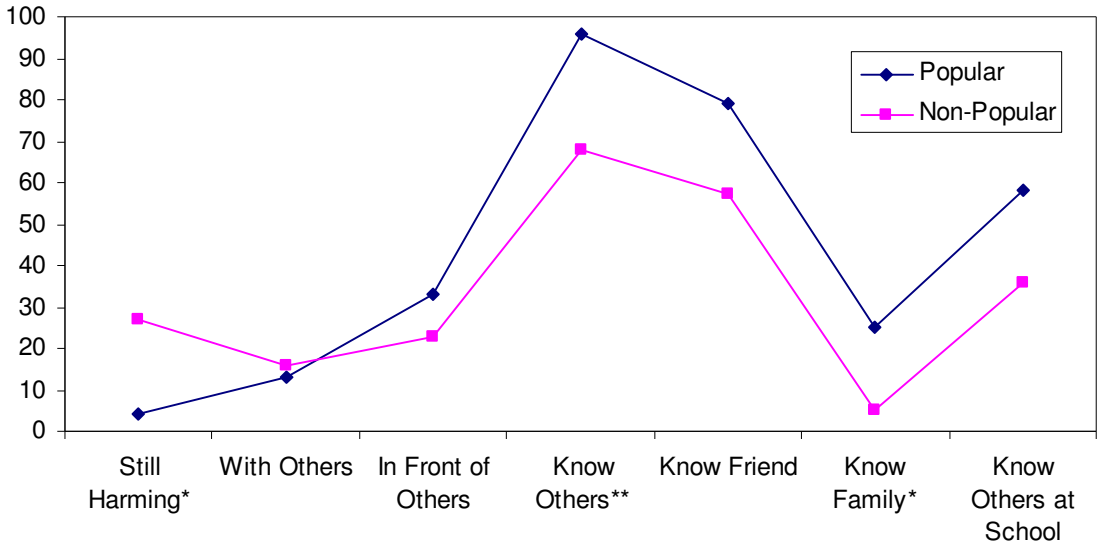


Figure 15. Percentage of Popular and Non-Popular participants endorsing DSH-specific items (*$p < .05$; **$p < .01$).

Chapter Eight: Discussion

The aims of this study were to examine social influence in relation to DSH and to explore differences between self-harmers who endorse social reasons for harming and non-socially motivated self-harmers. It was also hoped that this study would provide some insights into the potential for normalisation of DSH amongst adolescents. Comparisons were planned between those self-harmers with BPD traits and participants without BPD traits, and self-harmers without psychological difficulties compared to psychologically troubled self-harmers, in an attempt to understand the phenomenon of DSH among those who are less typical of what is understood to be the "usual" adolescent self-harmer.

The frequency of DSH in this study was just over 20% which is similar to rates reported previously in community samples (Hankin & Abela, 2011; Landstedt & Gadin, 2011; MacLaren & Best, 2010; O'Connor, Rasmussen, & Hawton, 2009; O'Connor et al., 2009; You et al., 2011). Although one of the schools had participants who were primarily students known to the guidance counsellor and, therefore, were more likely to be girls with psychological difficulties, the number of participants at that particular school was low in comparison to other schools, so the influence of this group should not have had a large impact on the overall results.

As has been found in a number of other studies (Favazza & Conterio, 1989; Madge et al., 2008; Ross & Heath, 2002) cutting was by far the most common form of DSH employed by the self-harming participants. However, unlike the study by Hawton, Harriss and Rodham (2010), cutters were no more likely than those who engaged in other methods of DSH to have friends who also self-harmed.

Schemas and Problem Scales

1. *How do DSH and non-DSH girls differ in terms of maladaptive schemas and psychological problems?*

Self-harmers scored higher on all of the SDQ problem and impact scales with the exception of Peer Problems. Emotional problems are seen as intrinsic to DSH and this was evident in the results of this study. What was unexpected, was that peer problems were comparatively low and equally as likely in self-harming participants as in non-self-harmers. Taken in conjunction with the greater identification with the Popular group by self-harmers, this tends to negate the stereotype of the socially awkward self-harming adolescent.

Self-harmers scored significantly higher on all of the maladaptive schemas and domains with the exception of Entitlement/Grandiosity, Approval-Seeking, and Unrelenting Standards. This was contrary to the finding by Castille et al. (2007) where only the schemas of Emotional Deprivation, Mistrust/Abuse, Social Isolation/Alienation and Insufficient Self-Control/Self-Discipline differentiated self-harmers from non-self-harmers. However, in their work with borderline personality disorder clients, Young et al. (2003) found that BPD clients typically endorsed almost all of the maladaptive schemas. Given the strong association between DSH and BPD, it is possible that a number of the participants in this study exhibited borderline traits which may have affected the results. However, when further analyses were conducted excluding those participants identified as having BPD traits, the self-harmers still scored significantly higher than the non-DSH participants on 10 of the 18 schemas and all of the schema domains (see below). This suggests that self-harmers, even those without BPD traits, still manifest some form of underlying psychological difficulties.

Further comparisons between DSH and non-DSH participants were made after dividing participants into Low Problem and High Problem groups. The LP-DSH group showed no difference at all with the non-DSH participants in terms of schemas. However, when Low Problem self-harmers were compared with Low Problem non-self-harmers, the self-harmers could be differentiated by their higher scores on the schemas of Vulnerability, Defectiveness and Subjugation. This might indicate that even though the LP-DSH participants are not endorsing current problems, they may still have underlying self-esteem issues which they might be managing with self-harm. When combined with high levels of vulnerability, these girls may be more susceptible to difficulties in the future.

Interestingly, when further analyses were conducted between the High Problem DSH and High Problem non-DSH participants (i.e. girls who had all scored in the Borderline or Abnormal range on the SDQ, indicating that they were all experiencing some difficulties in life) only the schemas of Abandonment, Vulnerability and Pessimism differentiated the two groups. These results suggest that feelings of rejection and powerlessness, together with a negative outlook on life, may be the elements which tip the balance toward self-harm in troubled adolescent girls.

Normalisation

2. *How normalised has DSH become among adolescent girls and what factors relate to the level of normalisation?*

It would be rather presumptuous to state that self-harm has become normalised, either by the mainstream or by those actually engaging in DSH. The results from this study show that while socially-motivated self-harmers were higher in their normalising of the behaviour than both other self-harmers and non-self-harmers, the overall mean

scores on the Normalising scale were low for all groups and only 7% felt that self-harm was a "normal thing that kids do". Nonetheless, nearly 30% of self-harmers indicated some level of agreement with statements that normalised self-harm and nearly 20% felt that harming was "no big deal". That over 40% of all participants considered that "lots of kids" engaged in self-harm lends support to a social influence effect, given that numerous studies have found that the belief that others are engaging in a behaviour influences an individual's engagement in that behaviour (see for example, Gibbons et al., 2010; Heilbron & Prinstein, 2008; Prinstein et al., 2010; Rolison & Scherman, 2003).

There was no difference in normalising of DSH between self-harmers and non-self-harming participants. There are a number of reasons why this may have occurred. Firstly, self-harming participants may have answered the specific normalising questions in a general manner which they perceived as being socially acceptable, despite their engagement in DSH. Secondly, it may be that the mean score for normalising has hidden differences by balancing out scores between subsets of the self-harming group. Alternatively, these girls may recognise that while they do in fact engage in self-harm, they do not feel it should be normal to have to hurt oneself.

The Normalising scale was positively correlated with the number of episodes of self-harm reported by the girls in this study. This is in line with Berger's (2008) model of social contagion which suggests that the more one is exposed to a trend, fad or behaviour, the more normalised it becomes. Interestingly, the Normalising scale showed no significant relationship with the number of people known who engaged in DSH. However, these results may have been affected by the fact that only self-harmers were asked how many other people they knew who engaged in self-harm. Presenting this question to non-self-harmers also would have been of benefit in determining any

relationship and would have added valuable information in the investigation of a social contagion element to DSH.

Socially-motivated self-harmers scored significantly higher on the normalising scale than other self-harmers and correlation analyses confirmed a positive relationship between social reasons for harming and normalising of DSH. However, it must be noted that the overall scores for normalising were still comparatively low, with most participants leaning toward the belief that DSH was not a "normal" behaviour. Interestingly, when individual responses to the scale items were analysed, the socially-motivated self-harmers were more likely to consider that DSH was "no big deal" but less likely to consider that "lots of kids do it". This suggests that although those with social reasons for harming are more tolerant of DSH, self-harming is still not considered a routine adolescent behaviour. Alternatively, it may indicate that these self-harmers see themselves as belonging to an exclusive club with limited membership.

There were no significant differences in scores on normalising of DSH between High Problem and Low Problem/non-BT participants. Given the expectation that those with fewer problems would have harmed on a fewer number of occasions, and the positive correlation between number of episodes of harm and normalising of DSH, this result was somewhat surprising. While both the Low Problem and non-BT groups had in fact harmed on fewer occasions, the difference being significant only for the non-BT group, this was not translated into lower levels of normalisation of DSH.

Secrecy

3. Does the level of secrecy around DSH differ between subgroups of self-harmers?

Contrary to what is commonly believed about DSH, most participants indicated that other people knew they self-harmed, a finding that is similar to that reported by

Heath et al. (2009). Interestingly, this appears to be in conflict with the fact that most participants endorsed the desire for high levels of secrecy about their self-harming behaviours. However, there was a greater need reported for secrecy from parents than from peers, and this may have skewed the secrecy results somewhat. It is also possible that while there was a general wish for secrecy, there was a willingness to discuss the harming with a close friend. The fact that most participants also knew others who harmed may indicate that the self-harm had been discussed with a friend who also harmed, and that the desire for secrecy was related to keeping the knowledge from non-self-harming peers.

The number of participants who had harmed in front of, or with, another person (23.8%), although similar to the reported rate by Heath and colleagues (2009), is nonetheless somewhat surprising and perhaps suggestive of increased normalisation of DSH among this age group. Shared acts of DSH among the clinical population have been described as exhilarating and are reported to serve as a bonding experience for individuals who have difficulty forming intimate relationships (Rosen & Walsh, 1989). In this community sample, sharing self-harm may also provide a method of connecting socially with like individuals, whether through selection effects or socialisation effects. This may fit within Nock's social signalling hypothesis, in that it may also serve as a means of eliciting support from those peers who appear to be able to relate to the distress being experienced by the individual (Nock, 2008).

There was a small difference in secrecy scores between the Social group and the non-Social group, with the Social group scoring lower than the non-Social group. However, the difference was not statistically significant and this may be a manifestation of the overall high levels of secrecy endorsed by all self-harming participants.

Peer and Parent Influence

4. a) *How do levels of peer and parent influence differ between self-harmers and non-self-harmers, and between subgroups of self-harmers?*

   b) *Is there a relationship between peer/parent influence and levels of difficulties experienced by adolescent girls?*

Self-harmers scored lower than non-self-harmers on scores of parental influence but were higher on scores of peer influence and peer pressure. As with previous studies which have found peer influence effects in risky behaviours (for example Potard et al., 2008; Prinstein et al., 2001; Rolison & Scherman, 2003), this finding lends support to the possibility that susceptibility to social influences may play a role in the decision to engage in self-harming behaviours in those adolescents who are experiencing difficulties in their lives and who have diminished parental participation. This is in line with item 6 of the tenets of social influence proposed by Brown et al. (2008) which states that "Peer influence is contingent on openness to influence" (p. 27).

While socially-motivated self-harmers were no more susceptible to overall peer influence than other self-harmers, they were more vulnerable to peer pressure. Although social contagion factors may be in evidence, these girls were more likely to succumb to influence through direct pressure from their friends. This may be in order to maintain a friendship or perhaps, as suggested by Nock (2008) as a signal of strength to their cohorts.

While the non-BPD-trait group scored lower in overall social influence than their BPD-trait counterparts, they did not differ significantly in their scores on the peer influence subscale. However, scores in parent influence were higher for the non-BT participants. Given that BPD is often associated with problematic relationships with primary caregivers in early life (Adrian, 2010; Adrian et al., 2011; Hankin & Abela,

2011; McMahon et al., 2010; Nock, 2010), it is not surprising that those girls with BPD traits would demonstrate lower parental influence.

There were no differences between the Low Problem and High Problem groups on the overall social influence scale or on any of the subscales. However, interesting correlations were shown between overall social influence and the SDQ and YSQ problem scales among the DSH group. Of note was that social influence was distinctly related to total problems experienced by these adolescents, a finding in keeping with previous studies which have found peer influence effects in antisocial and risky behaviours (see for example, Cohen & Prinstein, 2006; Dishion et al., 1996; Potard et al., 2008; Rolison & Scherman, 2003). Social influence was also significantly related to the schemas of Abandonment, Dependence and Failure. It is unclear, however, whether feelings of abandonment and failure lead to a greater susceptibility to social influence, or whether being predisposed to social influence creates the problems faced by these adolescents.

In addition to overall social influence, higher levels of parental influence were related to prosocial behaviours among the DSH group, while lower levels of parental influence were related to schemas of Defectiveness, Dependence and Failure, as well as to conduct problems. This supports previous findings which have shown that low parental input is related to higher levels of socially influenced antisocial behaviours (Steinberg, 1986).

Socially-Motivated DSH

5. *How do girls who endorse social reasons for DSH differ from non-socially motivated self-harmers?*

Of particular interest in this study was the exploration of socially motivated DSH. Results showed that the socially motivated DSH group were more likely to harm in front of other people. It may be that this is because of their inherently higher levels of normalisation of DSH, or it may be that harming in front of others has, in fact, increased their normalisation. Alternatively, it could be related to the fact that these girls were more likely to identify as Emo, where self-harm is, perhaps, a more acceptable form of behaviour than in the general domain (Scott & Chur-Hansen, 2008). Interestingly, the socially motivated self-harmers showed greater susceptibility to peer pressure although there was no difference in the reported number of people they knew who engaged in self-harm. Despite there being no significant difference in levels of psychological problems from the other self-harmers, these girls admitted a lower level of impact of their problems which could be related to their less pessimistic outlook on life. Their lower levels of Pessimism, Punitiveness and Overvigilance/Inhibition are somewhat surprising considering that the common perception of Emo adolescents is that they are emotional, vulnerable and misunderstood. However, while 86% of the Emo participants were in this group, the overall number of participants who identified as Emo was small, accounting for only 16% of the socially-motivated group, and consequently the results need to be interpreted prudently.

While there were a number of participants who endorsed a social reason for self-harming behaviour, the socially-motivated DSH participants were just as likely to also endorse emotional reasons, and were more likely than the non-Social group to indicate attention/communication reasons. This is supportive of the findings of Heath et al. (2009) who found that most participants did not exclusively endorse social reasons for DSH. For the majority of the Social group, the mean score on the Social Reasons scale was lower than their scores for other reasons. Therefore, assuming that an individual is

harming purely for social reasons is not justified and is likely to be counterproductive when attempting to understand the young person. It is, perhaps, not surprising that attention/communication reasons were endorsed in conjunction with social reasons, as these two scales were significantly correlated.

Interestingly, those participants who had their highest score on the Social Reasons scale showed a greater propensity toward conduct problems than those who had higher scores on the other Reason for DSH scales. However, the number of participants within this group were small so results need to be interpreted with caution.

Popularity

6. *Do girls who identify as being popular differ from other adolescents in terms of schemas, strengths and difficulties, and self-harming behaviours?*

Another aspect of note in the results was the significantly greater identification with the Popular group by the DSH participants. This is somewhat paradoxical in that the stereotyped image of an adolescent who engages in DSH is that of a girl who does not fit in and tends to be socially isolated (Klonsky, Muehlenkamp, Lewis, & Walsh, 2011). Nonetheless, despite their apparent popularity, these girls were still more likely to display hyperactivity and conduct problems according to their SDQ scores. However, they were less likely to have emotional or peer problems, less likely to still be harming, and less severe in their harming behaviours. It is possible that the acceptance garnered from their group affiliation and the resulting self-esteem this is likely to engender, serve as protective factors in respect of emotional issues. That these girls were higher in scores on the schema of Enmeshment, suggests that they likely have a greater need to fit in with their peers, which may in turn equate to mimicking their behaviours. It may also be suggestive of the contagion effects of a behaviour among those of perceived higher

status, as found by Cohen and Prinstein (2006) and is in keeping with principle 7 of Brown et al.'s (2008) tenets of social influence which states the "the impact of peer influence depends on the salience of those exerting influence" (p. 28).

Interestingly, while these girls showed no greater vulnerability to social influence than their non-popular counterparts, they were more likely to know others who harmed. This is, perhaps, a manifestation of the fact that popular people are likely to have contact with a greater number of people in the first place, and therefore this translates to an increased probability that some of these will be self-harmers. Alternatively, it may be a corollary of social contagion of DSH. Using Berger's (2008) identify signalling model, these girls may be termed the "hipsters' who may have adopted the self-harming behaviour from the marginalised outgroup (e.g. Emo), which may, in turn, lead to a greater incidence of DSH among the mainstream.

Borderline Traits

7. *In what way do self-harmers with BPD traits differ from those without BPD traits in terms of self-harming behaviours and schemas?*

In terms of severity of self-harm, the non-BT group scored significantly lower than the BT group on the severity index. They also showed significantly lower levels of endorsement of emotional reasons for harming than their BT counterparts, and correlation analyses indicated that emotional reasons for harming were positively related to severity of self-harm. These results are indicative of a more severe level of harming for those who exhibit BPD traits which is perhaps a reflection of their greater levels of psychological distress, as evidenced by their considerably higher impact scores on the SDQ.

While the non-BT group showed differences to the BT group on most schemas, especially those in the Disconnection/Rejection domain, there were no differences on, among others, the Insufficient Self-Control schema or the Impaired Limits domain. This is perhaps surprising given that these are traits that have traditionally been associated with BPD clients. Less surprising, was that the BT participants showed significantly higher levels of emotional problems, total problems and impact of problems than the non-BT group, and therefore these girls may be more likely to have been referred for psychological assistance. These results are in keeping with the study by Van Vlierberghe et al. (2010) which found that referred adolescents scored higher on maladaptive schemas than their non-referred counterparts.

Limitations

One of the limitations of this study was the fact that some of the measures used in this study differed from earlier versions, which made comparisons of results somewhat difficult. This included the YSQ, where the majority of the studies included in the literature have used the original version which incorporates only 15 schemas. Similarly, the FASM had been modified for this study so results were not necessarily comparable with findings from other studies. Additionally, in respect of the psychological instruments used, some of the CFA measures of fit were somewhat less than ideal for the YSQ and SDQ. Nonetheless, while the TLI and CFI were lower than expected, the RMSEA was sufficiently within acceptable limits to be able to proceed with analyses and have reasonable confidence in their validity.

Another limitation of the study was the method by which the BT participants were identified. Relying only on abandonment and emptiness/numbness scores may have resulted in a somewhat restricted selection. In analysing results and identifying those

BT girls, the preference was to err on the side of exclusion in order to avoid false positives. While it would have been preferable to build in a BPD-specific screen, increasing the length of the already large questionnaire was deemed inadvisable due to school time restrictions and participant fatigue.

A number of aspects of the questionnaire may have been improved in order to maximise the results. Firstly, only self-harmers were asked questions about whether they knew others who harmed. It may have provided additional information about social contagion if non-self-harmers had also been questioned about their knowledge of those who self-harm. Secondly, asking participants to state how they had self-harmed, rather than offering a checklist, resulted in a considerable number of "Not specified" responses. However, in order to limit any social contagion effect and to avoid providing participants with ideas for methods of self-harm, it was considered preferable to place these limitations on the questionnaire. Thirdly, by using only a self-report format with a single informant for the SDQ section, no collateral information was available from other sources. While use of multiple informants for the SDQ section may have added value, requiring parental/teacher responses for such a large number of girls may have reduced the number of participants.

One final limitation in this study was in respect of the participating schools. Although a number of schools from a variety of socio-economic levels were approached, all of the schools which agreed to participate had high decile ratings. This means that the results may be specific to this particular socio-economic group and may not, therefore, be able to be generalised to those in other socio-economic groups.

Clinical Implications

The results of this study have important implications in the clinical realm. Possibly one of the most important findings was that there is considerable variation between self-harmers and, therefore, clinicians should avoid the temptation to assume that every self-harmer has the same clinical profile. Conducting a thorough assessment of the self-harming behaviour is vital in order to instigate treatment strategies which are guided by the function the self-harm serves (Lloyd-Richardson et al., 2009; Scoliers et al., 2009). When it comes to treatment, "one size does not fit all".

The fact that there was a group of girls who had scores in the "normal" range for psychopathology and yet still engaged in self-harm, indicates that there is a subset of self-harmers who may go entirely undetected by school counsellors and other mental health support services. While it may be an indication that these girls have outgrown self-harming behaviours and/or psychological difficulties, their comparatively elevated schema scores for defectiveness, vulnerability and subjugation, together with their greater susceptibility to social influence, suggest that they may be in danger of being persuaded into engaging in other risky behaviours in the future. It may not be until this point that they come to the attention of care services. Although these girls may be classified as less severe in their harming behaviours than the more clinical self-harmers, any instance of self-harm is a signal that there may be other issues needing attention. Therefore, early identification of self-harmers, even those who do not appear to be psychologically distressed, is essential. Interventions which focus on self-esteem building and empowerment are likely to be beneficial for these adolescents, as focusing on the DSH may serve to create an iatrogenic effect of escalating the self-harm (Klonsky et al., 2011).

As initial identification of self-harming adolescents is often in the school setting, establishing preventative programmes in school should be encouraged (Hawton et al., 2003). Given the higher levels of social influence among those who engage in DSH, strategies need to minimise the possible effects of contagion of self-harm. Lieberman, Toste and Heath (2009) suggest that schools instigate policies which might include: discouraging self-harmers from revealing their scars or discussing self-harm details with others; refraining from discussing DSH in newsletters or other school communications; and avoidance of group-based interventions focusing on DSH. Students should be assessed individually in regard to self-harm and, where there is evidence of group harming behaviours, identification of the "alpha" student for more in-depth intervention may be beneficial. Interventions should focus on alternative coping strategies, empowerment and skills training (Mikolajczak et al., 2009; Wester & Trepal, 2005). Wester and Trepal (2005) offer a number of alternatives to DSH categorised by the function that the self-harm serves.

Although there was a faction of self-harmers who endorsed social motivations for self-harm, it is important that clinicians do not assume these are the only reasons underlying the self-harming behaviours. While there was a small minority of girls for whom social reasons were the most pertinent, all of the participants also endorsed emotional motivations for harm. Again, this emphasises the need for a thorough assessment and investigation into the underlying schemas or core beliefs, rather than assuming that the behaviour is purely socially motivated. The lower levels of pessimism of these girls is likely to be protective and should be incorporated into interventions which promote positive alternatives to self-harm.

This study supported previous findings in respect of the importance of parental involvement with adolescent girls, especially those engaging in self-harm. Self-harming

girls with higher parental influence experienced fewer emotional and conduct difficulties which suggests that parental involvement serves as a protective factor for adolescent girls. Encouraging parents to engage with their daughters outside of therapy or utilising family therapy sessions, should prove beneficial.

Although these findings show that DSH has not necessarily become "normal" among the adolescent population, there nevertheless appears to be evidence to suggest a trend towards the normalisation of this behaviour, especially among those who engage in socially-motivated self-harm. Given the implicit identification hypothesis, increased normalisation is of concern. The more normal the behaviour seems, the greater the likelihood of troubled adolescents engaging in the behaviour and, therefore, the more likely they are to identify themselves as self-harmers, thus perpetuating the DSH. What is encouraging is the overall low levels of normalisation which implies that for some girls at least, DSH may not be the first method of choice for distress relief and may not yet be an ingrained habit which is resistant to intervention.

Suggestions for Future Research

The results of this study raise some interesting possibilities for future research. Firstly, in this study parental influence was significantly related to conduct problems and was markedly lower for self-harming individuals. This raises the question, are the self-harming behaviours of these girls due to the lack of parental involvement, or is the lower parental input due to an inability to cope with the problematic behaviours being exhibited by these adolescents? Further research which explores the role and relationships of parents with self-harming daughters would be of interest. Longitudinal studies which track parental input with adolescents may add to the knowledge base

regarding specific parental risk factors which influence vulnerable girls into self-harming behaviours.

Another area of interest would be to further pursue the aspect of popularity with self-harming girls. Given the greater propensity of the self-harmers to identify with the "popular" group, and the finding that these girls were more likely to exhibit conduct problems, research which examines the dynamics of popularity in the school environment and how this translates into self-harming behaviours would be valuable.

This study found significant differences between subsets of self-harmers in terms of schemas and reported psychological difficulties. These findings are supportive of the move to establish a separate classification for DSH which is distinct from BPD. However, utilising a more formal BPD screen in future research would add weight to these findings and further advance our understanding of the dimensionality of DSH.

When comparing girls with self-reported high levels of difficulties, the features which distinguished self-harmers from their non-self-harming counterparts were increased social influence, lower parental influence and the schemas of abandonment, vulnerability and pessimism. It may be that these are the critical factors which tip the balance toward self-harm when girls are experiencing significant difficulties in their lives. Further research exploring these aspects may add to our knowledge of risk factors for DSH.

As was found in recent studies (Heath et al., 2009; Nock, 2008), a number of girls endorsed social motivations for DSH. However, as expected, these girls also endorsed other reasons for harming. While the current study asked for frequency of engaging in self-harm for the listed reasons, it would be useful to have participants rank the importance of the various reasons in addition to the frequency. This would enable the

functions to be weighted according to importance, which may provide another dimension of knowledge about the functions of DSH for these girls.

The astonishingly high number of girls who had friends who engaged in self-harm provides evidence of homophily yet the exact nature of this association, or whether socialisation or selection effects are at play, is unclear. Examining the origins and underlying characteristics, such as the perceived similarities or benefits of these friendships, would be useful.

Continued monitoring of the levels of normalisation of DSH in adolescent girls is essential. Although these levels still appear to be comparatively low, any increase in perception that self-harm is a routine and acceptable behaviour is likely to lead to further escalation of the rates of DSH among youngsters who may not otherwise choose to engage in this behaviour.

Conclusion

This study adds to the growing body of literature exploring DSH and augments our knowledge about the diversity within self-harmers. While there has been a tendency by some to dismiss socially-motivated self-harm as attention-seeking, the findings from this study indicate that those adolescent girls who endorse social motivations for harming do not do so exclusively, and are just as likely to espouse emotional relief as a reason for harming. Similarly, those self-harmers who do not fit the more clinical self-harming profile, although exhibiting fewer maladaptive schemas and life difficulties than other self-harmers, may nonetheless be at risk of becoming habitual self-harmers unless they are provided with sound alternatives to self-harm. School programmes which are strength-based are likely to tap into the more positive outlook of the girls.

Assessment on a case-by-case basis is essential, and interventions which are function-based and encourage greater parental involvement are likely to be most efficacious.

The evidence suggests that continued efforts to limit the publicity and discussion about self-harm are warranted in order to minimise the effects of social contagion. This is particularly so given the large number of girls who know others who harm and the greater susceptibility of these girls to social influence. Given that repeated exposure increases normalisation and the likelihood of engaging in a behaviour, together with the positive correlation between normalising of DSH and severity of harm, it is essential that efforts are made to continue to maintain the low levels of normalisation of DSH in this vulnerable age group.

In conclusion, in answer to the question "Has cutting become cool?", it would appear from the results of this research that it has not. Although popular students may be engaging in the behaviour, the overall opinion, even amongst those girls, is that DSH is perceived in a negative light by adolescents. While there is evidence to support a social motivation for self-harm and a lack of diagnosable psychopathology among some self-harming teens, nonetheless it seems clear that there is a great deal of negative emotional affect underlying self-harming behaviours.

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Appendix A – Letter to Schools

Massey University
COLLEGE OF HUMANITIES AND SOCIAL SCIENCES
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1 October 2009

The Principal and School Counsellor

PRIVATE & CONFIDENTIAL

Dear Sir/Madam

DOCTORAL STUDY – INVITATION FOR SCHOOL PARTICIPATION
'Deliberate Self-Harm, Social Contagion And Maladaptive Schemas In Adolescents'

My name is Shelley James. I am a doctoral student at Massey University currently completing my DClinPsych (Doctorate of Clinical Psychology). As part of the requirements for my degree I am conducting a research study. This study is investigating the extent and nature of social contagion in relation to deliberate self-harm (DSH). My contact details, and those of my supervisor, are overleaf.

As you are probably aware, studies to date have shown that the estimates of DSH have increased over the last decade with adolescent girls being disproportionately represented amongst those who self-harm. However, most of the studies exploring the motivations for engaging in DSH, have placed little or no emphasis on peer influence or social contagion effects. A number of recent reviews of DSH have suggested that peer contagion may be a contributory factor toward the rising rate of DSH among adolescents. My study, therefore, aims to determine the extent of any social contagion effects which may be contributing to the increased rates of adolescent DSH, as well as discovering whether DSH has become a normalised behaviour for adolescent girls. This information may be valuable to clinicians in selecting treatment options for affected young people, and in turn beneficial to those adolescents. It may also be beneficial to your school counsellor in managing DSH and in highlighting the extent of any DSH within your own school.

The study takes the form of an anonymous, confidential questionnaire which can be completed via either a paper- or computer-based method, depending upon the facilities available at each school. My intention is to oversee the completion of the questionnaire by participants should you agree to the participation of your school. I aim to gather 2,000 completed questionnaires from secondary school girls within the North Auckland area (both self-harming and non-self-harming students). It is my intention to provide parents with information about the study, asking them to advise the school by a specified date if they **do not** wish their daughter to participate. On or after the specified date I would like to address all female students within the school, together with the school counsellor, in introducing the study and inviting students to voluntarily participate. The research will be introduced as a study about how female students think and feel about things in their lives.

I would very much like for your school to participate in this research. At this stage, I am writing to secondary schools within the North Auckland area, in the hope of obtaining their tentative interest. In expressing your initial interest, you will not be obliged to agree to take part. If you would like to find out more about this study, or are willing to participate, I will send you a full information pack.

I would very much like to meet with you both to discuss my research and to answer any queries that you may have. In the meantime, please do not hesitate to contact me if you have any questions or comments.

I look forward to hearing from you.

Yours faithfully

Shelley A James, BA (Hons)

If you have any queries about this study or would like to discuss any aspects in more detail, you may contact either myself or my principal research supervisor. Contact details are as follows:

Researcher
Shelley James
305 Rangatira Road
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Email: shelleyjames@ihug.co.nz
Ph: (09) 483 7609
Mobile: (021) 914 317

Principal Supervisor
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Senior Lecturer
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Massey University
Private Bag 102 904
North Shore Mail Centre
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Ph: (09) 414 0800 Extn 41213

Appendix B – Questionnaire

Section A

1. Age: _____
2. School: _____
3. No. of brothers/sisters: _____
4. No. of close friends_____

5. I mainly live with (choose only one):

☐ My parents ☐ My mum ☐ My dad

☐ Other relatives

☐ Other (*please specify)* _____

6. I consider myself part of the following groups (tick all that apply):

☐ Emo ☐ Popular ☐ Drama ☐ Music

☐ Gangsta ☐ Sporty ☐ Computer Geek ☐ Environmentalist

☐ Brainiac ☐ Nerd ☐ Cheerleader ☐ Science

☐ None

☐ Other (*please specify)* _____

Section B

INSTRUCTIONS:
For each item, indicate how true you think the statement is using the scale below. It would help if you answered all items as best you can even if you are not absolutely certain . Please give your answers on the basis of **how things have been for you over the last six months**.

0 Not true	1 Somewhat true	2 Certainly true

1.	I try to be nice to other people. I care about their feelings	
2.	I am restless, I cannot stay still for long	
3.	I get a lot of headaches, stomach-aches or sickness	
4.	I usually share with others, for example CD's, games, food	
5.	I get very angry and often lose my temper	
6.	I would rather be alone than with people of my age	
7.	I usually do as I am told	
8.	I worry a lot	
9.	I am helpful if someone is hurt, upset or feeling ill	
10.	I am constantly fidgeting or squirming	
11.	I have one good friend or more	
12.	I fight a lot. I can make other people do what I want	
13.	I am often unhappy, depressed or tearful	
14.	Other people my age generally like me	
15.	I am easily distracted, I find it difficult to concentrate	
16.	I am nervous in new situations. I easily lose confidence	
17.	I am kind to younger children	
18.	I am often accused of lying or cheating	
19.	Other children or young people pick on me or bully me	
20.	I often volunteer to help others (parents, teachers, children)	
21.	I think before I do things	
22.	I take things that are not mine from home, school or elsewhere	
23.	I get along better with adults than with people my own age	
24.	I have many fears, I am easily scared	
25.	I finish the work I'm doing. My attention is good	

26. Overall, do you think that you have difficulties in one or more of the following areas: emotions, concentration, behaviour or being able to get on with other people?

No	Yes minor difficulties	Yes definite difficulties	Yes severe difficulties
☐	☐	☐	☐

If you answered "No", go to Q31

If you answered "Yes", please answer the following questions about these difficulties.

27. How long have these difficulties been present?

Less than a month	1-5 months	6-12 months	Over a year
☐	☐	☐	☐

28. Do the difficulties upset or distress you?

Not at all	Only a little	Quite a lot	A great deal
☐	☐	☐	☐

29. Do the difficulties interfere with your everyday life in the following areas?

	Not at all	Only a little	Quite a lot	A great deal
Home life	☐	☐	☐	☐
Friendships	☐	☐	☐	☐
Classroom learning	☐	☐	☐	☐
Leisure activities	☐	☐	☐	☐

30. Do the difficulties make it harder for those around you (family, friends, teachers, etc)?

Not at all	Only a little	Quite a lot	A great deal
☐	☐	☐	☐

31. Have you ever physically harmed yourself on purpose?

☐ No **Go to Section D on page 7**

☐ Yes **Go to Section C on page 4**

Section C

1. What did you do to hurt yourself? _____
2. How many times have you done this?
   ☐ 1 ☐ 2-5 ☐ 6-10 ☐ 10+
3. How old were you the first time you did this? _____
4. Do you still do this? ☐ Yes ☐ No
5. How often do you do this?
   ☐ Daily ☐ 2-3 times a week ☐ 2-3 times a month
   ☐ 2-3 times a year ☐ Less than once a year
6. When was the most recent time you did this?
   ☐ This week ☐ Last week ☐ Last month
   ☐ Last 6 months ☐ More than a year ago
7. Have you ever needed medical attention for your injury? ☐ Yes ☐ No
   If yes, how many times? _____
8. Have you ever talked to a counsellor or therapist about this? ☐ Yes ☐ No
9. Do other people know that you do this? ☐ Yes ☐ No
   a) If yes, who?
   ☐ friends ☐ family ☐ teacher(s)
   ☐ counsellor/therapist ☐ other *(specify)* _____
10. Have you ever done this in front of someone else? ☐ Yes ☐ No
11. Have you ever done this together with someone else? ☐ Yes ☐ No
12. Do you know of anyone else who also does this? ☐ Yes ☐ No
    a) If yes, how many?
    ☐ 1-2 ☐ 3-5 ☐ 6-10 ☐ 10+
    b) Are they…
    ☐ friends ☐ family ☐ others kids at school
    ☐ other *(specify)* _____

(don't name anyone)

Using the scale below, indicate how often you have harmed yourself for the following reasons.

0 Never	1 Rarely	2 Sometimes	3 Often

13.	To avoid school, work, or other activities	
14.	To relieve feeling "numb" or empty	
15.	To get attention	
16.	To feel something, even if it was pain	
17.	To avoid having to do something unpleasant you don't want to do	
18.	To get control of a situation	
19.	To try to get a reaction from someone, even if it's a negative reaction	
20.	To receive more attention from your parents and friends	
21.	To avoid being with people	
22.	To punish yourself	
23.	To get other people to act differently or change	
24.	To be like someone you respect	
25.	To avoid punishment or paying the consequences	
26.	To stop bad feelings	
27.	To let others know how desperate you were	
28.	To feel more a part of a group	
29.	To get your parents to understand or notice you	
30.	To give yourself something to do when alone	
31.	To give yourself something to do when with others	
32.	To get help	
33.	To make others angry	
34.	To feel relaxed	
35.	To prove that you were brave	
36.	To hurt yourself instead of hurting someone else	
37.	To be different from everyone else	
38.	To see what it was like	
39.	Because your friends do it	
40.	Other *(specify)*	

41. From the reasons listed above, what was the **main** reason the **first** time you hurt yourself? _____

Using the scale below, indicate how much you agree or disagree with the following statements about self-harm

0 Totally disagree	1 Disagree a lot	2 Disagree a little	3 Agree a little	4 Agree a lot	5 Totally agree

42.	I don't mind if my friends know that I do this	
43.	I don't mind if other kids at school know that I do this	
44.	I don't mind if my parents know that I do this	
45.	If anyone found out that I did this I would be upset	
46.	It is important that other people know that I do this	
47.	Everyone in my group does this	
48.	Other people will accept me if I do this	

49. If my parents found out that I do this they would react with (tick all that apply):

☐ praise	☐ disgust	☐ concern	☐ anger
☐ sadness	☐ caring	☐ embarrassment	☐ happiness
☐ humour	☐ horror	☐ jealousy	☐ distress
☐ fear	☐ surprise	☐ relief	☐ "whatever?!"

50. If my friends found out that I do this they would react with (tick all that apply):

☐ praise	☐ disgust	☐ concern	☐ anger
☐ sadness	☐ caring	☐ embarrassment	☐ happiness
☐ humour	☐ horror	☐ jealousy	☐ distress
☐ fear	☐ surprise	☐ relief	☐ "whatever?!"

51. If other kids at school found out that I do this they would react with (tick all that apply):

☐ praise	☐ disgust	☐ concern	☐ anger
☐ sadness	☐ caring	☐ embarrassment	☐ happiness
☐ humour	☐ horror	☐ jealousy	☐ distress
☐ fear	☐ surprise	☐ relief	☐ "whatever?!"

Section D

Using the scale below, indicate how much you agree or disagree with the following statements about self-harm

0 Totally disagree	1 Disagree a lot	2 Disagree a little	3 Agree a little	4 Agree a lot	5 Totally agree

1.	Lots of kids do it	
2.	It is just a normal thing that kids do	
3.	I don't really mind if other kids do it	
4.	I would be worried if someone I knew was doing it	
5.	Doing it is no big deal	
6.	Only cool kids do it	
7.	Kids who do it are considered tough	
8.	Kids who do it are considered strange	
9.	Kids who do it are considered sad	

Using the same scale indicate how much you agree or disagree with the following statements

10.	It is important to be part of a group	
11.	Being part of a group means you have to do the things the other kids do	
12.	My parents and I have the same beliefs and values	
13.	I have the same beliefs and values as my friends	
14.	My parents have more influence than my friends about my beliefs and values	
15.	I do not care what my parents think of the people I date	
16.	It is important what my friends think about the people I date	
17.	My friends' opinions about the people I date are more important than my parents' opinions	
18.	In general, I am more influenced by my friends than my parents	
19.	Overall I am more influenced by my parents than my friends	
20.	My parents have more influence than my friends on who I am as a person	
21.	I am more worried about what other kids think than what my parents think	
22.	If I didn't want to skip school but my friends wanted me to, I wouldn't do it	

0 Totally disagree	1 Disagree a lot	2 Disagree a little	3 Agree a little	4 Agree a lot	5 Totally agree

23.	I would have an alcoholic drink, even though I didn't want it, if my friends wanted me to have it	
24.	I would take drugs, even if I didn't want to, if my friends were doing it and wanted me to do it too	
25.	I would do something I didn't want to do if my friends were pressing me to do it	

Section E

Instructions: Listed below are statements that people might use to describe themselves. Please read each statement, then rate it based on how accurately it fits you ***over the past year***. When you are not sure, base your answer on what you ***emotionally feel***, not on what you think to be true.

A few of the items ask about your relationships with your parents or romantic partners. If any of these people have died, please answer these items based on your relationships when they were alive. If you do not currently have a partner but have had partners in the past, please answer the item based on your most recent significant romantic partner.

Choose the **highest score from 1 to 6** on the rating scale below that best describes you, then write your answer in the box after each statement.

RATING SCALE

1 = Completely untrue of me	**4 = Moderately true of me**
2 = Mostly untrue of me	**5 = Mostly true of me**
3= Slightly more true than untrue	**6 = Describes me perfectly**

1.	I haven't had someone to nurture me, share him/herself with me, or care deeply about everything that happens to me.	
2.	I find myself clinging to people I'm close to because I'm afraid they'll leave me.	
3.	I feel that people will take advantage of me.	
4.	I don't fit in.	
5.	No boy/girl I desire could love me once he or she saw my defects or flaws.	
6.	Almost nothing I do at school (or work) is as good as other people can do.	
7.	I do not feel capable of getting by on my own in everyday life.	
8.	I can't seem to escape the feeling that something bad is about to happen.	
9.	I have not been able to separate myself from my parent(s) the way other people my age seem to.	
10.	I think that if I do what I want, I'm only asking for trouble.	
11.	I'm the one who usually ends up taking care of the people I'm close to.	
12.	I am too self-conscious to show positive feelings to others (e.g., affection, showing I care).	
13.	I must be the best at most of what I do; I can't accept second best.	
14.	I have a lot of trouble accepting "no" for an answer when I want something from other people.	
15.	I can't seem to discipline myself to complete most routine or boring tasks.	
16.	Having money and knowing important people make me feel worthwhile.	

1 = Completely untrue of me	**4 = Moderately true of me**
2 = Mostly untrue of me	**5 = Mostly true of me**
3= Slightly more true than untrue	**6 = Describes me perfectly**

17.	Even when things seem to be going well, I feel that it is only temporary.	
18.	If I make a mistake, I deserve to be punished.	
19.	I don't have people to give me warmth, holding, and affection.	
20.	I need other people so much that I worry about losing them.	
21.	I feel that I cannot let my guard down in the presence of other people, or else they will intentionally hurt me.	
22.	I'm fundamentally different from other people.	
23.	No one I desire would want to stay close to me if he or she knew the real me.	
24.	I'm incompetent when it comes to achievement.	
25.	I think of myself as a dependent person when it comes to everyday functioning.	
26.	I feel that a disaster (natural, criminal, financial, or medical) could strike at any moment.	
27.	My parent(s) and I tend to be over-involved in each other's lives and problems.	
28.	I feel as if I have no choice but to give in to other people's wishes, or else they will retaliate, get angry, or reject me in some way.	
29.	I am a good person because I think of others more than myself.	
30.	I find it embarrassing to express my feelings to others.	
31.	I try to do my best; I can't settle for "good enough".	
32.	I'm special and shouldn't have to accept many of the restrictions or limitations placed on other people.	
33.	If I can't reach a goal, I become easily frustrated and give up.	
34.	Accomplishments are most valuable to me if other people notice them.	
35.	If something good happens, I worry that something bad is likely to follow.	
36.	If I don't try my hardest, I should expect to lose out.	
37.	I haven't felt that I am special to someone.	
38.	I worry that people I feel close to will leave me or abandon me.	
39.	It is only a matter of time before someone betrays me.	
40.	I don't belong; I'm a loner.	
41.	I'm unworthy of the love, attention, and respect of others.	
42.	Most other people are more capable than I am in areas of school (or work) and achievement.	
43.	I lack common sense.	
44.	I worry about being physically attacked by people.	
45.	It is very difficult for my parent(s) and me to keep intimate details from each other without feeling betrayed or guilty.	
46.	In relationships, I usually let the other person have the upper hand.	
47.	I'm so busy doing things for the people that I care about that I have little time for myself.	
48.	I find it hard to be free-spirited and spontaneous around other people.	

1 = Completely untrue of me	**4 = Moderately true of me**
2 = Mostly untrue of me	**5 = Mostly true of me**
3= Slightly more true than untrue	**6 = Describes me perfectly**

49.	I must meet all my responsibilities.	
50.	I hate to be constrained or kept from doing what I want.	
51.	I have a very difficult time sacrificing immediate gratification or pleasure to achieve a long-range goal.	
52.	Unless I get a lot of attention from others, I feel less important.	
53.	You can't be too careful; something will almost always go wrong.	
54.	If I don't do the job right, I should suffer the consequences.	
55.	I have not had someone who really listens to me, understands me, or is tuned into my true needs and feelings.	
56.	When someone I care for seems to be pulling away or withdrawing from me, I feel desperate.	
57.	I am quite suspicious of other people's motives.	
58.	I feel alienated or cut off from other people.	
59.	I feel that I am not lovable.	
60.	I'm not as talented as most people are at their work.	
61.	My judgment cannot be counted on in everyday situations.	
62.	I worry that I'll lose all my money and become destitute or very poor.	
63.	I often feel as if my parent(s) are living through me – that I don't have a life of my own.	
64.	I've always let others make choices for me, so I really don't know what I want for myself.	
65.	I've always been the one who listens to everyone else's problems.	
66.	I control myself so much that many people think I am unemotional or unfeeling.	
67.	I feel that there is constant pressure for me to achieve and get things done.	
68.	I feel that I shouldn't have to follow the normal rules or conventions that other people do.	
69.	I can't force myself to do things I don't enjoy, even when I know it's for my own good.	
70.	If I make remarks at a meeting, or am introduced in a social situation, it's important for me to get recognition and admiration.	
71.	No matter how hard I work, I worry that I could be wiped out financially and lose almost everything.	
72.	It doesn't matter why I make a mistake. When I do something wrong, I should pay the consequences.	
73.	I haven't had a strong or wise person to give me sound advice or direction when I'm not sure what to do.	
74.	Sometimes I am so worried about people leaving me that I drive them away.	
75.	I'm usually on the lookout for people's ulterior or hidden motives.	
76.	I always feel on the outside of groups.	
77.	I am too unacceptable in very basic ways to reveal myself to other people or to let them get to know me well.	
78.	I'm not as intelligent as most people when it comes to school (or work).	

1 = Completely untrue of me	**4 = Moderately true of me**
2 = Mostly untrue of me	**5 = Mostly true of me**
3= Slightly more true than untrue	**6 = Describes me perfectly**

79.	I don't feel confident about my ability to solve everyday problems that come up.	
80.	I worry that I'm developing a serious illness, even though nothing serious has been diagnosed by a doctor.	
81.	I often feel I do not have a separate identity from my parent(s) or partner.	
82.	I have a lot of trouble demanding that my rights be respected and that my feelings be taken into account.	
83.	Other people see me as doing too much for others and not enough for myself.	
84.	People see me as uptight emotionally.	
85.	I can't let myself off the hook easily or make excuses for my mistakes.	
86.	I feel that what I have to offer is of greater value than the contributions of others.	
87.	I have rarely been able to stick to my resolutions.	
88.	Lots of praise and compliments make me feel like a worthwhile person.	
89.	I worry that a wrong decision could lead to disaster.	
90.	I'm a bad person who deserves to be punished.	

Appendix C –Information Sheets & Consent Forms

C1. School Information Sheet

Massey University
COLLEGE OF HUMANITIES AND SOCIAL SCIENCES
Te Kura Pūkenga Tangata

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Deliberate Self-Harm, Social Contagion and Maladaptive Schemas in Adolescents

INFORMATION SHEET FOR SCHOOLS

My name is Shelley James. I am a doctoral student at Massey University currently completing my DClinPsych (Doctor of Clinical Psychology). As part of the requirements for my degree I am conducting a research study. This study is investigating the extent and nature of social contagion in relation to deliberate self-harm (DSH).

Introduction

The literature shows that estimates of DSH have increased over the last decade and that adolescent girls are disproportionately represented amongst those who self-harm. Adolescence is a time when peer relationships become increasingly important to young people and where the behaviour of friends and cliques has greater influence on the behaviour of individuals. Studies exploring the motivations for engaging in DSH have placed little or no emphasis on peer influences or social contagion effects. A number of recent reviews of DSH have suggested that peer contagion may be a contributory factor toward the rising rate of DSH among adolescents. The increased media attention on DSH, the availability of internet forums for discussion of DSH-related topics, and the high visibility of groups engaging in DSH, suggest that contagion effects and normalising of behaviours once considered deviant, may be factors playing a role in the increase in adolescent DSH.

The aims of this study are to determine the extent of any social contagion effects which may be contributing to the increased rates of adolescent DSH, to investigate underlying belief systems and mental health issues of both self-harming and non-self-harming participants which may be related to DSH, and to discover whether DSH has become a normalised behaviour for adolescent girls. This information will be valuable to clinicians selecting treatment options for affected young people. As DSH is often kept secret, the results of this study will help you determine the extent of DSH in your school, as well as provide participants with support resource information.

I would very much like your school to participate in this research. A summary of the procedure for the study is outlined below.

Procedure

I am looking to recruit 2000 girls from secondary schools in North Auckland. A conservative estimate of DSH in adolescent girls is 10%. Therefore, I expect approximately 200 self-harming participants with the remainder serving as controls. The study will be introduced to parents and participants as a survey of how teenagers think and feel about things in their lives. Disclosing the exact focus of the study may bias the results in relation to who participates and the answers given to various sections of the questionnaire which do not relate to DSH. Minimising the amount of direct reference to DSH and requiring only those who engage in DSH to complete the DSH section, should also reduce any social contagion effects which may occur.

The survey is open to all girls within the school. As many of these students will be aged under 16, a notice will be sent to parents introducing the study and asking that they advise the school by a specified date if they do not wish their daughter to participate. An address by myself (or the school guidance counsellor) to female students would then introduce the study and students would be invited to voluntarily participate. No students would have to identify themselves as self-harmers except within the questionnaire, which is anonymous.

The survey is a paper-based questionnaire which would take approximately 40 minutes to complete. Immediately following introduction of the study, a pre-printed questionnaire will be handed out to all students expressing an interest in participating. The researcher and an assistant will be present

This project has been reviewed and approved by the Massey University Human Ethics Committee: Northern, Application 09/041. If you have any concerns about the conduct of this research, please contact Dr Denise Wilson, Chair, Massey University Human Ethics Committee: Northern, telephone 09 414 0800 x9070, email humanethicsnorth@massey.ac.nz.

during the administration of the questionnaire in order to answer any questions which may arise and will collect the questionnaires upon completion.

Upon completion of the questionnaire all participants will receive a resource sheet providing contact information for support, should they desire it. This includes telephone hotline numbers, web support sites and forums, tips for managing difficulties in a healthy manner, the contact email address for the researcher, and a suggestion to talk to the school counsellor for face-to-face support. Therefore, the willingness of the school counsellor to be involved is an essential element of this study.

Data Management

Data collected from this study will be used for my doctoral thesis and for publication in a psychological journal. All data will be held in a secure environment at Massey University and disposed of by the senior supervisor after the requisite period. Only those directly involved in the administration or supervision of this study will have access to this data. Upon completion of this study, your school will receive a summary of findings, as well as data regarding the number of students engaging in DSH at your school. A resource document for staff providing information about how to manage DSH will also be supplied to the school. At no time will your school be identified in any research reports, or will information regarding DSH in your school be revealed to other participating schools.

Project Contacts

If you have any queries about this study or would like to discuss any aspects in more detail, you may contact either myself, or one of my research supervisors. Contact details are as follows:

Researcher
Shelley James
(09) 483 7609
shelleyjames@ihug.co.nz

Supervisors

Dr Richard Fletcher	Dr Heather Buttle	Dr Kerry Gibson
(09) 414 0800 Extn 41213	(09) 414 0800 Extn 41221	(09) 441 8175
R.B.Fletcher@massey.ac.nz	H.Buttle@massey.ac.nz	K.L.Gibson@massey.ac.nz

School of Psychology, Massey University, Private Bag 102 904, North Shore Mail Centre

This project has been reviewed and approved by the Massey University Human Ethics Committee: Northern, Application 09/041. If you have any concerns about the conduct of this research, please contact Dr Denise Wilson, Chair, Massey University Human Ethics Committee: Northern, telephone 09 414 0800 x9070, email humanethicsnorth@massey.ac.nz.

C2. School Consent Form

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Auckland 0745
New Zealand
T 64 9 441 0800 extn 41244
F 64 9 441 0831
www.massey.ac.nz

Deliberate Self-Harm, Social Contagion and Maladaptive Schemas in Adolescents

SCHOOL PARTICIPATION CONSENT FORM

I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I agree for my school to participate in this study under the conditions set out in the Information Sheet.

PRINCIPAL'S SIGNATURE

Signature: ..... **Date:** .....

Full Name - printed .....

Name and address of School

.....

COUNSELLOR'S SIGNATURE

Signature: ..... **Date:** .....

Full Name - printed .....

C3. Participant Information Sheet

Massey University
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www.massey.ac.nz

How Teenage Girls Think and Feel
About Themselves and Things in Their Lives

INFORMATION SHEET FOR PARTICIPANTS

My name is Shelley James. I am a doctoral student at Massey University currently completing my DClinPsych (Doctor of Clinical Psychology). As part of the requirements for my degree I am conducting a research study. This study is investigating how teenage girls think and feel about themselves and things in their lives.

In order to protect your privacy, all information collected from this questionnaire, which takes about 40-45 minutes to complete, is **anonymous** and will at all times be treated as **confidential**. The data collected will be used solely for the purpose of this study and will not at any time be passed to anyone who is not a member of the research project.

If you are willing to take part in this project, please complete the questions on the following pages and return the questionnaire to me. By filling in the questionnaire and returning it to me, you are giving your **consent to voluntarily participate** in this study. You are completely **free to refuse to answer any particular questions** and to **choose not to complete a questionnaire** should you wish to do so.

Project Contacts

If you have any queries about this study or would like to discuss any aspects in more detail, you may contact either myself, your school guidance counsellor, or one of my research supervisors. Contact details are as follows:

Researcher
Shelley James
shelleyjames@ihug.co.nz

Supervisors

Dr Richard Fletcher	Dr Heather Buttle	Dr Kerry Gibson
(09) 414 0800 Extn 41213	(09) 414 0800 Extn 41221	(09) 441 8175
R.B.Fletcher@massey.ac.nz	H.Buttle@massey.ac.nz	K.L.Gibson@massey.ac.nz

School of Psychology, Massey University, Private Bag 102 904, North Shore Mail Centre

Thank you for your assistance.

Shelley James

This project has been reviewed and approved by the Massey University Human Ethics Committee: Northern, Application 09/041. If you have any concerns about the conduct of this research, please contact Dr Denise Wilson, Chair, Massey University Human Ethics Committee: Northern, telephone 09 414 0800 x 9070, Email: humanethicsnorth@massey.ac.nz

C4. Opt-in Parent Information Sheet and Consent Form

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F 64 9 441 0831
www.massey.ac.nz

How Teenage Girls Think and Feel
About Themselves and Things in Their Lives

INFORMATION SHEET FOR PARENTS

My name is Shelley James. I am a doctoral student at Massey University currently completing my DClinPsych (Doctor of Clinical Psychology). As part of the requirements for my degree I am conducting a research study. The aim of this study is to investigate how teenage girls think and feel about themselves and things in their lives, and to ascertain the nature of personal difficulties that adolescent girls experience.

I am looking to recruit 2000 girls from secondary schools in North Auckland. Your daughter(s') school has agreed to me addressing the girls within the school (together with the school's guidance counsellor), in introducing the study and inviting students to voluntarily participate. The study is undertaken by way of the completion of a questionnaire, which takes about 40-45 minutes to complete. All information gathered is strictly anonymous and confidential, and at no time are students obliged to take part, or to complete the study. Upon completion of the questionnaire all students will receive a support resource sheet which includes my contact details.

For students aged under 16: Please complete the tear-off slip below and have your child RETURN IT TO THE SCHOOL OFFICE BEFORE 9am on ……

For students aged 16+: Students may give their own consent. However, if you **do not** want your daughter to have the opportunity to take part in the survey, please complete the tear-off slip below and have your child RETURN IT TO THE SCHOOL OFFICE BEFORE 9am on …… If no tear-off slip is received before this time, it will be gratefully assumed that you are happy for your daughter(s) to have the opportunity to take part in the survey.

Data collected from this study will be used for my doctoral thesis and for publication in a psychological journal. All data will be held in a secure environment at Massey University and disposed of by the senior supervisor after the requisite period. Only those directly involved in the administration or supervision of this study will have access to this data. Upon completion of this study, your school will receive a summary of findings. At no time will your daughter(s) or their school be identified in any research reports.

cont. overleaf

Massey University Research Study
"How Teenage Girls Think and Feel About Themselves and Things in Their Lives"

Student Name: .....

Age: .....

Year: .....

☐ I give my permission for …… to participate in the Massey University research study.

☐ I do not give my permission for …… to participate in the Massey University research study.

Signed: ....

Parent/Guardian Student

If you have any queries about this study or would like to discuss any aspects in more detail, you may contact either myself, the School's Guidance Counsellor ……, or my primary research supervisor. Contact details are as follows:

Researcher
Shelley James
shelleyjames@ihug.co.nz

Primary Research Supervisor
Dr Richard Fletcher
(09) 414 0800 Extn 41213
R.B.Fletcher@massey.ac.nz
School of Psychology
Massey University
Private Bag 102 904
North Shore Mail Centre

I would be grateful for your assistance in allowing your daughter(s) to participate in this research study.

Shelley James BA (Hons)

This project has been reviewed and approved by the Massey University Human Ethics Committee: Northern, Application 09/041. If you have any concerns about the conduct of this research, please contact Dr Denise Wilson, Chair, Massey University Human Ethics Committee: Northern, telephone 09 414 0800 x9070, email humanethicsnorth@massey.ac.nz.

C5. Opt-out Parent Information Sheet and Consent Form

Massey University
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How Teenage Girls Think and Feel
About Themselves and Things in Their Lives

INFORMATION SHEET FOR PARENTS

My name is Shelley James. I am a doctoral student at Massey University currently completing my DClinPsych (Doctor of Clinical Psychology). As part of the requirements for my degree I am conducting a research study. The aim of this study is to investigate how teenage girls think and feel about themselves and things in their lives, and to ascertain the nature of personal difficulties that adolescent girls experience.

I am looking to recruit 2000 girls from secondary schools in North Auckland. Your daughter's school has agreed to me addressing all of the Year 9 and 10 girls within the school (together with the school's guidance counsellor), in introducing the study and inviting students to voluntarily participate. The study is undertaken by way of the completion of a questionnaire, which takes about 40-45 minutes to complete. All information gathered is strictly anonymous and confidential, and at no time are students obliged to take part, or to complete the study. Upon completion of the questionnaire all students will receive a resource sheet which includes my contact details. If you **do not** want your daughter to have the opportunity to take part in the survey, please complete the tear-off slip below and have your child **return it to the school office before 9am on [insert date]**. If no tear-off slip is received before this time, it will be gratefully assumed that you are happy for your daughter to have the opportunity to take part in the survey.

Data collected from this study will be used for my doctoral thesis and for publication in a psychological journal. All data will be held in a secure environment at Massey University and disposed of by the senior supervisor after the requisite period. Only those directly involved in the administration or supervision of this study will have access to this data. Upon completion of this study, your school will receive a summary of findings. At no time will your daughter or her school be identified in any research reports.

If you have any queries about this study or would like to discuss any aspects in more detail, you may contact either myself, the School's Guidance Counsellor ***[name]***, or my primary research supervisor. Contact details are overleaf.

cont. overleaf

Massey University Research Study
"How Teenage Girls Think and Feel About Themselves and Things in Their Lives"

Student Name: .....

Age: .....

Year: 9 10 *(please circle one)*

☐ I do not give my permission for …… to participate in the Massey University research study.

Signed: .....

Parent/Guardian

Researcher
Shelley James
shelleyjames@ihug.co.nz

Primary Research Supervisor
Dr Richard Fletcher
(09) 414 0800 Extn 41213
R.B.Fletcher@massey.ac.nz
School of Psychology
Massey University
Private Bag 102 904
North Shore Mail Centre

I would be grateful for your assistance in allowing your daughter to participate in this research study.

Shelley James BA (Hons)

This project has been reviewed and approved by the Massey University Human Ethics Committee: Northern, Application 09/041. If you have any concerns about the conduct of this research, please contact Dr Denise Wilson, Chair, Massey University Human Ethics Committee: Northern, telephone 09 414 0800 x9070, email humanethicsnorth@massey.ac.nz.

Appendix D – Support/Resource Sheet for Participants

Massey University
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Support Resources

If you have any problems (mental or physical) that are really worrying you, **talk to your doctor or your school counsellor**. They are there to help you with any problems you may have. (You don't have to be physically sick to talk to your doctor – it's ok to talk to them about feelings or problems too.) You could also talk to your parents or to another adult that you trust.

Some tips for healthy coping when things are difficult
Sometimes things in your life can feel really hard. Some healthy ways that you can manage your emotions and try to feel better are:

- talk to someone about your feelings, such as a friend, a family member or an adult that you trust
- talk to someone on the phone, such as a helpline
- get out of the house and go somewhere where there are other people
- go for a walk, get some exercise or play a sport
- write in a diary
- write or draw about your feelings (sometimes it can be hard to talk about feelings)
- listen to music
- scribble on a piece of paper or rip up some paper
- watch a favourite movie
- have a bubble bath or use some relaxing oils in a bath
- hit a pillow
- talk to someone online using an internet support group
- write a letter to someone who has upset you or made you angry, explaining how you feel. You don't have to send it – you can rip it up if you want. Sometimes just writing it makes you feel better

Helplines
If you don't want to talk to your doctor, friends, family or school counsellor, you might want to phone a helpline and talk to someone. Helplines are there for you and can offer advice, information, or just someone friendly to talk to. Below are some useful phone numbers for helplines in NZ.

General Help & Advice		
Youthline	0800 376 633	Counselling service for young people
Lifeline	0800 111 777	24-hour free, confidential telephone counselling service
Samaritans	0800 726 666	24-hour service for confidential listening and support
What's Up	0800 942 8787	Free telephone counselling service for 5-18-year-olds
Depression		
The Lowdown	text 5626	Helping young Kiwis understand and deal with depression
National Depression Helpline	0800 111 757	Support and information about depression
Eating Disorders		
EDEN	09 378 9039	Information about eating issues
Alcohol & Drugs		
Alcohol Drugs Helpline	0800 787 797	Confidential information, insight and support on your own or someone else's drinking or drug taking
Al-anon/Alateen	0508 425 266	Help for young people who have relatives/friends with alcohol problems
Gay & Lesbian		
Rainbow Youth	09 376 4155	Safe, supportive environment for queer and questioning youth, their friends, and whanau.

If there is anything about the study that has concerned you or that you would like to talk to me about, you may email me at shelleyjames@ihug.co.nz

Sexual Abuse & Family Planning		
Family Planning	0800 4636 5463	Family planning and pregnancy
Auckland Sexual Abuse HELP Foundation	09 623 1700	24 hour crisis support, information and counselling to women and children survivors of sexual assault
Gambling		
Gambling Problem Helpline Service	0800 654 655	24 hour service to receive immediate support, as well as referral and information services for gambling problems
Domestic Violence		
Shine	0508 384 357	Information and support about domestic violence

Internet Information and Support

The internet also has a lot of information and support groups which you may find useful. Below are some websites that you might find helpful.

General Help & Advice
www.youthline.co.nz
www.myd.govt.nz
www.whatsup.co.nz

General Emotional Health
www.mentalhealth.org.nz
auckland.webhealth.co.nz/provider
www.mentalhealth.org.nz
www.itsallright.org
www.healthyplace.com/support/home
www.revolutionhealth.com/community

Depression
www.thelowdown.co.nz

Eating Disorders
www.eden.org.nz

Gay & Lesbian
www.rainbowyouth.org.nz

Drugs & Alcohol
www.al-anon.org.nz
www.talktofrank.com

Self-Harm
www.recoveryourlife.com
www.nshn.co.uk/forum/index.php
www.healthyplace.com/support/home
www.revolutionhealth.com/community

Sexual Abuse & Family Planning
www.asah.org.nz

Domestic Violence
www.2shine.org.nz

Law
www.youthlaw.co.nz

Disabilities
www.starjam.org

If there is anything about the study that has concerned you or that you would like to talk to me about, you may email me at shelleyjames@ihug.co.nz

Appendix E –Statistical Tables

Table E1
Standardised Factor Loadings and Domain Correlations from the Confirmatory Factor Analysis of the Second Order Model of the YSQ

Domains/Subscales	**Items**	**Standardised Loadings**	
		Items to Subscales	**Subscales to Domains**
Disconnection/Rejection (DR)			
Abandonment/Instability	YSQ2	.732	.886
	YSQ20	.792	
	YSQ38	.793	
	YSQ56	.712	
	YSQ74	.790	
Mistrust/Abuse	YSQ3	.683	.972
	YSQ21	.717	
	YSQ39	.808	
	YSQ57	.760	
	YSQ75	.762	
Emotional Deprivation	YSQ1	.551	.816
	YSQ19	.728	
	YSQ37	.661	
	YSQ55	.712	
	YSQ73	.680	
Defectiveness/Shame	YSQ5	.687	.873
	YSQ23	.737	
	YSQ41	.735	
	YSQ59	.749	
	YSQ77	.638	
Social Isolation/Alienation	YSQ4	.771	.880
	YSQ22	.623	
	YSQ40	.829	
	YSQ58	.778	
	YSQ76	.739	
Impaired Autonomy (IA)			
Dependence/Incompetence	YSQ7	.559	.871
	YSQ25	.129	
	YSQ43	.495	
	YSQ61	.794	
	YSQ79	.703	
Vulnerability to Harm	YSQ8	.792	.975
	YSQ26	.637	
	YSQ44	.489	
	YSQ62	.581	
	YSQ80	.518	
Enmeshment/Undeveloped Self	YSQ9	.467	.835
	YSQ27	.548	
	YSQ45	.734	
	YSQ63	.524	
	YSQ81	.648	
Failure	YSQ6	.776	.741
	YSQ24	.663	
	YSQ42	.827	
	YSQ60	.850	
	YSQ78	.783	

cont.

Table E1 *(cont.)*

Impaired Limits (IL)			
Entitlement/Grandiosity	YSQ14	.620	.888
	YSQ32	.338	
	YSQ50	.643	
	YSQ68	.488	
	YSQ86	.474	
Insufficient Self-Control	YSQ15	.619	.967
	YSQ33	.656	
	YSQ51	.643	
	YSQ69	.515	
	YSQ87	.540	
Other Directedness (OD)			
Subjugation	YSQ10	.525	.877
	YSQ28	.849	
	YSQ46	.604	
	YSQ64	.573	
	YSQ82	.560	
Self-Sacrifice	YSQ11	.609	.976
	YSQ29	.457	
	YSQ47	.731	
	YSQ65	.557	
	YSQ83	.670	
Approval-Seeking	YSQ16	.451	.545
	YSQ34	.673	
	YSQ52	.629	
	YSQ70	.621	
	YSQ88	.601	
Overvigilance/Inhibition (OI)			
Negativity/Pessimism	YSQ17	.827	.972
	YSQ35	.844	
	YSQ53	.826	
	YSQ71	.678	
	YSQ89	.764	
Emotional Inhibition	YSQ12	.677	.869
	YSQ30	.686	
	YSQ48	.702	
	YSQ66	.626	
	YSQ84	.704	
Unrelenting Standards	YSQ13	.640	.577
	YSQ31	.704	
	YSQ49	.536	
	YSQ67	.672	
	YSQ85	.490	
Punitiveness	YSQ18	.833	.830
	YSQ36	.586	
	YSQ54	.766	
	YSQ72	.743	
	YSQ90	.642	
Domain Correlations	DR/IA	.923	
	DR/IL	.753	
	DR/OD	.784	
	DR/OI	.906	
	IA/IL	.834	
	IA/OD	.834	
	IA/OI	.955	
	IL/OD	.658	
	IL/OI	.809	
	OD/OI	.787	

Table E2
Pearson Correlation Coefficients For SDQ Problem Scales and YSQ Schemas for DSH Participants

	EP	CP	H	PP	ProB	Total	Impact
Disconnection/Rejection	**.385****	.129	.087	**.439****	.026	**.430****	**.455****
Abandonment/Instability	**.468****	.110	**.272***	.194	.077	**.464****	**.467****
Mistrust/Abuse	**.406****	.083	.003	**.316****	.091	**.345****	**.432****
Emotional Deprivation	**.255***	–.008	.000	**.308****	.081	**.230***	**.265***
Defectiveness/Shame	.174	.174	–.021	**.408****	–.122	**.287****	**.308****
Social Isolation/Alienation	**.258***	.130	.005	**.539****	–.021	**.365****	**.353****
Impaired Autonomy	**.258***	.176	**.398****	.048	.127	**.382****	**.357****
Dependence/Incompetence	.162	**.231***	**.443****	.041	.127	**.372****	.206
Vulnerability to Harm	**.453****	.077	.163	.035	.093	**.339****	**.479****
Enmeshment/Undeveloped Self	–.156	.009	**.246***	–.060	.001	.007	.135
Failure	.207	.171	**.288****	.093	.122	**.324****	.174
Impaired Limits	.087	**.337****	**.532****	–.011	–.065	**.398****	.108
Entitlement/Grandiosity	.050	**.241***	**.440****	–.075	–.132	**.280***	.041
Insufficient Self-Control	.099	**.342****	**.489****	.048	.008	**.408****	.141
Otherdirectedness	.181	–.132	.210	.102	.131	.159	.197
Subjugation	.180	–.020	**.232***	.165	–.042	**.234***	**.255***
Self-Sacrifice	.044	**–.262***	.065	.034	**.338****	–.045	.079
Approval-Seeking	.164	.009	.157	.027	–.031	.160	.096
Overvigilance/Inhibition	**.425****	.096	.016	**.256***	.040	**.346****	**.536****
Negativity/Pessimism	**.457****	.192	.173	.185	.065	**.442****	**.538****
Emotional Inhibition	.173	.191	.016	**.307****	–.145	**.275***	**.406****
Unrelenting Standards	**.289****	–.095	–.170	.160	.078	.090	**.259***
Punitiveness	**.435****	.020	.018	.183	.120	**.295****	**.512****
YSQ Total	**.402****	.146	**.244***	**.289****	.070	**.460****	**.496****

EP = Emotional Problems; C = Conduct Problems; H = Hyperactivity; PP = Peer Problems; ProB = Prosocial Behaviours; Total = Total Problems; Impact = Impact of Problems.
* $p < .05$; ** $p < .01$

Table E3

Pearson Correlation Coefficients For Normalising, Social Influence, Secrecy and Severity Scales with SDQ Problem Scales and YSQ Schemas for DSH Participants

	Normalising	Overall Social Influence	Parent Influence	Peer Influence	Peer Pressure	Secrecy	Severity
SDQ							
Emotional Problems	–.118	.051	.020	.132	.038	.116	**.222***
Conduct Problems	**.267***	**.316****	**–.278***	.118	.188	–.052	.032
Hyperactivity	.182	**.248***	–.196	.109	.171	–.124	–.162
Peer Problems	–.052	–.058	–.024	–.181	–.037	.068	**.252***
Prosocial Behaviours	–.090	**–.247***	**.227***	–.206	–.082	–.053	.059
Total Problems	.107	**.245***	–.197	.104	.157	.008	.142
Impact of Problems	.016	.123	–.112	.017	.078	.166	**.284***
YSQ Domains/Schemas							
Disconnection/Rejection	**.311****	**.239***	–.209	.044	.173	.218	**.340****
Abandonment/Instability	.087	**.231***	–.196	.116	.126	.068	.178
Mistrust/Abuse	**.258***	.193	–.163	–.074	.209	.167	**.411****
Emotional Deprivation	.167	.100	–.026	.104	.103	**.323****	.072
Defectiveness/Shame	**.342****	.216	**–.278***	–.050	.091	**.244***	**.393****
Social Isolation/Alienation	**.315****	.155	–.123	.053	.119	.143	**.351****
Impaired Autonomy	**.273***	**.225***	–.178	.061	.160	.201	.117
Dependence/Incompetence	.181	**.306****	**–.224***	.196	.173	.024	.105
Vulnerability to Harm	.206	.117	–.052	–.003	.157	**.286***	.175
Enmeshment/Undeveloped Self	.174	–.039	.045	–.083	.029	.099	–.141
Failure	.194	**.227***	**–.235***	.067	.093	.129	.149
Impaired Limits	**.266***	.120	–.047	.083	.120	.017	–.041
Entitlement/Grandiosity	.198	.093	–.035	.117	.070	.003	–.127
Insufficient Self–Control	**.263***	.116	–.047	.035	.135	.025	.046
Other Directedness	.117	.066	.021	.005	.151	.090	.015
Subjugation	.129	.147	–.093	.049	.136	.171	.147
Self–Sacrifice	.004	–.047	.005	–.125	–.012	.066	.080
Approval–Seeking	.117	.049	.124	.094	.199	–.034	–.182
Overvigilance/Inhibition	.124	.085	–.073	–.018	.077	**.317****	**.264***
Negativity/Pessimism	.196	.145	–.117	.031	.099	.192	**.229***
Emotional Inhibition	.156	.161	–.137	–.010	.146	.212	**.312****
Unrelenting Standards	–.032	–.131	.120	–.101	–.042	**.326****	.099
Punitiveness	.076	.096	–.096	.019	.046	**.303****	**.222***
YSQ Total	**.284***	.207	–.155	.038	.176	**.259***	**.250***

* $p < .05$; ** $p < .01$

Table E4

Pearson Correlation Coefficients for Reasons for DSH with SDQ Problem Scales and YSQ Schemas and Domains, Normalising, Social Influence and DSH-Specific Measures

	Reasons for DSH			
	Emotional	**Avoidant**	**Attention/ Communication**	**Social**
SDQ				
Emotional Problems	.152	–.001	.016	–.066
Conduct Problems	–.058	–.005	–.026	.069
Hyperactivity	–.043	.012	–.095	.023
Peer Problems	.144	.144	.086	–.021
Prosocial Behaviours	.211	–.061	–.015	–.109
Total Problems	.084	.051	–.014	–.003
Impact of Problems	**.444****	.041	.016	–.169
YSQ Domains/Schemas				
Disconnection/Rejection	**.433****	–.033	.071	–.008
Abandonment/Instability	**.344****	–.095	.012	.037
Mistrust/Abuse	**.472****	.040	.006	–.060
Emotional Deprivation	**.221***	–.043	.095	.021
Defectiveness/Shame	**.361****	–.050	.068	–.041
Social Isolation/Alienation	**.345****	.033	.110	.013
Impaired Autonomy	**.367****	–.021	–.003	–.002
Dependence/Incompetence	**.237***	.063	–.051	–.042
Vulnerability to Harm	**.374****	–.093	–.005	.025
Enmeshment/Undeveloped Self	.200	–.021	.095	.020
Failure	.214	.003	–.037	–.012
Impaired Limits	.124	–.016	.079	.063
Entitlement/Grandiosity	.054	.024	.112	.143
Insufficient Self–Control	.156	–.046	.032	–.021
Other Directedness	**.346****	.018	.153	.055
Subjugation	**.423****	.148	.072	–.029
Self–Sacrifice	**.336****	–.044	.011	–.043
Approval–Seeking	–.007	–.053	**.238***	.182
Overvigilance/Inhibition	**.392****	–.144	–.044	–.168
Negativity/Pessimism	**.408****	–.137	–.042	–.121
Emotional Inhibition	**.264***	–.095	–.051	–.121
Unrelenting Standards	.156	–.150	–.029	–.080
Punitiveness	**.423****	–.081	–.020	–.217
YSQ Total	**.471****	–.065	.051	–.042
Normalising	**.259***	.043	-.036	**.399****
Social Influence				
Overall Influence	**.292****	.064	.014	.138
Parent Influence	**–.356****	–.063	.036	–.011
Peer Influence	–.010	.063	.018	.169
Peer Pressure	.103	.043	.074	.170
DSH-Specific Measures				
No. Times DSH	**.421****	–.117	.062	–.083
Age First DSH	**–.318****	–.193	.079	–.026
No. Other DSHers Known	.013	–.096	.052	.050
Secrecy	.082	–.034	–.103	.070
Severity	**.544****	–.051	.003	–.025

* $p < .05$; ** $p < .01$