School of Population Health
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Why am I doing this? Ambivalence in the context of Non-Suicidal Self-Injury

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Declaration

Originality

To the best of my knowledge and belief, this thesis contains no material previously published by any other person except where due acknowledgment is made. This thesis contains no material that has been submitted or accepted for the award of any other degree or diploma at any university.

Human Ethics

The research presented and reported in this thesis was conducted in accordance with the National Health and Medical Research Council National Statement on Ethical Conduct in Human Research (2014). Human research ethics approval from the Curtin University Human Research Ethics Committee (HREC) was obtained for the studies presented in Chapter 2 (HRE 2018-0536; RDHS-236-15; HRE 2017-0156), and Chapter 3 and 4 (HRE2020-0237).

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2. Hasking, P., Lewis, S.P., Staniland, L., Mirichlis, S., Hird, K., **Gray, N.,** Arai, M., Pemberton, E., Preece, D., & Boyes, M. (2023). Further silencing the voiceless: The role of gatekeepers in accessing information about self-injury. *Journal of Nervous and Mental Disease. 221,* 5-10. https://doi.org/10.1097/NMD.0000000000001575
3. Hasking, P., Chen, N., **Gray, N.,** Chui, V., Gross, J., & Boyes, M. (2022). 'Managing Emotion': Open label and waitlist controlled trial of an emotion regulation program for university students. *Journal of American College Health.* https://doi.org/10.1080/07448481.2022.2155468
4. Claréus, B., Hasking, P**., Gray, N.,** & Boyes. M. (2022). Is ceasing self-injury enough? Differences in psychological health between people reporting behavioural cessation of non-suicidal self-injury and those who consider themselves to have stopped self-injuring. *Journal of Clinical Psychology*, *79*(1), 255-269. https://doi.org/10.1002/jclp.23409
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6. **Gray, N.,** Hasking, P., & Boyes, M. E. (2021). The impact of ambivalence on recovery from non-suicidal self-injury: Considerations for health professionals. *Journal of Public Mental Health, 20*(4), 251-258. https://doi.org/10.1108/JPMH-07-2020-0093
7. Hasking, P., Dawkins, J., **Gray, N.,** Wijeratne, P., & Boyes, M. (2020). Indirect effects of family functioning on non-Suicidal self-injury and risky drinking: The roles of emotion reactivity and emotion regulation. *Journal of Child and Family Studies*, *29*(7), 2070-2079. https://doi.org/10.1007/s10826-020-01722-4

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Conference Presentations

1. **Gray, N.** (2022, October) *Profiling ambivalence in the context of self-injury.* Rapid poster presentation at the Australian Association for Cognitive and Behaviour Therapy Conference, Melbourne
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5. **Gray, N.** (2021, August). *Cognitive and emotional factors associated with the desire to cease non-suicidal self-injury*. Mark Liveris Seminar, Curtin University Faculty of Health Sciences Research Day, Perth

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Thesis Abstract

Non-suicidal self-injury (NSSI) is a complex behaviour involving the intentional damage to one's own body. NSSI is associated with a range of adverse outcomes including mental health disorders, shame, unwanted scarring, and stigma. While not suicidal in nature, the behaviour is linked to future suicidal thoughts and behaviours. Seemingly opposed to our innate drive for self-protection, individuals who engage in NSSI often report confusion over why they engage in the behaviour. Self-injury has a variety of functions including self-punishment, anti-dissociation, communication, and most commonly, to regulate unwanted affect. However, negative outcomes of NSSI may compete with the benefits of these functions, leaving individuals confused and ambivalent about whether they want to engage in or cease the behaviour. The presence of competing desires is often overlooked by individuals, health professionals, and family or other loved ones. The aim of this thesis is to explore and understand experiences of ambivalence related to self-injury.

In **Study 1** (n = 374), I explored incongruence between action and desire in the context of self-injury. Given many individuals continue to self-injure when they desire to stop, I assessed whether stopping (12-month cessation) was associated with the same factors as desire to stop the behaviour. Specifically, I assessed whether psychological distress, difficulties with emotion regulation, NSSI-related outcome expectancies, self-efficacy to resist NSSI, and a range of NSSI-related characteristics (e.g., functions, recency) were associated with *i)* stopping self-injury, and *ii)* desire to stop self-injury. Psychological distress, difficulties with emotion regulation, outcome expectancies, self-efficacy to resist NSSI, and intrapersonal functions all differentiated individuals who had stopped self-injuring from those who had not. However, these factors did not differentiate individuals who did and did not want to stop the behaviour. Additionally, of participants wanting to stop self-injuring, approximately half had self-injured in the 12 months prior. Of the participants who did not want to stop self-injuring, approximately 40% had not self-injured in the 12 months prior. This suggests that actioned behaviour does not necessarily reflect the individual's desire toward the behaviour; cessation and desire to stop should be assessed as separate constructs. Additionally, these findings suggest the factors associated with behavioural cessation are not the same factors associated with the desire to cease self-injuring. However, in this study, desire to cease self-injury was assessed as a binary no/yes response, which likely does not capture potential ambivalence in the desire stop (or not) self-injuring. Study 2 addressed this limitation using a multidimensional assessment of desire to cease self-injuring.

In **Study 2** (*n* = 224) I examined the desire to both stop and not stop self-injuring, and associations with a range of constructs. These constructs were informed by the Ambivalence Model and theoretical models of self-injury. Specifically, I aimed to test whether individuals with a history of NSSI could be categorised according to the profiles predicted by the Ambivalence Model (i.e., avoid, approach, indifferent, and ambivalent), and if so, whether these profiles differed across a range of theoretically-informed constructs. I measured ambivalence by assessing the extent to which participants wanted to engage in NSSI and the extent they did not want to engage in NSSI. A latent profile analysis extracted four profiles (avoid, moderately ambivalent, highly ambivalent, approach). These profiles differed in the tendency to approach/avoid NSSI in the last year, as well as both engagement in, and desire to engage in, NSSI over the last year and month. Additionally, profile-related differences in personality, intrapersonal functions, reasons to stop NSSI, difficulties with emotion regulation, psychological distress, outcome expectancies, and self-efficacy to resist NSSI were evident. This study demonstrated that accounting for ambivalence in the desire to self-injure (or not) provided a more nuanced reflection of what differentiates those who want to, and those who do not want to, engage in the behaviour. While Studies 1 and 2 highlighted the importance of considering ambivalence in the context of self-injury, they did not the capture the potential impact that ambivalence may have on an individual's own unique lived experience. This was addressed in Study 3.

In **Study 3** (*n* = 31), I explored the lived experience of ambivalence in the context of self-injury. I conducted 31 interviews and analysed the data using reflexive thematic analysis. Five themes were developed through this process; *'Push and pull'* reflects the experience of ambivalence from the initial urge to self-injure through to proceeding the action of the behaviour; *'Internalising the perspectives of others'* reflects the internalised opinions of others, and how that impacts levels of ambivalence toward engaging in self-injury; *'Confusing feelings'* reflects the complexities of emotion felt while the individual either resists or acts on an urge to self-injure; *'Catalyst for recovery*' reflects how the participants recognised their ambivalence toward self-injury in aiding recovery from the behaviour; and *'Lingering ambivalence'* reflects remaining ambivalence and urges once the individual has stopped engaging in self-injury.

Together, my three studies indicate that ambivalence is a common and confusing experience for many who self-injure and is also an integral component of the recovery process. Levels of ambivalence may be different for individuals who have a history of self-injury, and this may be due to the time since last engaging in the behaviour, perceived level

of recovery, a range of cognitive and emotional factors, interpersonal experiences, and recognition of ambivalence itself. My findings suggest that individual differences in emotion, cognition, motivation, level of risk, and desire to change may not be associated with unidimensional assessments of desire to cease self-injuring; however, these theoretically-informed constructs do appear salient if we consider ambivalence in the desire to self-injure. Importantly, the recognition of competing desires may reduce the confusion that comes with engaging in a seemingly counterintuitive behaviour, often incongruent to one's own perceived desires. Practically, recognising ambivalence may provide more accurate treatment targets for the individual, and health professionals may benefit from using a person-centred approach to recovery from self-injury, which considers desire to stop as well as behaviour. I hope my research will educate researchers, health professionals, families, and individuals with lived experience, on the important role ambivalence plays before, during, and after the decision to engage in NSSI, and during the recovery process.

Author's Note

This thesis is presented as a hybrid thesis, comprising both published and unpublished research. As such, there will be some unavoidable repetition across chapters, as the background and methodology are similar across papers. I have minimised repetition wherever possible. Of note, I have combined the references for all chapters, placing them after the final publication. Chapter 2 and Chapter 3 have been published in the *Journal of Clinical Psychology*. Chapter 4 is currently being revised for resubmission to an international journal. All figures and tables are labelled in the list of figures and tables by their chapter number, followed by the order number of the figure or table (e.g., for Chapter 2, tables and figures would be numbered 2.1, 2.2 etc). I use the pronoun "we", in these papers, as authorship belongs to others in addition to myself.

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Chapter 1

Introduction to Thesis

In this chapter, I will provide a brief overview of the topics central to my thesis and a summary of my PhD research. First, I will provide a definition of non-suicidal self-injury (NSSI) and explain the nature and extent of the behaviour. Second, I will briefly outline the concept of ambivalence and consider how ambivalence may manifest in the context of NSSI. Building from this foundation, I will present the overarching research aims and objectives of my doctoral research and provide a brief outline of each chapter, describing how it is aligned with my research aim.

Thesis Overview

Non-Suicidal Self-Injury

Non-suicidal self-injury is the intended damage to one's own body in the absence of suicidal intent (International Society for the Study of Self-Injury, 2022). Methods of NSSI include, but are not limited to, cutting, burning, and self-battery (Taylor et al., 2018). Behaviours such as tattooing, or body modification are not considered NSSI, as these behaviours are socially sanctioned (Nock & Favazza, 2009). NSSI is a growing public health concern and pooled international studies suggesting that, in community populations, approximately 17.2% of adolescents, 13.4% of young adults and 5.5% of adults report a lifetime history of NSSI (Swannell et al., 2014). Rates of NSSI are higher in clinical samples, with approximately 63% of adolescents (Glenn & Klonsky, 2013) and 18-20% of adults (Klonsky & Muehlenkamp, 2007; Polanco-Roman et al., 2014) reporting a lifetime history of NSSI.

Recent studies regarding gender differences in self-injurious behaviours suggest that rates are similar between males and females (Victor et al., 2018). Other findings suggest that higher rates of NSSI are prevalent in women, though this may be due to gender biases in adolescent samples (Bresin & Schoenleber, 2015; Yang & Feldman, 2018). Some studies have found gender differences between specific types of self-injurious behaviours; while cutting is reported as the most common method for self-injury in both males and females, scratching and hair pulling is more common in females compared to males, while burning and self-battery is more common in males compared to females (Bresin & Schoenleber, 2015). In a recent study examining where on the body individuals are most likely to self-injure, the most common areas were the arms (88.21%), legs (59.74%), and abdomen/stomach (30.98%). The same study indicated that females are more likely than

males to self-injure on their stomach and legs, while males are more likely than females to self-injure on their torso (Victor et al., 2018).

Engagement in NSSI can begin at any age, however onset appears to peak at approximately 14 years of age, with a second peak at approximately 20 years of age (Gandhi et al., 2018), which for many coincides with the years of university study. Indeed, rates of self-injury among university students (17%–20%, Kelada et al., 2016a; Swannell et al., 2014) are substantially higher than rates in the general young adult population (13.4%; Swannell et al., 2014), with 8%–12% reporting NSSI in the past 12 months (Ammerman et al., 2017; Kiekens et al., 2018). Additionally, approximately 16% of students begin to self-injure during the first two years of university (Kiekens et al., 2019). Taken together, these estimates indicate that individuals attending university are more likely to engage in self-injury than wider community populations. A variety of factors including financial instability, transition from school to university environments, relationship/friendship changes, identity challenges, test anxiety, and uncertainty about the future may increase the likelihood of both psychological disorders, and NSSI in university students (Bruffaerts et al., 2018; Kiekens et al., 2016; 2018). Given this, my research focuses on understanding self-injury among university students, with the goal of supporting individuals through what may be a potentially difficult transition. Through my research I hope to identify areas where stress and adverse mental health may be reduced, and in turn promote self-awareness and self-compassion within this population.

Non-suicidal self-injury is associated with a range of negative outcomes including psychological disorders and future suicidal thoughts and behaviours (Kiekens et al., 2018; Whitlock et al., 2013). The association between psychological disorders and NSSI has influenced its inclusion in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5), as an independent diagnosis requiring further study (American Psychiatric Association, 2013). In addition to possible future psychological disorders and suicidal thoughts and behaviours, other negative outcomes of NSSI include potential increases in frequency and severity over time (Andrews et al., 2013), scarring, stigma (Lewis, 2017; Staniland et al., 2020), poor academic performance (Kiekens et al., 2016), shame (Schoenleber et al., 2014), and hospitalisation (Owens et al., 2016). While such negative outcomes are common, they are not experienced by all individuals who self-injure.

Given the negative outcomes associated with NSSI, it is perhaps unsurprising that researchers have sought to understand factors associated with ceasing the behaviour (Andrews et al., 2013; Horgan & Martin, 2016; Kiekens et al., 2018; McEvoy et al., 2017;

Mumme et al., 2017; Whitlock et al., 2015; Young et al., 2007). Andrews and colleagues (2013) found that relative to individuals who had ceased NSSI, those who continued reported more frequent NSSI, more methods of NSSI, lower cognitive reappraisal, and higher levels of emotional suppression. Results were similar in research by Kiekens and colleagues (2017), also finding that compared to individuals who had stopped self-injuring, those who were continuing to self-injure had lower perceived ability to regulate their emotions, and higher levels of emotional and academic distress. In a review of quantitative and qualitative literature (Mumme et al., 2017), individuals who had stopped self-injuring reported stronger family support, higher self-esteem, greater ability to regulate emotions, and more strategies to regulate emotions compared to individuals who continued to self-injure. Additionally, individuals who had stopped had received professional help, and gained alternative coping strategies (Mumme et al., 2017).

While important to our understanding of NSSI cessation, this work has neglected well-established findings from the broader health psychology (and recovery) literature demonstrating desire for behaviour change is an important first step underpinning behaviour change (Norcross et al., 2011). Some research has identified that goal desire, and ambivalence, moderates the intention and behaviour relationship (Conner & Sparks 2002; Prestwich et al., 2008; Sparks et al., 2004), suggesting desire may be an important step between the recognition of reasons to stop self-injury, and behavioural cessation. Some research has investigated correlates and reasons for individuals' desire for cessation or continuation of NSSI (Deliberto & Nock, 2008; Gelinas & Wright, 2013; Grunberg & Lewis, 2015). These studies explored participant responses to why they wished to cease self-injury. Reasons included to prevent unwanted scarring, to prevent hurting loved ones, and viewing NSSI as futile, "stupid", or unhealthy (Deliberto & Nock, 2008; Gelinas & Wright, 2013; Grunberg & Lewis, 2015). However, specific factors that may differentiate those who want to stop and those who do not want do stop have not been explored. Chapter 2 (Study 1) explicitly addressed this limitation and sought to identify factors associated with desire to cease self-injuring.

Despite potential negative outcomes, individuals report a range of reasons for engaging in NSSI. A pathway to understand the fundamental motivations behind self-injurious behaviour is the four-function model proposed by Nock and Prinstein (2004). The model suggests that there are four primary functions for NSSI; to reduce a stimulus (negative re-enforcement), to increase a stimulus (positive re-enforcement), to alter an internal state (intrapersonal function), or to alter an external state (interpersonal function). For example, an

individual may engage in NSSI for intrapersonal reasons, such as to remove a negative emotional experience (negative re-enforcement) or to add a sensation during a dissociative state (positive re-enforcement). Conversely, an individual who engages in NSSI for interpersonal reasons may wish to isolate from others (negative reinforcement), or to communicate their pain to others in the hopes of receiving help (positive re-enforcement; Nock & Prinstein, 2004). Both the interpersonal and intrapersonal aspects of this model have been validated in other studies. Over time, several functions of NSSI have been identified in the literature, including the expression of anger at self or others, a form of self-punishment, to communicate when language feels insufficient, to avoid suicidal impulses, to remove unwanted dissociation, to influence others, or to feel in control over a situation (Briere & Gil, 1998; Klonsky, 2007; Klonsky & Glenn, 2009; Lloyd-Richardson et al., 2007). In a recent meta-analysis by Taylor and colleagues (2018), the majority of individuals engaged in NSSI for intrapersonal reasons (66-81%). The most common function of NSSI was to reduce or avoid negative emotional states. Inducing positive sensations such as excitement or relaxation, and self-punishment were the second most common function of NSSI (Taylor et al., 2018). Individuals are more likely to engage in NSSI when the emotional reaction is perceived as too intense to cope with, and/or when the individual has no developed effective emotion regulatory strategies to be able to cope with such intense emotion (Chapman et al., 2007; Dawkins et al., 2019; Nock et al., 2010; Nock & Mendes 2008). Multiple studies have demonstrated that increases in negative affect are associated with increased likelihood of self-injurious thoughts or behaviours (Bentley et al., 2015; Boyes et al., 2020; Bresin, 2014; Brown et al., 2007; Horgan & Martin, 2016; Klonsky et al., 2014; Najmi et al., 2007). Compared to individuals who do not self-injure, individuals who do self-injure report greater levels of negative affect in general (Horgan & Martin, 2016; Najmi et al., 2007).

In other studies, trait negative affect was found to be higher in individuals which a recent (past month) history of NSSI compared to those with a lifetime history (Taylor et al., 2012). In an experimental study by Boyes and colleagues (2020), participants were exposed to a negative mood induction by viewing a negatively valanced film clip. Results showed that those with a history of NSSI did not report any greater negative affect than those without a history of NSSI, however, there was greater perseveration of negative affect in those with a history of NSSI. It is possible that ongoing perseveration may lead to a cumulative effect of negative emotion, increasing in intensity. Conversely, those without a history of NSSI have greater ability to regulate negative affect, preventing a build-up of negative emotion over time (Boyes et al., 2020). A meta-analysis by Bentley and colleagues (2015) indicated that

individuals who have emotional disorders characterised by frequent and intense negative emotions are more likely to engage in NSSI than those without emotional disorders (Bentley et al., 2015). Lastly, in comparison to individuals who report low levels of emotional reactivity, individuals reporting high levels of emotional reactivity also report a greater reduction in negative affect when subjected to pain, perhaps providing an indication of why an individual may choose NSSI over other emotion regulation strategies (Bresin et al., 2010).

High levels of negative affect prior to NSSI are relatively consistent throughout NSSI studies. Moreover, reductions in negative affect following NSSI are often reported in the literature. Klonsky (2009) explored the impact of NSSI on negative affect through structured interviews with individuals with a lifetime history of NSSI. Findings indicated that prior to self-injury, participants reported feelings of overwhelm, sadness, and frustration, then experienced relief and calmness after self-injury. Similar findings were reflected in laboratory studies. For example, in a study by Fox and colleagues (2017), participants subject to a negative mood induction were placed into three groups; a control group where they had no distraction from the negative mood, a pain-free mild distraction group, and a pain condition. Participants who self-administered pain did not report any subsequent changes in negative affect, unless they reported high levels of self-criticism. Individuals who reported lower levels of self-criticism had worse negative affect after pain administration. This suggests that perhaps negative affect is altered by a combination of factors in those who self-injure. Lastly, in a review of 18 studies, comprising both self-report and laboratory studies, Klonsky (2007) identified that negative affect does precede NSSI, and that following NSSI participants felt a decrease in negative affect, and an increase in relief. Given that NSSI is effective in regulating unwanted emotion, yet is also associated with negative outcomes, including stigma and shame, individuals may experience ambivalence regarding their self-injury.

Ambivalence

Ambivalence is a cognitive process of competing thoughts, feelings, or desires, and is often difficult to recognise (Conner & Sparks, 2002). It is normal for people to experience ambivalence in decision making, or when contemplating change in behaviour (Miller & Rose, 2015). An individual may have a strong desire to engage in a behaviour, yet simultaneously have little desire to engage in the same behaviour. As such, ambivalence occurs when the individual is motivated by both the advantages and disadvantages of the behaviour (Conner & Sparks, 2002). This may manifest in seemingly contradictory desires and behaviours, confusing both the individual and onlookers. When applied to health-related behaviours, heath professionals, loved ones, and the individual themselves may mistakenly believe that

they are not serious in their intentions. Such misinterpretations may lead to feelings of inadequacy, shame, and confusion for those attempting to change (Miller & Rose, 2015). In behavioural research, the incongruence between desire and actioned behaviour is common concept (Armatige & Conner, 2001; McWilliams et al., 2019; Rhodes & de Brujin, 2013; Sheeran & Webb, 2016). Ambivalence is a well-recognised component of in the alcohol use (Breiner et al., 1999; Schlauch et al., 2015), drug use (Schlauch, Breiner, Stasiewicz, Christensen, & Lang, 2012), and disordered eating literature (Rancourt, Ahlich, Levine, Lee, & Schlauch., 2019). The Ambivalence Model (Breiner et al., 1999) has contributed to the understanding of these behaviours, by illustrating how one's history, beliefs, and expectations of engaging in a behaviour may lead them to a desire to engage *and* not engage in the behaviour, simultaneously (Cartwright & Stritzke, 2008; McEvoy et al., 2004; Rancourt et al., 2019).

However, while ambivalence is well-researched in other behaviours, to date there is limited research on ambivalence in the context of NSSI. The Ambivalence Model, originally used to conceptualise craving for alcohol, proposes that wanting to drink (approach), *and* not wanting to drink (avoid) exist on an independent spectrum of intensity. A range of preceding factors are thought to determine the intensity of desire to approach or avoid drinking behaviours, resulting in an indication of the level of ambivalence an individual has toward engaging in alcohol consumption. These factors include historical factors (personality, past-reinforcement), and immediate factors (context of the environment; i.e., immediate incentives, outcome expectancies). More information on the model is provided in Chapter 3 (Study 2), which uses the model as a theoretical framework to profile ambivalence in the context of NSSI. Given identified consequences (e.g., scarring, stigma) and benefits (emotion regulation) of NSSI, understanding ambivalence in the context of NSSI may facilitate an understanding of the reasons individuals desire to cease and/or continue self-injury, and help explain the experience and impact of competing desires.

The conceptualisation of ambivalence is complex. Conner and Sparks (2002) note that in the wider psychology literature, the common definition of ambivalence is the simultaneous existence of positive and negative evaluations of an attitudinal object (p.39). An important feature within the concept of ambivalence is the attitudinal object unique to the situation or question at hand. For example, an individual may feel ambivalent toward a behaviour (reducing or increasing), a longer-term goal, opinions or actions of others, or a state of affairs (Conner & Sparks, 2002). The object of one's ambivalence may alter the approach to resolve their ambivalence in one direction or another. For example, motivational interviewing is one

psychotherapeutic tool where the advantages and disadvantages of a given behaviour are explored, with an aim to reduce ambivalence toward behaviours with positive outcomes for the client. This approach may be useful in resolving ambivalence toward a change in certain behaviours (Diclemente et al., 2017; Miller & Rose, 2015), but may not be as useful in, for example, resolving ambivalence toward a political situation, or competing emotions during an interpersonal conflict. In research and practice, being aware of the different elements embedded in the term "ambivalence" is important in framing the research question, and applying treatment targets to individuals experiencing ambivalence. The research in this thesis focuses primarily on ambivalence toward a behaviour (NSSI). This expands in Chapter 4 (Study 3) to the experience of ambivalence toward multiple other attitudinal objects. Additionally, I remain aware of the temporal fluctuations of ambivalence, and address this concept in each of the chapters presented.

Ambivalence in NSSI

While there is limited research, previous NSSI literature has acknowledged that ambivalence occurs in NSSI and suggests that ambivalence toward the behaviour is often created by the simultaneous experience of the advantages and disadvantages of engagement (Grunberg & Lewis, 2015; Kelada et al., 2017; Norcross et al., 2011). There are a number of reasons reported for wanting to continue engaging in NSSI. Individuals may see value in the function it serves (affect regulation, self-punishment, communication etc). Individuals with low self-efficacy to resist self-injury may want to avoid the disappointment of relapse, as such, they hold onto the behaviour as an option to regulate emotion (Kelada et al., 2017). Others report feeling pride and pleasure over their self-inflicted injuries, and as such wish to continue the behaviour (Hambleton et al., 2020; Kelada et al., 2017). Research has found that some individuals may not be consciously aware of the function of their self-injury, or the related emotions surrounding an urge. As such, they do not know which strategies to use to regulate (Hasking et al., 2017). NSSI is perceived as more pragmatic than other means (e.g., exercise, substance use, cognitive reappraisal, support seeking; Hasking et al., 2017; Kelada et al., 2017; Nock et al., 2009). Conversely, individuals who engage in NSSI report a variety of reasons that they wish to cease the behaviour. For example, to minimise unwanted attention, reduce scarring, preserve relationships and be accepted by others, and to decrease shame (Deliberto & Nock, 2008; Gelinas & Wright 2013).

Much of the limited research on ambivalence in NSSI in embedded in the transtheoretical model (Norcross et al., 2011) of stages of change (Grunberg & Lewis, 2015; Kruzan & Whitlock, 2019; Kress & Hoffman, 2008). This model suggests that individuals

who want to cease self-injury do so through stages, from precontemplation (no conscious desire to change), contemplation, preparation, action, and maintenance (no self-injury for a 6-month period; Grunberg & Lewis, 2015; Kress & Hoffman, 2008). It is proposed at individuals in the earlier stages of change focus on the disadvantages, over the advantages of stopping self-injury. This shifts throughout recovery, where the individual later values the advantages over the disadvantages of stopping self-injury during the contemplation stage (Grunberg & Lewis, 2015; Kress & Hoffman, 2008). From this perspective, ambivalence is acknowledged as a component of behavioural change, where one can value both the advantages and disadvantages simultaneously. The transtheoretical model acknowledges ambivalence as competing reasons to engage/not engage in self-injury. While the model assumes that recovery from NSSI, including ambivalence, occurs when the individual has not self-injured for 6 months, recent research suggests that urges to self-inure continue beyond the 6-month cessation period outlined in the transtheoretical model (Kelada et al., 2017; Tan et al., 2019).

Hooley and Franklin (2017) conceptualise how the perceived benefits and costs of self-injury may co-occur when an individual is deciding whether to self-injure. The Benefits and Barriers model (Hooley & Franklin, 2017) outlines some of the possible perceived benefits to engaging in self-injury. These include improved affect, relief, the gratification of self-punishment, peer group affiliation, and communicating distress or strength. Conversely, the model also outlines some of the possible perceived barriers to engaging in self-injury, including a positive view of oneself, a desire to avoid physical pain, and aversion to self-injury related stimuli (e.g., blood). An individual may be aware of one or more benefits, and one or more barriers simultaneously, creating ambivalence in their decision to engage in self-injury. For instance, an individual may have a desire to self-injure because they believe it will provide relief from negative emotions (benefit), which can reinforce their desire to continue engaging in self-injury. However, societal norms deeming self-injury a negative behaviour may cause the individual to feel ashamed (barrier). A desire to experience relief at the cost of experiencing shame may create ambivalence toward engaging in self-injury. The perceived value of any one of the benefits or barriers to NSSI may resolve ambivalence, prompting the individual to either engage in, or avoid the behaviour. The Benefits and Barriers Model (Hooley & Franklin, 2017) acknowledges that the salience of a benefit or barrier may shift over time, and that further research is needed to explore what this may look like over the course of development.

Taken together, the limited research suggests that ambivalence is a complex experience and can occur at any time regardless of behavioural cessation. Ambivalence may also vary unique circumstances of the individual. In some research (Kelada, 2017; Tan et al., 2019), participants expressed ambivalence toward their recovery, given that they had relapsed or had ongoing urges to self-injure. This suggests a shift in ambivalence toward wanting to self-injure again after a period of cessation. Another common theme in the literature is the confusion experienced when an individual self-injures despite the desire not to (Kelada et al., 2017; Shaw, 2006; Tan et al., 2019). When an individual self-injures while trying to cease the behaviour, it may evoke feelings of shame, failure, or inadequacy. Such feelings may then perpetuate further self-injury to cope with the disappointment of re-engaging (Kelada et al., 2017; Tan et al., 2019). Understanding such complexity could have significant theoretical implications for understanding why individuals continue (or not) to self-injure, as well as practical implications for clinicians, family, and friends. However, such understanding requires research designs that can capture rich and varied lived experiences (see Chapter 4; Study 3).

Research Aim and Thesis Outline

Recognising that competing motives toward behaviour can exist simultaneously, and applying this perspective to NSSI, could provide a more comprehensive understanding of the complexities involved in decision making and behavioural outcomes for individuals who self-injure. This increased theoretical understanding may identify potential targets for intervention, which may minimise the risk of physical injury and psychological distress for the individual, potentially leading to a reduction in, or cessation of NSSI. Specifically, considering ambivalence may help health professionals, family, and friends, understand this seemingly counter-intuitive behaviour, and reduce shame and frustration associated with re-engagement or urges during the recovery process. Importantly, this is well-aligned with recent calls for a person-centred approach to treatment, which recognises recovery from NSSI as ongoing and non-linear (Lewis & Hasking, 2020; Lewis & Hasking, 2021; Tofthagen et al., 2017). Given this, the overarching aim of my doctoral research was to explore and understand experiences of ambivalence related to self-injury. This aim was addressed through three studies (detailed in the chapter summaries below).

Chapter 2: Cognitive and emotional factors associated with the desire to cease non-suicidal self-injury (Study 1)

In Chapter 2, I present my first study, *Cognitive and emotional factors associated with the desire to cease non-suicidal self-injury*. Most theories and models focus on how various

factors (e.g., cognitive, emotional) relate to self-injurious behaviour. However, desire to behave a certain way is a crucial step prior to any action. We know through intention behaviour experimental meta-analyses that there are often incongruencies between intention and behaviour (Rhodes & Dickau, 2012; Webb & Sheeran, 2006). This may be because of ambivalence, competing desires. The objective of Study 1 was to identify any cognitive emotional differences between *i)* desire to cease self-injury, and *ii)* behavioural cessation of self-injury. To do this, we explored NSSI-related emotional, and cognitive factors associated with a desire to stop self-injuring and determined the extent to which these factors are consistent with factors that differentiate individuals who have and have not ceased self-injuring.

Chapter 3: Profiling ambivalence in the context of non-suicidal self-injury (Study 2)

In Chapter 3, I present my second study, *Profiling ambivalence in the context of non-suicidal self-injury*. In other areas such as substance abuse, ambivalence is a well-known concept. Treatments such as motivational interviewing (DiClemente et al., 2017) are common, where clients identify and work through the costs and benefits of a behaviour. Additionally, substance use models account for competing desires, for instance the Ambivalence Model of Craving (Breiner et al., 1999). The objective of Study 2 was to use the Ambivalence Model of Craving as a theoretical framework to determine 1) whether individuals experiencing varying levels of ambivalence toward self-injury could be grouped into profiles of ambivalence, and 2) test whether these profiles differed across a range of constructs that are components of Ambivalence Model of Craving (Breiner et al., 1999).

Chapter 4: Why am I doing this? Ambivalence in the context of non-suicidal self-injury (Study 3)

In Chapter 4, I present my third study *Why am I doing this? Ambivalence in the context of non-suicidal self-injury*. The objective of Study 3 was to explore the lived experience of ambivalence among individuals with a history of self-injury, as well as the impact of ambivalence on their wellbeing and self-injurious behaviour.

Chapter 5: General Discussion

Chapter 5 comprises a general discussion that reviews the key findings and insights from my research, as well as the implications, limitations, and directions for future research.

Chapter 2

Cognitive and emotional factors associated with the desire to cease non-suicidal self-injury

The aim of the first study was to explore the potential incongruence between action and desire in the context of self-injury. Given many individuals continue to self-injure when they desire to stop, I assessed whether stopping (12-month cessation) was associated with the same factors as desire to stop the behaviour. Self-injury is most often used as an emotion regulation strategy. As such, I assessed constructs included in cognitive emotional models of NSSI (Hasking et al., 2015) to explore factors associated with *i)* stopping self-injury, and *ii)* desire to stop self-injury.

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Attributions

Author	Contribution	Acknowledgement
Nicole Gray	Development of research question and methodology, collection and management of data, collation and integration of theoretical components, manuscript preparation	
Penelope Hasking Mark Boyes	Assisted with development of research question and methodology, collation and integration of theoretical components, and manuscript preparation	
Journal permission for article inclusion can be found in Appendix A.		

Abstract

Background: Due to cognitive and emotional differences between individuals who have and have not stopped self-injuring, we explored these in the context of desire to stop. **Method:** Australian university students (n = 374) completed cognitive and emotional measures. Comparisons were made between those who had self-injured in the past 12 months and those who had not, and between individuals who reported wanting to stop self-injuring and those who did not. **Results:** Approximately 20% of participants did not want to stop self-injuring. Cognitive emotional factors (psychological distress, self-efficacy to resist, difficulties regulating emotion, interpersonal functions, and outcome expectancies) differentiated individuals who had and had not stopped, but could not explain differences in desire to stop. **Conclusion:** Factors associated with desire to stop are not the same as factors underlying behavioural cessation. Motivational approaches to changes in self-injurious behaviour would be beneficial for clinicians and their clients.

Keywords: Ambivalence; Non-suicidal self-injury; Cessation; Behaviour; Intention

Introduction

Non-suicidal self-injury (NSSI) is the direct and deliberate damage of one's own body tissue without suicidal intent (International Society for the Study of Self-Injury, 2018). Self-injurious behaviours include cutting, burning or scratching the skin, and self-battery (Nock, 2010). Non-suicidal self-injury is prevalent across clinical (20% of adult, 40-80% of adolescent) and community (13% of adult, 17% of adolescent) populations (Kaess et al., 2012; Klonsky & Muehlenkamp, 2007; Swannell et al., 2014). Pooled estimates for NSSI among university students are placed at approximately 20%, suggesting higher rates in university cohorts compared to the general population (Swannell, 2014).

Individuals report engaging in NSSI for a variety of reasons (self-punishment, avoiding suicide, communication of pain); however, the most common function of NSSI is to regulate unwanted emotional states (Klonsky & Glenn, 2009; Taylor et al., 2018). It is reported that NSSI reduces negative affect, providing relief for the individual in moments of distress, thus maintaining the behaviour through negative reinforcement (Chapman et al., 2007; Taylor et al., 2018).

The behaviour is often, though not always, associated with psychological disorders including depression, anxiety, and post-traumatic stress disorder (Bentley et al., 2015; Kiekens et al., 2018; Mars et al., 2014; Nock & Favazza, 2009; Whitlock et al., 2013). Additionally, while not performed with suicidal intent, there is also evidence linking ongoing NSSI to future suicidal thoughts and behaviours (Asarnow et al., 2011; Hazma et al., 2012; Kiekens et al., 2018; Scott et al., 2015; Whitlock et al., 2013). There may be an increase in frequency, number of methods used, and severity of NSSI over time (Andrews et al., 2013) and, in some cases, the behaviour can require hospital treatment (Owens et al., 2016). Negative reactions to disclosure (Staniland et al., 2020), and scarring (Lewis & Mehrabkhani, 2016) may perpetuate feelings of shame over the behaviour, leading to further NSSI. The short-term (e.g. shame, guilt; Tan et al., 2019) and long-term (e.g. scarring; Lewis & Mehrabkhani, 2016) outcomes of NSSI may cause further emotional distress for an individual (Andrews et al., 2013; Owens et al., 2016).

Given these negative correlates, it appears reasonable to view NSSI as an undesirable behaviour, which one would want to avoid, and numerous reasons to cease NSSI are pertinent in the mind of those who want to stop (e.g., to minimise unwanted attention; unwanted scars; preserve relationships with distressed family and friends; decrease personal shame; Deliberto & Nock, 2008; Gelinas & Wright, 2013). However, many individuals view NSSI as an effective coping strategy, asserting a desire to continue the behaviour due to *a)* the function it

serves (affect regulation, communication, facilitating a sense of control, feelings of safety) or *b)* to avoid the disappointment of re-engaging after a period of abstinence (Klonsky & Glenn, 2009; Kelada et al., 2017; Hambleton et al., 2020; Tan et al., 2019). Additionally, in some studies, participants report experiencing fascination, pride, and pleasure over their self-injurious behaviours (Hambleton et al., 2020). As such, the cessation of NSSI appears to be a complex process, driven by subjective perspectives on a range of factors (Shaw, 2006).

A number of studies have explored the differences between individuals who currently engage in NSSI and those who have stopped the behaviour (Andrews et al., 2013; Deliberto & Nock, 2008; Gelinas & Wright, 2013; Hambleton et al., 2020). In studies comparing individuals who have ceased self-injuring (usually defined as no self-injury in the past 12 months, e.g., Andrews et al., 2013; Kelada et al., 2017) with those who have not, individuals who continued to self-injure were more likely to report using it for intrapersonal reasons (e.g. Halpin & Duffy, 2020). Not surprisingly then, continued engagement in NSSI was also associated with elevated psychological distress and difficulties regulating emotion (Whitlock et al., 2015). An expectation that NSSI will help with affect regulation is also associated with continued engagement in the behaviour (Dawkins et al., 2019). In contrast, endorsing NSSI for interpersonal reasons (e.g., peer bonding), or expecting NSSI to result in physical pain are associated with cessation of the behaviour (Halpin & Duffy, 2020). Finally, individuals who have ceased self-injuring report higher self-efficacy to resist the behaviour than those who continue to self-injure (Dawkins et al., 2019; Tan et al., 2019).

Investigation into the factors differentiating individuals who have and have not ceased self-injurious behaviour is important, however, Grunberg and Lewis (2015) highlight that changes in self-injurious behaviour arise through changes in perceived costs and benefits of the behaviour. For example, NSSI may be beneficial as it reduces negative affect, yet may also cost the individual if the behaviour leads to negative social outcomes, shame, or regret (Hooley & Franklin, 2017). Reflected in motivational interviewing techniques, behaviour change often comes from a desire to change, following evaluations of the costs and benefits of the behaviour (Grunberg & Lewis, 2015; Kress & Hoffman, 2008; Prochaska et al., 1994).

While essential to the understanding of NSSI, an ongoing emphasis on behaviour overlooks a vital precursor, the desire to act on, or cease the behaviour. Gelinas and Wright (2013) explored factors contributing to the cessation of NSSI, finding that among those who had stopped, “a desire for wellness” (p. 380) was a recurrent theme for approximately 13% of individuals (p. 380). However, no particular reasons why they had a desire for wellness (e.g., interpersonal influence, intrapersonal emotions) were noted (Gelinas and Wright, 2013).

Comparably, Hambleton and colleagues (2020) reported that of the individuals who had stopped NSSI, approximately 11% reported a desire to feel healthy, and approximately 11% (not mutually exclusive) reported a desire to stop scarring, with the expectation that others would find it unacceptable. In this research there is limited understanding as to which specific factors may be driving this desire.

Many theories embedded in the substance use literature have long recognised the importance of cognition and emotion in substance use behaviours (Cox & Klinger, 1988; Koob, 2015; Tiffany et al., 1990). Previous research has explored cognitive and emotional processes relate to both substance use behaviour, and desire to use substances. For example, Barkby and colleagues (2012) found that anxiety and depression were higher among alcohol dependent participants than non-alcohol dependent participants. Dickson and colleagues (2013) found that positive and negative alcohol outcome expectancies were experienced more by individuals who once drank heavily and had stopped, than those who continued to drink socially. In terms of desire to engage in substance use, Greeley and colleagues (1993) found that positive desire for alcohol was associated with higher levels of stress and depressive affect, and lower levels of self-efficacy to resist drinking, compared to individuals who report negative desire. Williams and colleagues (2018) reported that individuals with high levels of negative affect had a greater desire to consume alcohol than individuals with lower levels of negative affect, and that their desire increased as they were exposed to social stress. The contribution of cognitive and emotional factors (e.g., emotion regulation, outcome expectancies, self-efficacy to resist NSSI) has been repeatedly identified in the research on the cessation of NSSI (e.g., Andrews et al., 2013; Deliberto & Nock, 2008; Kiekens et al., 2017). However, research could further clarify whether the reasons for stopping NSSI are similarly driven by cognitive or emotional processes; identifying the thoughts and feelings around wanting to stop/continue may provide useful treatment and intervention targets. This study aims to explore the NSSI-related, emotional, and cognitive factors associated with a desire to stop self-injuring or not, and determine the extent to which these factors are (or are not) consistent with factors that differentiate individuals who have and have not ceased self-injuring.

Method

Participants

The sample comprised 374 participants attending a total of twenty-eight universities across Australia. The majority of these (75%) were recruited though the Curtin University School of Psychology undergraduate participation pool. All other participants were recruited

via advertising through their student guild. All participants had engaged in NSSI at some point in their lives. The sample was aged between 18 and 52 (M =23.58, SD = 4.19). Of the sample 301 (80.7%) were female, 62 (16.6%) were male, and 10 (2.7%) identified as another sex. The mean age for initial engagement in NSSI was 14 years (SD = 3.28). The majority of participants (n = 163, 45.7%) considered cutting to be their main form of the behaviour, with self-battery (n = 48, 13.4%) the next most frequently reported. 318 (96.1%) participants reported experiencing pain when they self-injured.

Materials

Alongside sociodemographic information (age and sex), the following measures were included in the study.

Psychological Distress: Levels of depression, anxiety, and stress were assessed using the 21-item Depression Anxiety and Stress Scale (DASS-21; Lovibond & Lovibond, 1995). Participants were asked how often they had experienced given symptoms in the last four weeks. Responses were recorded on a four-point Likert scale (*0 = never; 3 = almost always*). This measure has demonstrated convergent validity (Lovibond & Lovibond, 1995), correlating strongly with the Beck Depression Inventory (r = .74; Beck & Steer, 1987) and the Beck Anxiety Inventory (r = .81; Beck & Steer, 1990). Internal consistency has been demonstrated in previous studies (a = .91; Lovibond & Lovibond, 1995). Good internal consistency was also demonstrated within the present sample (depression, α = .93; anxiety, α = .87; and stress, α = .87.

Difficulties in Emotion Regulation: Difficulties in emotion regulation were assessed using the Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004). This is a 36-item measure assessing participants' perceived difficulties regulating emotion. Item responses are recorded on a five-point Likert scale (*1 = almost never; 5 = almost always)*. Higher scores indicate greater difficulty regulating emotion. The measure assesses overall difficulties, as well as six specific components of emotion regulation: non-acceptance of emotions; difficulties with goal-oriented behaviours; difficulties managing impulsive behaviours; limited awareness of emotion; difficulties accessing regulation strategies; difficulties clarifying emotional experiences. The DERS has demonstrated strong construct validity alongside mood regulation scales, avoidance, and expression of emotions (Gratz & Roemer, 2004). The measure demonstrated strong internal consistency across all subscales in previous studies; Non-acceptance (α = .85). Goals (α = .89), Impulse (α = .88), Awareness (α = .80), Strategies (α = .88), Clarity (α = .84; Gratz & Roemer, 2004). Internal consistency was acceptable across the individual subscales in the current sample; Non-acceptance (α =

.93); Goals (α = .87); Impulse (α = .89), Awareness (α = .84), Strategies (α = .91), Clarity (α = .87).

Outcome Expectancies: Non-suicidal self-injury related outcome expectancies were assessed using the Non-Suicidal Self-Injury Expectancies Questionnaire (NEQ; Hasking & Boyes, 2017). The measure comprises 25 items asking the perceived likelihood of a given outcome when engaging in NSSI. Reponses are recorded on a four-point Likert scale (1 = *extremely unlikely,* 4 = *extremely likely*) across five subscales: affect regulation (e.g., "I would feel less frustrated with the world"); negative social experiences (e.g., "My friends would be disgusted"); communication (e.g., "I would get care from others"); pain (e.g., "I would feel physical pain"); and negative self-beliefs (e.g., "I would hate myself"). Strong internal consistency across all five subscales has been demonstrated in previous studies (Dawkins et al., 2019). In the current sample, internal consistencies were adequate to excellent (affect regulation α = .69; negative social outcomes α = .86; communication α = .91; negative self-beliefs α = .81; pain α = .84).

Self-Efficacy: Self-efficacy to avoid self-injury was measured using an adaptation of the 6-item Self-Efficacy to Avoid Suicidal Action Scale (Czyz et al., 2014). The adapted version (Hasking & Rose, 2016) measures an individual's perceived ability to resist engaging in NSSI. Six items (e.g., "How certain are you that you will not self-injure in the future?") are responded to on a six-point Likert scale (1 = *very uncertain,* 6 = *very certain*). Higher scores indicate greater perceived self-efficacy to resist NSSI. The measure has demonstrated strong internal consistency in previous studies and can differentiate individuals with and without a history of NSSI (Hasking & Rose, 2016; Hasking et al., 2018). Internal consistency was excellent in the current sample (α = .91).

NSSI Characteristics: Non-suicidal self-injury characteristics were assessed with the Inventory of Statements about Self-Injury (ISAS; Klonsky & Glenn, 2009). Lifetime history of NSSI was assessed using Section I of the ISAS. Participants were provided with a definition of non-suicidal self-injury, followed by questions regarding lifetime history, frequency, recent (12-month) engagement, and main method of NSSI. This section has demonstrated good test-retest reliability (r = .85) and good construct validity (Klonsky & Olino, 2008). Functions of NSSI were assessed using Section II of the ISAS. Functions are divided into two higher order factors; intrapersonal (e.g., affect regulation, self-punishment) and interpersonal (e.g., marking distress, peer bonding). Section II has demonstrated acceptable test-retest reliability, ranging from r = .35 to r = .89 (Glenn & Klonsky, 2011). Internal consistency for each factor has also been demonstrated previously (interpersonal, α =

.88; intrapersonal, α = .80; Klonsky & Glenn, 2009). Both subscales demonstrated good internal consistency among the current sample (interpersonal, α = .90; intrapersonal, α = .86). Lower order subscales for intrapersonal functions demonstrated acceptable internal consistency (intrapersonal: Affect, α = .73; self-punishment, α = .81; anti-dissociation, α = .82; anti-suicide, α = .88; distress, α = .77). Lower order subscales for interpersonal functions also demonstrated acceptable internal consistency (interpersonal: interpersonal boundaries, α = .79; self-care, α = .68; sensation seeking, α = .67; peer bonding, α = .85; interpersonal influence, α = .72; revenge, α = .84; autonomy, α = .83).

Procedure

Ethical approval was gained from Curtin University's Human Research Ethics Committee before data were collected. Participants were sampled from the university's online research participant pool and from other universities around Australia. Participants were recruited to take part in three studies (*n = 196; 119; 57)* exploring intrapersonal and interpersonal factors associated with NSSI, and data were merged for the current analyses. Participants recruited from within the university's research participant pool were given points toward course credit. Participants recruited from other universities entered a draw to win an iPad, or one of 10 $25 gift cards in exchange for participation. Participants completed an online questionnaire, which was hosted on Qualtrics. The overarching questionnaires took approximately 45-60 minutes to complete. On completion, participants were given information detailing contacts for counselling assistance and information about non-suicidal self-injury.

Data Analysis

Data were analysed using IBM SPSS Statistics Version 27. Although not missing completely at random [$\chi^2(7903) = 8236.96$, $p = .004$], given the minimal missing data (< 2%) across scales, expectation maximisation was used to impute missing data. A series of one-way MANCOVAs, with appropriate follow-up analyses, were conducted to test differences between those who had stopped self-injuring (no self-injury in the past 12 months) and those who had not, as well as those who wanted to stop self-injuring and those who did not (Table 2.1). Interactions were tested between cessation of NSSI, and desire to stop, across all variables (Table 2.2). Due to the correlation between sex and a number of variables included in the analyses (Supplementary Tables 2.1-2.4), this variable was included as a covariate. Participants who identify as a sex other than male or female (n = 11) were excluded from the analysis due to insufficient numbers when analysing sex differences. Statistical significance was set at $\alpha \leq .05$ for main effects and interactions.

Results

Two hundred and ten (56.1%) participants reported engaging in NSSI in the previous 12 months, with 164 (43.9%) reporting no NSSI in the last 12 months. Of those who had self-injured in the last 12 months, 84 (40%) had self-injured more than 5 times that year. Of the sample, 299 (79.9%) individuals reported a desire to stop self-injuring, while 75 (20.1%) reported that they did not want to stop self-injuring. Of those who wanted to stop injuring, 165 (55.2%) had engaging in NSSI in the past 12 months, and 134 (44.8%) had not engaged for at least 12 months. Of those who did not want to stop engaging in NSSI, 45 (60%) had self-injured in the past 12 months, while 30 (40%) had not engaged for at least 12 months.

Multivariate analyses revealed several main effects differentiating individuals who had a recent history of NSSI and those who did not (Table 2.1). Appropriate univariate follow-up analyses indicated that individuals who had stopped self-injuring experienced less psychological distress (depression, anxiety, stress) than individuals who had not stopped self-injuring; Individuals who had stopped self-injuring had less difficulty regulating their emotions (non-acceptance, impulsivity, strategies) than individuals who had not stopped self-injuring; NSSI was expected to be more physically painful for individuals who had not stopped self-injuring, than those who had stopped. Individuals who had stopped NSSI had more self-efficacy to resist engaging in the behaviour than those who had not stopped. Individuals who had stopped NSSI self-injured less for intrapersonal reasons (affect regulation, self-punishment, anti-suicide, marking distress) than those who had not stopped. Main effects were also found between those who wanted to stop engaging in NSSI and those who did not want to stop, whereby individuals who did not want to stop engaging in NSSI used the behaviour more for interpersonal functions, specifically, as a means of sensation seeking. Individuals who did not want to stop engaging in NSSI also experienced less difficulties with emotion regulation, particularly awareness of emotions. No significant interactions were found (Table 2.2).

Table 2.1

Descriptive statistics and group differences on each of the variables of interest

	Have you stopped?						**Do you want to stop?**					
	Have not stopped	**Have stopped**					**Do not want to stop**	**Do want to stop**				
	M(CI)	***M(CI)***	***Λ***	***F***	***p***	η_p^2	***M(CI)***	***M(CI)***	***λ***	***F***	***P***	η_p^2
DASS			.93	8.27	**< .001**	.07			.99	1.47	.222	.01
Depression	17.85	14.25		22.04	**< .001**	.06	16.41	15.69		.89	.348	.003
	(16.87, 18.83)	(13.11, 15.40)					(15.06, 17.77)	(15.03, 16.35)				
Anxiety	15.76	13.51		11.16	**.001**	.03	14.41	14.87		.47	.495	.001
	(14.90, 16.62)	(12.50, 14.52)					(13.21, 15.60)	(14.29, 15.45)				
Stress	18.09	15.23		19.13	**< .001**	.05	16.48	16.83		.28	.595	.001
	(17.25, 18.92)	(14.25, 16.21)					(15.32, 17.64)	(16.27, 17.40)				
DERS			.93	3.57	**.002**	.07			.95	2.16	**.047**	.05
DERS-aware	16.22	14.75		3.65	.057	.01	14.53	16.44		6.04	**.015**	.02
	(15.35, 17.10)	(13.50, 15.99)					(13.15, 15.91)	(15.78, 17.10)				
DERS-clarity	13.73	13.56		.06	.805	< .001	13.34	13.96		.81	.368	.003
	(12.95, 14.52)	(12.45, 14.68)					(12.10, 14.57)	(13.37, 14.55)				

DERS-goals	18.64	17.58	2.19	.140	.01	18.06	18.16	.02	.891	< .001
	(17.83, 19.45)	(16.42, 18.74)				(16.78, 19.34)	(17.55, 18.77)			
DERS-impulse	16.91	14.37	8.35	**.004**	.03	15.11	16.18	1.46	.228	.01
	(15.92, 17.91)	(12.95, 15.79)				(13.54, 16.68)	(15.43, 16.93)			
DERS-	19.05	16.46	7.00	**.009**	.03	17.14	18.37	1.57	.211	.01
nonacceptance	(17.94, 20.15)	(14.89, 18.04)				(15.40, 18.88)	(17.54, 19.20)			
DERS-strategies	26.80	22.75	12.64	**< .001**	.04	24.90	24.66	.04	.837	< .001
	(25.51, 28.10)	(20.91, 24.59)				(22.86, 26.93)	(23.69, 25.63)			
NEQ & SEAS			.76	17.57	**<.001**	.24		.99	.33	.920	.01
Affect reg	12.73	13.05	.45	.504	.001	12.89	12.88	.001	.976	<.001
expectancies	(12.13, 13.33)	(12.32, 13.77)				(12.05, 13.74)	(12.47, 13.29)			
Negative social	12.76	12.30	.57	.453	.002	12.66	12.40	.02	.663	.001
expectancies	(12.00, 13.51)	(11.39, 13.22)				(11.59, 13.73)	(11.89, 12.91)			
Communication	11.34	12.66	3.807	.052	.011	11.62	12.38	1.25	.264	.002
expectancies	(10.50, 12.19)	(11.64, 13.68)				(10.43, 12.82)	(11.80, 12.95)			
Pain	13.43	11.95	7.01	**.008**	.02	12.95	12.43	.89	.345	.003
expectancies	(12.73, 14.13)	(11.11, 12.79)				(11.97, 13.94)	(11.95, 12.90)			
Neg self-belief	12.62	12.23	.49	.483	.001	12.65	12.21	.62	.433	.002
expectancies	(11.93, 13.32)	(11.40, 13.07)				(11.66, 13.63)	(11.74, 12.68)			

Self-efficacy to resist NSSI	18.10 (16.85, 19.35)	27.86 (26.36, 29.37)		96.27	**<.001**	.23	23.20 (21.44, 24.97)	22.76 (21.91, 23.61)		.20	.655	.001
Intrapersonal total			.95	3.77	**.003**	.05			.96	2.66	**.023**	.04
Affect regulation	7.61 (7.33, 7.88)	6.95 (6.63, 7.27)		9.21	**.003**	.03	7.46 (7.08, 7.84)	7.10 (6.91, 7.29)		2.71	.100	.01
Self-punishment	7.00 (6.66, 7.33)	6.17 (5.79, 6.56)		10.13	**.002**	.03	6.38 (5.92, 6.83)	6.79 (6.56, 7.02)		2.61	.107	.01
Anti-dissociation	5.34 (5.00, 5.68)	5.22 (4.83, 5.62)		.18	.674	.001	5.29 (4.82, 5.76)	5.27 (5.04, 5.51)		.003	.957	< .001
Anti-suicide	5.09 (4.75, 5.44)	4.42 (4.03, 4.82)		6.21	**.013**	.02	4.51 (4.04, 4.99)	5.00 (4.76, 5.24)		3.27	.072	.01
Marking distress	5.46 (5.14, 5.79)	4.72 (4.34, 5.10)		8.57	**.004**	.02	4.90 (4.46, 5.35)	5.27 (5.05, 5.50)		2.13	.145	.01
Interpersonal total			.97	1.35	.220	.03			.96	1.86	.066	.04
Interpersonal boundaries	3.99 (3.73, 4.26)	4.01 (3.71, 4.30)		.01	.945	< .001	4.08 (3.73, 4.44)	3.92 (3.74, 4.10)		.64	.426	.002
Self-care	4.23	4.14		.22	.640	.001	4.25	4.13		.34	.560	.001

	(3.98, 4.49)	(3.85, 4.44)				(3.90, 4.60)	(3.95, 4.31)			
Sensation	3.84	3.85	.01	.946	<	4.05	3.64	6.84	**.009**	.02
seeking	(3.64, 4.04)	(3.62, 4.08)			.001	(3.78, 4.33)	(3.50, 3.78)			
Peer bonding	3.19	3.25	.31	.583	.001	3.25	3.19	.30	.580	.001
	(3.06, 3.32)	(3.10, 3.40)				(3.07, 3.43)	(3.11, 3.28)			
Interp influence	3.94	3.78	.69	.407	.002	3.72	4.00	2.31	.129	.01
	(3.70, 4.18)	(3.51, 4.06)				(3.40, 4.04)	(3.84, 4.16)			
Toughness	4.25	4.42	.70	.403	.002	4.46	4.22	1.48	.225	.004
	(3.99, 4.51)	(4.13, 4.72)				(4.11, 4.81)	(4.04, 4.39)			
Revenge	3.57	3.33	2.31	.130	.01	3.44	3.47	.04	.851	< .001
	(3.37, 3.78)	(3.10, 3.57)				(3.16, 3.72)	(3.33, 3.61)			
Autonomy	3.75	3.47	2.60	.108	.01	3.61	3.61	<.001	.985	< .001
	(3.52, 3.98)	(3.21, 3.73)				(3.30, 3.92)	(3.46, 3.77)			

Note: Significant *p* values are bolded. *M* = Estimated marginal means adjusting for sex and age. Sex coded as Male = 1; Female = 2

Table 2.2

Have stopped NSSI x Want to stop NSSI interactions on each of the variables of interest

	Λ	F	p	η_p^2
DASS	.98	1.79	.15	.02
DERS	.97	1.27	.27	.03
NEQ & SEAS	.99	.48	.82	.01
Intrapersonal	.97	1.92	.09	.03
Interpersonal	.95	1.96	.05	.05

*$p < .05$. Sex coded as Male = 1; Female = 2

Discussion

Research investigating the desire to self-injure as a separate construct from having stopped self-injuring is limited. The purpose of this study was to explore potential emotional and cognitive factors that differentiate individuals who have stopped engaging in NSSI from individuals who have not stopped, and individuals who have a desire to stop engaging in NSSI, from those who do not have a desire to stop. Identifying the differentiating factors between these groups will allow for a comparison of factors contributing to action vs desire regarding self-injurious behaviours. Additionally, exploring differentiating factors between individuals who want to stop engaging in NSSI and individuals who do not want to stop is an important first step in identifying treatment targets for this cohort, and potentially removing barriers to the wellbeing of those who are experiencing this paradox.

Three key findings emerged from this study. Firstly, one fifth of individuals with a history of NSSI do not wish to stop self-injuring. As mentioned, there are several negative outcomes associated with NSSI (Andrews et al., 2013; Kiekens et al., 2018; Lewis & Mehrabkhani, 2016; Staniland et al., 2020; Owens et al., 2016). Because of the negative outcomes associated with NSSI, it is tempting to assume that individuals who engage in the behaviour want to stop. NSSI is already a highly stigmatised behaviour, and experiences of stigma are a significant barrier to help-seeking (Rowe et al., 2014; Staniland et al., 2020). Compared to individuals who do want to stop, the fear of disclosure and help seeking may be even higher for individuals who do not wish to give up such a highly stigmatised behaviour.

Further, wanting to stop engaging in a behaviour is not the same as wanting to avoid experiencing the outcomes of the behaviour. Individuals with persistent and ongoing NSSI

often increase the frequency and severity of their behaviour over time (Andrews et al., 2013). As the outcomes of NSSI get worse, a proportion of individuals may wish to avoid these outcomes, while simultaneously wanting to continue to engage in NSSI. A person-centred recovery framework proposed by Lewis and Hasking (2021) may be beneficial for these individuals. Normalising re-engagement and ongoing urges, identification of alternative activities/behaviours, navigating disclosures, and addressing scarring may be focal points for individuals who have little interest focusing on cessation of the behaviour itself.

A second key finding of this study suggests that holding a desire to stop engaging in NSSI does not necessarily lead to behavioural cessation. Of individuals who do want to stop, 55% had self-injured in the past 12 months. Previous research suggests that the target goal in treatment and intervention is often cessation of NSSI (Grunberg & Lewis, 2015; Kamen, 2009; Tatnell et al., 2014). Many conceptualisations of recovery focus on abstinence of the behaviour for 6 – 12 months (Andrews et al., 2013; Grunberg & Lewis, 2015; Kress et al., 2008; Kruzan & Whitlock., 2019; Tatnell et al., 2014). Yet individuals with lived experience of NSSI view recovery with more nuance than cessation only; healthy relationships, emotional wellbeing, daily functioning, and self-acceptance are just some of the many facets of recovery regarded by those with lived experience (Buser et al., 2013; Tofthagen et al., 2017; Lewis et al., 2019; Lewis & Hasking 2020; 2021). Results from the current study coincide with this more complex conceptualisation of recovery; of those who indicated that they did not want to stop the behaviour, 40% had in fact stopped for the amount of time required to categorise them as recovered by current research and clinical standards.

Lastly, researchers have repeatedly identified the main factors differentiating individuals who have stopped self-injuring, and individuals who have not stopped (Andrews et al., 2013; Kiekens et al., 2017; Tatnell et al., 2013). Results from this study reveal that the factors differentiating individuals who have stopped from those who have not, are different from the factors differentiating individuals who want to stop from those who do not want to stop. Specifically, consistent with traditional cognitive emotional models of NSSI, individuals who are still engaging in NSSI report greater use of the behaviour for intrapersonal reasons, such as to regulate negative affect. They also report greater psychological distress, more difficulties regulating their own emotions, and lower belief in their ability to resist self-injuring across several contexts.

In contrast, not only were the factors driving desire to stop and actioned behaviour different, but very few of the assessed factors were found to differentiate individuals who did and did not want to stop. This may reflect some of this underlying ambivalence for those who

did not want to stop but had. These individuals are not self-injuring, but view themselves in a similar way to those who are still self-injuring. To classify 12-month cessation as recovery neglects a significant population of people who perceive themselves as still engaging in the behaviour. Self-injurious thoughts, psychological distress, and expectations of engaging in the behaviour appear to continue for many individuals, despite their 12-month cessation. It is possible that NSSI was effective in the past but has recently stopped providing the same emotion regulatory capabilities it once did, and as such has not been used. Perhaps these individuals have found alternative coping strategies, while still holding onto the availability of NSSI should it be needed. Alternatively, perhaps they have not found alternative coping strategies, and are struggling to resist engaging in the behaviour. Assuming that these individuals have either "moved on" to alternative strategies, or are resisting engagement in NSSI, a critical opportunity for intervention may reside here. In this sample, not wanting to stop NSSI was associated with sensation seeking functions; interventions aimed at providing valued alternative, sensation inducing behaviours may be beneficial.

Effect sizes for factors differentiating participants having stopped self-injuring from continuing to self-injure ranged between small (marking distress) to large (self-efficacy to resist NSSI). Effect sizes for factors that differentiated wanting to stop engaging in NSSI from not wanting to stop ranged between small (sensation seeking) and medium (difficulties with emotion regulation). These effects may be important in contributing to the desire to change self-injurious behaviours, precipitating actual cessation. Taken together, these findings present an assortment of factors for clinicians to consider when working with individuals who self-injure.

Together, these findings reveal the complexities of NSSI cessation. Inconsistencies between desire and actioned behaviour suggest that they should be treated as separate constructs, potentially driven by different factors, and should be conceptualised independently during treatment. An individual may hold a desire to change a behaviour, possibly leading to a conscious intention to do so. Yet studies exploring cessation of various behaviours including smoking (McWilliams et al., 2019) and physical activity (Rhodes & de Brujin, 2013) indicate that intention only partially predicts behaviour change; only 30-40% of behaviour change is explained by intention to change (Armatige & Conner, 2001; Rhodes & de Brujin, 2013). Several alternative factors may moderate this relationship, including attitude, personality, self-efficacy, intrinsic vs extrinsic motivation, and missed opportunities, or forgetting to act on the intention (Faries, 2016; Sheeran & Webb, 2016). Such factors may

be useful in explaining a proportion of the clear discrepancy between desire to stop self-injuring, and actual behavioural cessation.

Theoretical Implications

Many of the existing theories on NSSI recognise that there are perceived benefits for those who engage in the behaviour (Hasking et al., 2017; Hooley & Franklin, 2007; Nock 2010). The benefits and barriers model by Hooley and Franklin (2017) illustrates how a mixture of components may incentivise or deter one from self-injuring. The model includes both internal processes (affect, self-worth) and external influences (lack of self-injury exposure, aversion self-injury stimuli such as blood or knives) to predict self-injurious behaviour. Perhaps this expansion from purely cognitive-emotional factors may better explain desire for/avoidance of NSSI. While it is valuable to know that benefits and barriers to NSSI can exist simultaneously, when considering behaviour, such models only allow for one of two possible outcomes (you cannot both self-injure and not self-injure in any given moment). However, in terms of desire it is possible to hold competing beliefs regarding both wanting and not wanting to cease the behaviour.

Ambivalence in NSSI is felt during the existence of simultaneous contradictory or opposing beliefs, feelings, or desires toward the behaviour (Gray et al., 2021; Grunberg & Lewis, 2015; Kelada et al., 2017; Norcross et al., 2011; Shaw, 2006). The inconsistencies between desire to stop and actioned behaviour in these results suggest a level of conflict, pointing toward ambivalence around individuals' experience of NSSI. Reports such as these are common among individuals who engage in NSSI; some describe confusion, frustration, and uncertainty about why they continue to engage in the behaviour when they do not want to (Tan et al., 2019), others understand their own ambivalence, describing specific reasons why they want to stop (e.g., social judgment), with an awareness that NSSI works to regulate their emotion and they will likely engage again, despite the desire not to (Kelada et al., 2017; Shaw, 2006).

While traditional cognitive emotional models used to illustrate cessation of NSSI do not predict desire to cease the behaviour, the model of ambivalence taken from the substance use literature (Breiner et al., 1999) may be more suitable. The Ambivalence Model includes historical factors (reactivity, personality, socio-cultural environment, personal experiences, past reinforcement); immediate factors (immediate positive and negative incentives, valued alternative behaviours); outcome expectancies, and illustrates how these factors interplay, leading to a desire for engagement in a particular behaviour, and a desire to avoid engagement in the same behaviour, simultaneously (Breiner et al., 1999). Further research is

necessary to determine whether the factors in the Ambivalence Model account for the differentiation between wanting to stop, or not wanting to stop engaging in NSSI.

Clinical implications

Compared to individuals who wanted to stop self-inuring, individuals who did not want to stop engaging in NSSI were more likely to report that the behaviour was a form of sensation seeking. However, many of these individuals had not self-injured in 12 months or more. The period in which one resists engaging in NSSI, while continuing to desire its effects, may be a crucial turning point in terms of intervention. The use of alternative activities has been reported as a component of recovery for those who no longer engage in NSSI (Tofthagen et al., 2017). In a study by Tofthagen and colleagues (2017) participants deeming themselves as recovered from NSSI attributed partial success to their engagement in activities such as education, music, physical activity, breathing exercises, watching television, writing, and the formation of stable, gratifying relationships. These activities may induce sensation or "add something", though alcohol use, drug use, and fire-setting are also associated with both NSSI, and sensation seeking (Bresin & Mekawi, 2020; Hasking, 2017; Hasking & Claes, 2020; Mackay et al., 2009; Moran et al., 2014; Tanner et al., 2015). Individuals who do not want to stop engaging in NSSI require further consideration, both in research and in clinical practice. Interventions focused solely on emotion regulation skills may not be suitable for certain individuals, with the potential for negative consequences if their desire for sensation is overlooked.

Clinicians would benefit from understanding the factors which may motivate an individual to want to stop engaging in NSSI. It would be beneficial to further consider the emotional, cognitive, environmental, and behavioural factors associated with desire toward NSSI. Including these factors allows intervention efforts to acknowledge competing desires towards both engagement, and cessation of self-injurious behaviours. Motivational approaches to treatment embrace ambivalence as a natural, and necessary component of decision making and behavioural change (Kress & Hoffman, 2008). Recent conceptualisations of NSSI recovery delineate conflicting desires, continued urges, and fluctuating behaviours as expected components in the multidimensional process of recovery (Lewis & Hasking, 2020). With this perspective, individuals with lived experience, personal support networks, and clinicians may understand how desire for behaviour change plays a role in treatment efforts, and create treatment goals accordingly.

Limitations & suggestions for future research

In the current study, the only items regarding NSSI cessation were "Do/did you want to stop self-injury" with a binary yes/no response. Asking participants only if they want to stop may be over simplistic. Given that the current literature on NSSI recognises the existence of ambivalence (Gray et al., 2021; Kelada et al., 2017), and competing desires to stop/continue, more detailed items on this construct would be beneficial in future studies. We recommend exploring the extent to which people want to stop, and the extent to which they do not want to stop engaging in NSSI, avoiding all or nothing extremes of a) not having no desire to stop whatsoever, or b) having no desire to continue whatsoever.

The data used for this study were cross sectional in nature. Self-injurious behaviours and their surrounding factors, including desire to stop, fluctuate over time (Grunberg & Lewis, 2015; Lewis et al., 2019; Whitlock et al., 2015). The factors contributing to the desire for NSSI may be best explored longitudinally. Alternatively, ecological momentary assessment (EMA) studies may capture the salience of factors at differing levels of desire. Unlike retrospective assessment which inherently includes an element of memory bias, EMA research may be used practically, providing real-time feedback to participating individuals. EMA applications may provide information and prompts for its users, should they desire support while experiencing uncomfortable emotions (Rodriguez-Blanco et al., 2018). This allows for data collection, while assisting individuals through short-term fluctuations, and rapidly changing, or conflicting desires.

Additionally, the dataset used for this study included variables that were informed by previous research on the differences between individuals who had, and individuals who had not stopped engaging in NSSI. It would be beneficial to include variables informed by research regarding desire to stop engaging in NSSI. Drawing on models of ambivalence and incorporating measures of these constructs would be important going forward. Further research could explore potential factors contributing to experiences of ambivalence, as highlighted by the current findings.

Conclusion

Our findings demonstrate the complexities behind NSSI recovery. Results of the current study demonstrate that active cessation of NSSI, and desire for cessation of NSSI are in fact driven by different factors. An exploration of the factors leading to differing levels of ambivalence toward engagement in NSSI will better predict whether an individual is likely to want to stop, or not want to stop their self-injurious behaviour. Motivational approaches

toward self-injurious behaviours may highlight potential treatment targets, and resolve ambivalence toward behavioural change.

Chapter 3

Profiling ambivalence in the context of non-suicidal self-injury

When using a binary no/yes outcome in Study 1, differences were found between individuals who had and had not stopped self-injuring, but few differences were found between individuals who wanted and did not want to stop. I hoped to find differences between individuals who wanted and did not want to stop self-injuring when ambivalence was accounted for. As such, in Study 2 I included measures which captured the extent to which an individual wanted to, and the extent they did not want to engage in self-injury. Given this multidimensional approach, I hoped for more nuanced responses regarding ambivalence toward self-injury. Additionally, I aimed to compare differences between groups on constructs from the Ambivalence Model of craving (Breiner et al., 1999 – see Table 3.1). The Ambivalence Model of craving was originally used to explain an individuals' desire to consume alcohol (Breiner et al., 1999). The model proposes that wanting to drink (approach), *and* not wanting to drink (avoid) both exist on a spectrum of intensity. Multiple preceding factors are thought to determine the level of ambivalence an individual has toward drinking behaviours. These factors include historical factors (personality, past-reinforcement), and immediate factors (context of the environment; i.e., immediate incentives, outcome expectancies). To test the utility of the Ambivalence Model in the context of NSSI, the cognitive and emotional variables used in Study 1 were tested in Study 2, with the addition of historical factors, immediate factors, and NSSI characteristics.

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Attributions

Author	Contribution	Acknowledgement
Nicole Gray	Development of research question and methodology, data management and analysis, interpretation of results, and manuscript preparation	
Ethan Pemberton Hannah Uren Mark Boyes	Assisted with development of research question, interpretation of results, and manuscript preparation	

Abstract

Background: We aimed to identify profiles of ambivalence among individuals with a history of self-injury and tested whether profiles differed across various theoretically-informed constructs: NSSI-related characteristics, cognitive (outcome expectancies, self-efficacy to resist NSSI), emotional (psychological distress, difficulties in emotion regulation), personality, and incentives to engage/not engage in NSSI. **Methods:** Individuals with a lifetime history of NSSI (n = 224) reported the extent to which they wanted to and did not want to engage in NSSI and completed well-validated measures of the constructs of interest. **Results:** Latent profile analysis indicated four ambivalence profiles (Avoid: n = 39; Moderately ambivalent: n = 85; Highly ambivalent: n = 30; Approach: n = 70). The profiles differed across a number of NSSI-related characteristics, cognitive, emotional, and incentive-related variables. Differences between the ambivalence profiles and the avoid/approach profiles varied across constructs. For example, the ambivalence and approach profiles were similar for NSSI-related outcome expectancies, but the ambivalence and avoidance profiles were similar for self-efficacy to resist NSSI. **Conclusion:** Findings highlight variation between the desire to engage or not engage in NSSI that are consistent with the notion of ambivalence. Understanding these differences may allow for a more person-centred approach in treatment for NSSI.

Keywords: Ambivalence; Non-suicidal self-injury; Desire; Behaviour; Profiles

Introduction

Non-suicidal self-injury (NSSI) is defined as the deliberate damage to one's own body tissue without suicidal intent (International Society for the Study of Self-injury, 2018). Self-injurious behaviours include cutting and burning the skin (Klonsky & Glenn, 2009). Clinical prevalence of the behaviour is approximately 20% among adults, and 40-80% among adolescents (Klonsky & Muehlenkamp, 2007). Community prevalence is approximately 13% among young adults aged 18-24, and 17% among adolescents aged 10-17. Among university samples, NSSI prevalence reaches approximately 20% (Swannell et al., 2014). Individuals report engaging in NSSI as a form of self-punishment, anti-dissociation, and to regulate unwanted emotion (Taylor et al., 2018). Although not suicidal in nature, NSSI may be associated with future suicidal thoughts and behaviours and other psychopathology, potentially worsening over time (Kiekens et al., 2018). A highly stigmatised behaviour, self-injury may lead to fear of judgement, and ongoing shame when one discloses their behaviour, possibly perpetuating further self-injury (Staniland et al., 2020). While engagement in NSSI may lead to negative outcomes and distress, many individuals who engage in the behaviour also report benefits, including emotional relief, the ability to communicate distress, and expressions of strength. As such, there may be continued engagement in NSSI despite the associated negative outcomes. Recent findings suggest that approximately 20% of individuals with a history of self-injury do not want to stop the behaviour (Gray et al., 2022).

Current theories of self-injury focus on the behaviour itself; typically attempting to explain the likelihood of engaging in NSSI or not (see Hasking et al., 2017 for a review). However, it may be beneficial to consider the step before engagement in self-injury – the desire to self-injure (Gray et al., 2022). Desire as a preceding factor to behaviour has long been acknowledged in the substance use literature (Breiner et al., 1999). The substance use literature recognises that individuals may consciously desire one thing, while simultaneously holding a competing desire; referred to as ambivalence in craving (Breiner et al., 1999; Schlauch et al., 2015). The Ambivalence Model (Breiner et al., 1999) proposes that desire to engage in a behaviour (approach) or avoid engaging in the behaviour (avoid) may both exist on a continuum. The model includes historical factors (e.g., reactivity, personality, and past reinforcement); immediate factors (incentives); and outcome expectancies. The interaction of these factors may generate an in the moment level of desire to, and not to engage in substance use (Breiner et al., 1999). According to the model, these preceding factors will lead to varying inclinations for craving, conceptualised into 4 quadrants – avoid, moderately ambivalent, highly ambivalent, and indifferent (Breiner et al., 1999). Schlauch and colleagues

(2015) validated the concept of ambivalence among individuals who engage in substance use, profiling their sample into five groups; indifferent, approach, avoid, moderately ambivalent, and highly ambivalent. Additionally, approach and highly ambivalent profiles engaged in more drinking, and more negative outcomes in comparison to other profiles. In contrast, participants with avoidance and ambivalent inclinations were more likely than other profiles to have admitted themselves into a substance use treatment program (Schlauch et al., 2015). While the concept of ambivalence is well-studied in the area of substance use, its potential for aiding understanding NSSI has only recently been proposed (Gray et al., 2021).

The Ambivalence Model postulates that difficulty with emotion, reasons to engage/not engage, psychological wellbeing, self-confidence, expectations of both desired and undesired outcomes, previous reinforcement, and personality traits could be associated with varying levels of ambivalence (Breiner et al., 1999). These factors are all also associated with NSSI (Hasking et al., 2017), although these studies examined associations with self-injurious behaviours rather than desire.

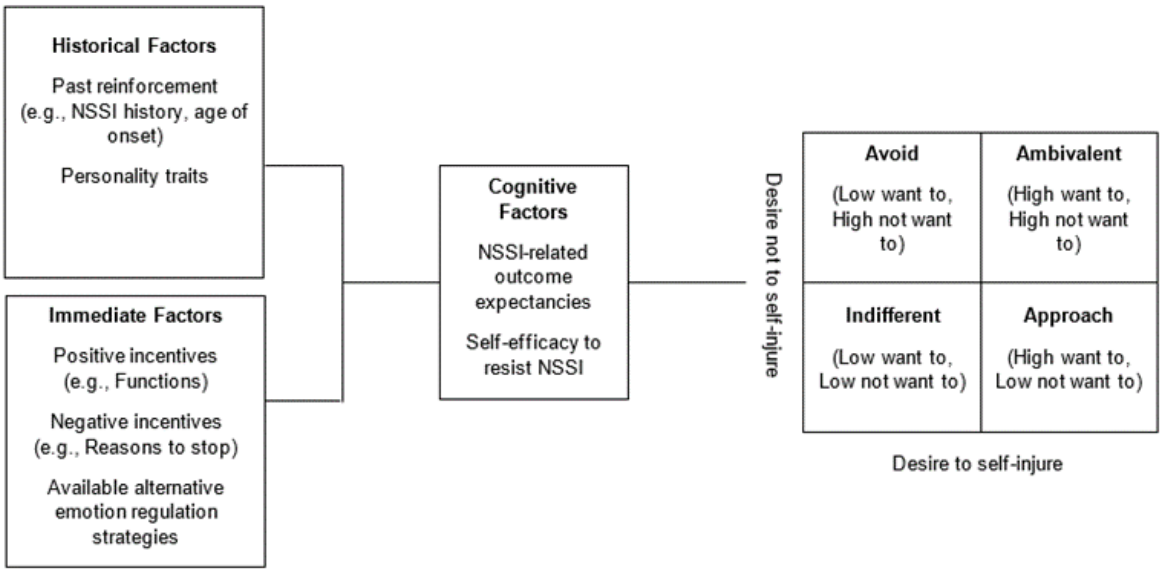
Experiences consistent with ambivalence have been reported across a range of NSSI literature (Gray et al., 2021). An individual may experience ambivalence during the engagement of self-injury, whereby they want to engage in the behaviour to relieve pain or negative affect, yet do not want to engage in the behaviour out of fear of attracting unwanted attention (Gray et al., 2021). In previous work comparing individuals who have, and have not stopped self-injury, there were many differences across a range of cognitive and emotional variables (NSSI functions, psychological distress, difficulties with emotion regulation, outcome expectancies, and self-efficacy). Individuals who had stopped engaging in self-injury used the behaviour less for intrapersonal reasons compared to individuals who had not stopped. Additionally, individuals who had stopped showed less psychological distress, less difficulties with emotion regulation, less pain expectancies through NSSI, and greater self-efficacy to resist the behaviour, compared to individuals who had not stopped (Gray et al., 2022). However, this same study found very few differences in the same variables when comparing individuals who wanted to and did not want to stop self-injuring. This may be because participants were given a binary no/yes response option when asked if they wanted to stop self-injury, potentially not capturing the concept of ambivalence.

The current study sought to build on this previous finding to *i)* determine whether profiles of ambivalence in desire to self-injure can be identified, and *ii)* whether these potential profiles differ on a range of theoretically-informed constructs. Using the Ambivalence Model (Breiner et al., 1999) as a framework, we examined ambivalence among

individuals with a history of NSSI. Specifically, we examined the extent to which individuals with a history of NSSI hold competing desires to both want to, and not want to, self-injure, and tested whether differences in these desires to self-injure and not self-injure could be used to generate profiles in accordance with the Ambivalence Model. We also explored whether the potential profiles differed across demographics, as well as the constructs included in the Ambivalence Model. We explored Historical factors: past re-enforcement (NSSI e.g., age of onset, history of engagement in NSSI, history of desire to engage in NSSI), and personality; Immediate factors: positive incentives (functions of self-injury), negative incentives (reasons to stop self-injury), available alternatives (difficulties with emotion regulation, psychological distress); and Cognitive factors: outcome expectancies, self-efficacy to resist NSSI. The variables we sought to examine were predicted to underpin the ambivalence experienced by individuals in our predicted profiles (Figure 3.1).

Figure 3.1

An Application of the Ambivalence Model to Self-Injury



Method

Participants

Responses to an online survey were collected from a combined community and university student sample. A range of recruitment methods were used including snowball sampling through the general community, and the Curtin University undergraduate

participation pool. Of the 224 participants, 35 (15.6%) identified as male, 167 (74.6%) identified as female, and 22 (9.8%) identified as another gender (transgender, non-binary, or another unspecified gender). Participants were between 17 and 39 (M = 21; SD = 4.43). One hundred and forty-six (65.2%) were university students. One hundred and three participants (46%) were born in Australia. Approximately 59% were living in Australia, 31% were living in other countries, and 10% of participants did not specify their location. All participants had engaged in NSSI at some point in their lives. The mean age for initial engagement in NSSI was 14 years (SD = 3.05). Cutting was the most common method of NSSI (n = 146; 66.1%), followed by self-battery (n = 17; 7.6%), biting (n = 10; 4.5%) and pinching (n = 10; 4.5%). Most participants reported feeling pain when self-injuring (n = 218; 97%).

Measures

Desire to self-injure and not self-injure: The extent to which participants wanted to self-injure and not self-injure was assessed with two items: "To what extent have you wanted to self-injure over your lifetime?"; "To what extent have you not wanted to self-injure over your lifetime?". Responses were made on a 10-point scale *(1: only slightly; 11: very much)*.

Tendency to Approach/Avoid NSSI: Tendencies to approach or avoid NSSI were assessed using an adapted version of Brief Approach Avoid Alcohol Questionnaire (BAAAQ, Levine et al., 2019). Participants were asked the extent to which they would have 'liked to engage in NSSI' in the past year. The original version has demonstrated sound internal consistency in the alcohol-use literature (Levine et al., 2019) and reliability was good in our sample (approach: α = .92; avoid: α = .86).

NSSI Characteristics and Functions: Self-injury history, characteristics and functions were assessed using the Inventory of Statements about Self-injury (ISAS; Klonsky & Glenn, 2009). The ISAS consists of two sections; Section I provides a definition of NSSI and asks participants to respond to items about their history with self-injury including frequency, recency, age of onset, and methods. Section II assesses 13 functions of self-injury. These functions are divided into two higher order subscales: interpersonal and intrapersonal functions. Internal consistency in the current sample was acceptable across higher order subscales (intrapersonal: α = .85; interpersonal: α = .89) and individual subscales (interpersonal influence: α = .66 – anti-suicide: α = .89).

Personality: Personality was assessed using the Mini Interpersonal Personality Item Pool (IPIP, Donnellan et al., 2006), which assess five personality traits; extraversion, agreeableness, conscientiousness, neuroticism, intellect/imagination. Reliability ranged between α = .65 (neuroticism) and α = .84 (extraversion) in our sample.

Reasons to Stop Self-injury: Reasons to stop self-injury were measured by the Reasons to Stop Self-injury Questionnaire (Turner et al., 2014), which comprises 9 subscales: Desire for Change/Resolution of Distress; Situational and Environmental Deterrents; Negative Emotional Consequences; Fear of Discovery and Stigma; Negative Impact on Relationships; Addiction to NSSI; Others' Expectations; Negative Physical Consequences; Body Concerns. Reliability ranged between α = .75 (Situational and Environmental Deterrents) and α = .87 (Desire for Change/Resolution of Distress) in our sample.

Difficulties in Emotion Regulation: Difficulties in emotion regulation were assessed using the 18-item Difficulties in Emotion Regulation Scale (Victor & Klonsky, 2016). Difficulties in emotion regulation may be evaluated as an overall construct or six individual subscales: limited awareness of emotion; difficulties clarifying emotional experiences; difficulties with goal-oriented behaviours; difficulties managing impulsive behaviours; non-acceptance of emotions; difficulties accessing regulation strategies. Reliability in the current sample was excellent for the overall measure (α = .89), and good-excellent for each of the subscales (strategies: α = .83 – goals: α = .93).

Psychological Distress: Psychological distress were assessed using the 10-item version of the Kessler Psychological Distress Scale (Kessler et al., 2002), which assesses frequency of psychological distress symptomology over the previous 4 weeks. Internal consistency was excellent in our sample (α = .89).

NSSI-related Outcome Expectancies: Self-injury related outcome expectancies were assessed using the Non-Suicidal Self-Injury Expectancies Questionnaire (Hasking & Boyes, 2017). The measure comprises five subscales (affect regulation, negative social experiences, communication, pain, and negative self-beliefs) assessing participants' perceived likelihood of a given outcome when engaging in self-injury. In the current sample, internal consistencies were adequate (pain: α = .72 – negative social outcomes: α = .82).

Self-Efficacy to Resist NSSI: Assessment of participants' perceived ability to resist engaging in self-injury was completed using the Self-Efficacy to Resist Non-Suicidal Self-Injury scale (SERN; Dawkins et al., 2022). The SERN comprises three subscales assessing self-efficacy to resist NSSI across different contexts; where there is greater risk of engaging in the behaviour, due to difficult internal states (risk contexts), where there are protective factors possibly making it easier to resist the behaviour (protective contexts), and contexts where there are reminders of self-injury (reminder contexts; Dawkins et al., 2022). Internal consistency for all subscales was excellent in our sample (Risk: α = .93; Protect: α = .90; Reminders: α = .95).

Procedure

After gaining ethical approval from [redacted for review] the study was advertised on the university online participant pool, and on social media platforms. Participants were directed to a survey hosted by Qualtrics. The questionnaire took approximately 45-60 minutes to complete. Participants from the Curtin university participant pool received course credit for participation, while participants from outside the university were placed into a draw to receive one of twenty $50 e-gift cards. Participants received information and contact information for NSSI support services on completion of the survey.

Data Analysis Strategy

Analyses were conducted in five stages. First, a missing values analysis was conducted. Participants who did not answer the questions "To what extent have you wanted to self-injure in your lifetime" and "To what extent have you not wanted to self-injure in your lifetime" were excluded from the analysis. Missing values analysis revealed that data was missing completely at random for the K10 [$\chi^2(27) = 26.07$ $p = .514$], the Mini IPIP [$\chi^2(179) = 198.15$, $p = .16$], and the Reasons to Stop Self-injury Questionnaire [$\chi^2(813) = 832.87$, $p = .31$]. Although the data across other measures were not missing completely at random, there was minimal missing data (<2%), therefore expectation maximisation was used to impute all remaining missing data. Second, individual differences in the desire to stop and not stop self-injuring were explored. Third, a Latent Profile Analysis (LPA) was conducted. LPA is a person-centred modelling technique designed to identify groups (i.e., profiles) of people that share a similar pattern of responses across a set of variables. The variables of interest included the extent to which one has wanted to and not wanted to self-injure over their lifetime. Finally, to further validate the profiles, profile-related differences on the approach and avoidance subscales of the adapted BAAAQ, as well as variables in the Ambivalence Model (past re-enforcement, personality, positive incentives, negative incentives, available alternatives, outcome expectancies, self-efficacy to resist NSSI) were analysed. Chi square analyses were conducted for categorical variables and MANOVAs with appropriate univariate follow-up tests were conducted on conceptually grouped scale variables. Due to the exploratory nature of the study, no covariates were included in analyses. Statistical significance was set at $\alpha \leq .05$.

Results

All participants in the sample reported a lifetime history of engagement in NSSI. Except for one participant, all participants reported that they had felt the desire to self-injure in their

lives; 83% of participants reported wanting to engage in NSSI the last year. Seventy-seven percent of participants had engaged in NSSI in the last year. Of those, 51% had done so on more than 5 days in the last year. Seventy-five percent of participants reported wanting to engage in NSSI in the last month. Forty-six percent of participants had engaged in NSSI in the last month. Of those, 46% had done so on more than 5 days in the last year. Eighty-four percent reported wanting to stop self-injury at some point in their lives, and 16% of individuals reported no desire to stop self-injuring.

Profiling ambivalence among individuals with a history of self-injury

A latent profile analysis was conducted using the TidyLPA package with *R* Studio software (Rosenberg et al., 2019). The chosen model had equal variances across profiles, and covariances fixed to zero. Solutions for 1 to 12 profiles were tested. The optimal profile solution was evaluated against a set of statistical criteria. This included five common fit indices: the Akaike Information Criterion (AIC), Bayesian Information Criterion (BIC), Classification Likelihood Criterion (CLC), and Kullback Information Criterion (KIC), and Appropriate Weight of Evidence Criterion (AWE), and the Bootstrap Likelihood Ratio Test (BLRT). For each of these fit indexes, values closer to 0 indicate a better fitting model. An Entropy index (i.e., the estimation of classification accuracy) was also calculated for each model. Values (ranging 0-1) closer to 1 indicate higher levels of statistical certainty pertaining to the extracted profiles, whereby values of .80 or more are considered acceptable (Tein et al., 2013). Profile size was also considered when determining the optimal profile solution; profiles containing less than 5% of the total sample are typically considered insignificant (Nasserinejad et al., 2017) and excluded when considering the optimal solution. Finally, the models were evaluated with reference to how theoretically relevant and distinct the extracted profiles were (Foti et al., 2012).

Models with more than seven profiles extracted at least one profile containing less than 5% of the total sample and were therefore excluded (Nasserinejad et al., 2017). While most of the fit indices demonstrated lowest values for a six-profile solution, the BIC value was lowest for a four-profile solution The BIC is the most utilised indicator of a suitable profile. As such, this index was used as our focus for fit (Spurk et al., 2020). Additionally, the four-profile solution contained close to twice the sample size in the smallest profile compared to a six-profile solution. Entropy was within the acceptable range (Table 3.1) for a six-profile solution; however, a four-profile solution was approaching acceptable parameters (0.78; Tein et al., 2013). The four-profile solution was theoretically more meaningful and parsimonious,

which was evaluated when distinguishing appropriate profiles (Foti et al., 2012). A four-profile solution also corresponds to the already existing literature on ambivalence (Breiner et al., 1999) and was deemed the most appropriate.

Table 3.1

Fit and Entropy Index Values for One to Seven Profile Solutions

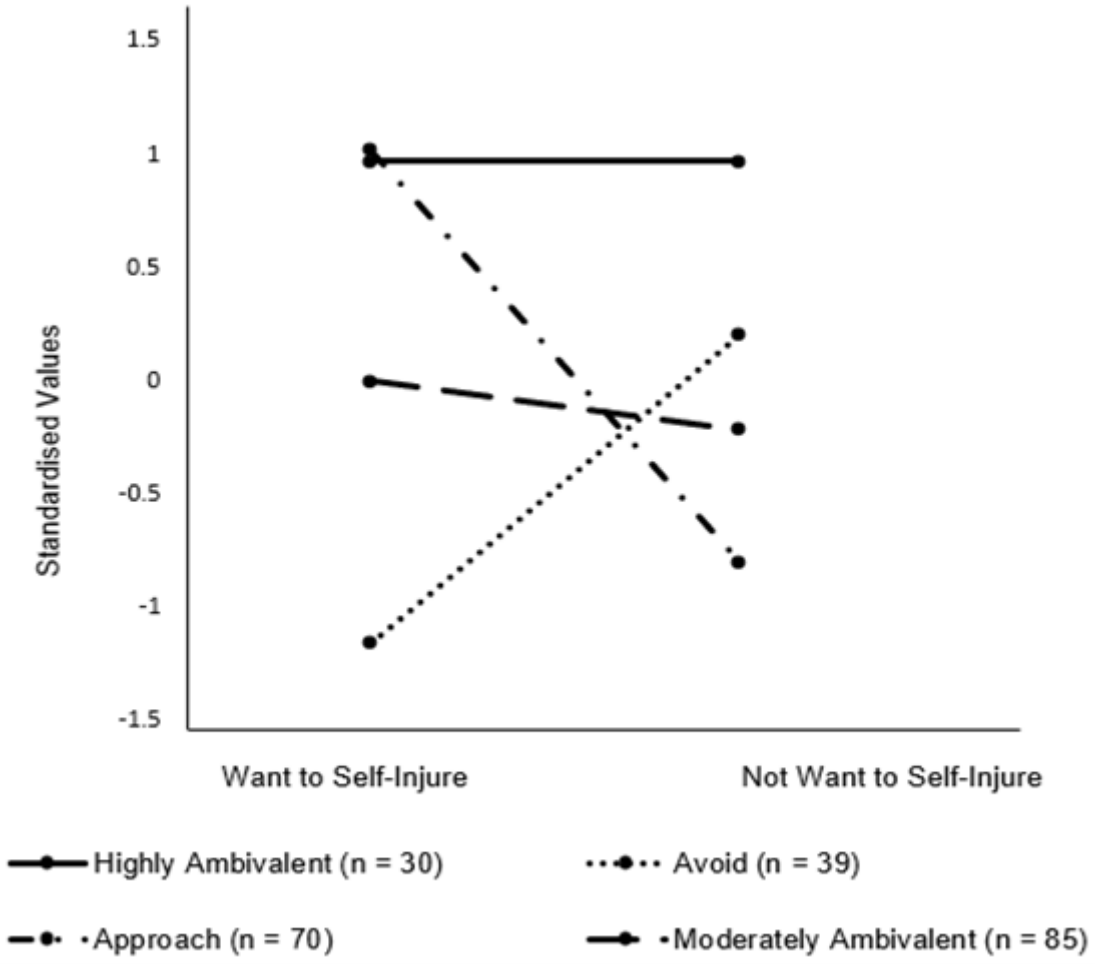
	Indices						
Number of profiles	**AIC**	**BIC**	**CLC**	**KIC**	**AWE**	**Entropy**	***N* min**
One	1155	1169	1149	1162	1200	1	1.00
Two	1117	1141	1105	1127	1199	.75	.26
Three	1120	1154	1101	1133	1237	.56	.22
Four	1081	1125	1056	1097	1233	.78	.13
Five	1086	1140	1056	1105	1273	.83	.04
Six	1062	1127	1026	1084	1285	.84	.07
Seven	978	1053	936	1003	1237	.83	.05

Note. AIC – Akaike Information Criterion; BIC – Bayesian Information Criterion; CLC – Classification Likelihood Criterion; KIC – Kullback Information Criterion; AWE – Appropriate Weight of Evidence Criterion; N min – Percentage in smallest group

The four-profile extraction demonstrated distinct profiles differing on level of desire to avoid and approach self-injury (see Figure 3.2). Profile 1 (highly ambivalent; $n = 30$; 13.4%) reported high levels of wanting to self-injure, and high levels of not wanting to self-injure throughout their lifetime. Profile 2 (avoid; $n = 39$; 17.4%) reported low levels of wanting to self-injure, and high levels of not wanting to self-injure throughout their lifetime. Profile 3 (approach; $n = 70$; 31.3%) reported high levels of wanting to self-injure, and low levels of not wanting to self-injure throughout their lifetime. Profile 4 (moderately ambivalent; $n = 85$; 37.9%) reported midway levels of wanting to self-injure, and midway levels of not wanting to self-injure throughout their lifetime.

Figure 3.2

Ambivalence profiles



Validation of profiles

Individuals in the approach profile scored higher on thoughts and desire toward NSSI than individuals who experienced any ambivalence (high and moderate ambivalence profiles), and higher than individuals in the avoid profile (Table 3.2). No differences were found between higher and moderate ambivalence profiles. Individuals who reported a stronger desire to not engage in NSSI (avoid profile) scored lowest on thoughts and desire toward NSSI compared to all other profiles. Group differences were also found in levels of thoughts and desire away from NSSI; individuals who experienced less desire to engage in NSSI, and a stronger desire to not engage in NSSI (avoid profile) scored lower on thoughts and desire away from NSSI than the other profiles (approach, high ambivalence, moderate ambivalence; Table 3.2).

Table 3.2

Descriptive statistics and group differences across each profile

	Avoid [a]	Mod Amb [b]	High Amb [c]	Approach [d]					Group Differences
	M(CI)	*M(CI)*	*M(CI)*	*M(CI)*	λ	F	*P*	η_p^2	
Adapted BAAAQ (Avoid)	9.51 (7.29-11.74)	14.8 (13.29-16.31)	15.97 (13.43-18.51)	16.29 (14.62-17.95)		8.47	**<.001**	.10	b = c = d > a
Adapted BAAAQ (Approach)	8.82 (6.69-10.95)	14.52 (13.08-15.96)	17.23 (14.81-19.66)	21.49 (19.90-23.08)		31.81	**<.001**	.30	a < b = c < d
Mean age	22.32 (21.06-23.57)	20.95 (20.01-21.90)	21.73 (19.63-23.83)	19.94 (18.97-20.92)		2.79	**.04**	.04	b = c; d < a
Age of NSSI onset	14.67 (13.50-15.83)	14.81 (14.20-15.42)	14.17 (13.01-15.32)	13.16 (12.51-13.80)		4.37	**.005**	.06	a = c; a = b > d
Mini IPIP					.86	2.24	**.01**	.05	
Extraversion	12.28 (11.05-13.52)	10.99 (10.15-11.82)	10.03 (8.63-11.44)	9.03 (8.11-9.95)		6.59	**<.001**	.08	a = b; a > c > d
Agreeableness	16.10 (15.18-17.02)	16.54 (15.92-17.16)	16.77 (15.72-17.81)	15.91 (15.23-16.60)		.92	.43	.01	a = b = c = d
Conscientious	12.82 (11.76-13.88)	12.40 (11.68-13.12)	12.57 (11.36-13.78)	11.66 (10.87-12.45)		1.25	.29	.02	a = b = c = d
Neurotic	13.80 (12.80-14.79)	14.54 (13.87-15.21)	15.47 (14.33-16.60)	15.94 (15.20-16.68)		4.82	**.003**	.06	a = b; a > c > d
Intellect/Imagine	15.13 (14.01-16.25)	15.25 (14.49-16.01)	15.50 (14.22-16.78)	15.21 (14.38-16.05)		.07	.98	.001	a = b = c = d
Intrapersonal Functions					.75	4.37	**<.001**	.09	
Affect regulation	6.82 (6.37-7.27)	7.64 (7.33-7.94)	7.73 (7.22-8.25)	8.31 (7.98-8.65)		9.35	**<.001**	.11	a < b = c < d
Self-punishment	6.74	7.04	7.40	7.57		1.99	.12	.03	a = b = c < d

	(6.15-7.34)	(6.63-7.44)	(6.72-8.08)	(7.13-8.02)				
Anti-dissociation	5.10 (4.47-5.69)	5.95 (5.54-6.37)	6.37 (5.67-7.06)	6.86 (6.40-7.31)		7.56	**<.001**	.09	a < b < c = d
Anti-suicide	4.00 (3.36-4.64)	5.02 (4.59-5.46)	6.07 (5.34-6.80)	6.44 (5.97-6.92)		14.40	**<.001**	.16	a < b < c < d
Marking distress	5.31 (4.68-5.94)	5.47 (5.04-5.90)	6.40 (5.68-7.12)	6.03 (5.56-6.50)		2.71	**.046**	.04	a = b; a < c = d
Interpersonal Functions					.84	1.57	**.04**	.06	
Interpersonal boundaries	4.18 (3.66-4.70)	4.11 (3.75-4.46)	4.20 (3.61-4.80)	3.89 (3.50-4.28)		.42	.74	.01	a = b = c = d
Self-care	4.56 (4.00-5.120	4.51 (4.13-4.89)	5.47 (4.83-6.11)	5.29 (4.87-5.70)		3.98	**.01**	.05	a = b < c = d
Sensation seeking	4.00 (3.53-4.47)	3.96 (3.65-4.28)	4.23 (3.70-4.77)	4.30 (3.95-4.65)		.79	.50	.01	a = b = c = d
Peer bonding	3.31 (3.05-3.57)	3.41 (3.24-3.59)	3.10 (2.81-3.40)	3.17 (2.98-3.36)		1.64	.18	.02	a = b = c = d
Interpersonal influence	3.95 (3.50-4.40)	4.07 (3.77-4.37)	4.43 (3.92-4.94)	3.99 (3.65-4.32)		.83	.48	.01	a = b = c = d
Toughness	4.51 (3.67-5.06)	4.45 (4.08-4.82)	4.57 (3.94-5.20)	4.50 (4.09-4.91)		.04	.99	.001	a = b = c = d
Revenge	3.33 (3.01-3.65)	3.56 (3.35-3.78)	3.60 (3.23-3.97)	3.31 (3.08-3.55)		1.16	.33	.02	a = b = c = d
Autonomy	3.90 (3.42-4.48)	3.91 (3.58-4.23)	3.87 (3.32-4.42)	4.16 (3.80-4.52)		.48	.70	.01	a = b = c = d
Reasons to Stop					.72	2.77	**<.001**	.11	
Sit & Env Deterrents	8.54 (7.31-9.77)	8.49 (7.66-9.33)	7.70 (6.30-9.10)	8.34 (7.43-9.26)		.35	.79	.01	a = b = c = d
Neg physical	10.72	9.89	10.20	10.79		.71	.55	.01	a = b = c = d

	(9.40-12.04)	(9.00-10.79)	(8.70-11.70)	(9.80-11.77)				
Fear stigma	12.97 (11.65-14.30)	12.80 (11.91-13.70)	12.83 (11.33-14.34)	13.13 (12.14-14.12)		.09	.97	.001	a = b = c = d
Addiction	12.13 (10.60-13.66)	13.54 (12.50-14.58)	14.43 (12.69-16.18)	16.02 (14.94-17.23)		6.41	**<.001**	.08	b=c; a = b < d
Others Exp.	10.33 (9.02-11.64)	9.91 (9.02-10.79)	8.97 (7.47-10.46)	10.56 (9.58-11.54)		1.12	.34	.02	a = b = c = d
Desire for change/resolve distress	21.36 (19.45-23.27)	19.66 (18.37-20.95)	19.77 (17.59-21.95)	15.61 (14.19-17.04)		9.59	**<.001**	.12	a = b = c < d
Neg Emotion	13.05 (11.73-14.37)	12.78 (11.88-13.67)	11.87 (10.36-13.37)	10.90 (9.92-11.88)		3.38	**.02**	.04	a = b = c = d
Neg impact relationships	17.67 (16.17-19.16)	16.81 (15.80-17.83)	16.23 (14.53-17.94)	15.86 (14.74-16.97)		1.35	.26	.02	a = c; a = b > d
Body concerns	13.85 (12.46-15.23)	12.40 (11.46-13.34)	12.13 (10.55-13.72)	10.79 (9.75-11.82)		4.27	**.01**	.06	b=c; a = b < d
DERS/K10					.66	4.29	**<.001**	.13	
DERS Aware	6.95 (6.10-7.80)	7.24 (6.66-7.83)	7.11 (6.09-8.14)	9.89 (9.21-10.56)		15.19	**<.001**	.18	a = b = c < d
DERS Clarity	7.51 (6.47-8.56)	9.08 (8.37-9.80)	7.89 (9.74-12.04)	11.03 (10.20-11.86)		11.17	**<.001**	.14	a < b = c < d
DERS Goals	11.13 (10.17-12.08)	11.24 (10.59-11.90)	10.89 (9.74-12.04)	12.29 (11.53-13.05)		2.18	.09	.03	a = b = c = d
DERS Impulse	6.10 (5.03-7.17)	7.10 (6.36-7.83)	6.33 (5.05-7.62)	8.79 (7.94-9.64)		6.46	**<.001**	.09	a = b = c < d
DERS Non-Acceptance	8.62 (7.59-9.64)	9.15 (8.44-9.85)	8.89 (7.65-10.12)	11.13 (10.32-11.94)		6.75	**<.001**	.09	a = b = c < d
DERS Strategies	7.82 (6.94-8.70)	8.95 (8.35-9.56)	9.37 (8.31-10.43)	10.87 (10.17-11.57)		10.56	**<.001**	.13	a < b = c < d

K10	27.51 (25.21-29.82)	31.02 (29.44-32.62)	30.63 (27.86-33.40)	35.38 (33.57-37.20)		10.10	**<.001**	.13	a < b = c < d
NEQ/SERN					6.23	4.56	**<.001**	.15	
NEQ Affect	10.74 (9.75-11.74)	12.47 (11.79-13.15)	13.60 (12.46-14.74)	14.71 (13.97-15.46)		14.61	**<.001**	.17	a < c = b = d
NEQ Social	11.36 (10.13-12.59)	13.14 (12.31-13.98)	12.37 (10.96-13.77)	13.49 (12.57-14.41)		2.83	**.04**	.04	a < b = c = d
NEQ Comm	8.69 (7.75-9.64)	8.37 (7.73-9.01)	8.17 (7.01-9.24)	7.64 (6.94-8.35)		1.24	.30	.02	a = b = c = d
NEQ Pain	15.74 (14.84-16.65)	14.87 (14.26-15.49)	15.50 (14.47-16.53)	14.66 (13.98-15.33)		1.55	.20	.02	a = b = c = d
NEQ Neg Self	13.56 (12.51-4.62)	13.88 (13.17-14.60)	14.83 (13.63-16.04)	14.27 (13.49-15.06)		1.00	.40	.01	a = b = c = d
SERN Risk	18.56 (16.61-20.52)	17.44 (16.11-18.76)	19.93 (17.70-22.17)	13.47 (12.01-14.93)		10.60	**<.001**	.13	a = b = c > d
SERN Protect	25.54 (24.79-28.29)	26.33 (25.14-27.51)	27.63 (25.64-29.63)	22.60 (21.29-23.91)		8.92	**<.001**	.11	a = b = c > d
SERN Reminders	24.54 (22.44-26.64)	21.81 (20.39-23.24)	22.60 (20.20-25.00)	16.19 (14.62-17.76)		16.64	**<.001**	.19	a = b = c > d

Note: Significant *p* values are bolded. *M* = Estimated marginal means

Profile-related differences on historical factors

Exploring profile-related differences in NSSI characteristics allowed further illustration of the utility of the ambivalence profiles. We compared more recent (past month) desire to self-injure across the four profiles. Those who did not want to self-injure in the last month had the highest proportion within the avoid profile (n = 56.5%), followed by the moderately ambivalent profile, followed by the highly ambivalent profile, with the lowest proportion in the approach profile (n = 3%; Table 3.3). Additionally, the profiles were validated using a measure that asks for thoughts and desires around NSSI in the year prior. Profiles extracted on lifetime ambivalence correspond meaningfully with responses on past year ambivalence and reported desire over the month prior.

We also tested differences in NSSI characteristics across profiles. The mean age of the individuals in the avoid profile were significantly older than the individuals in the approach profile. The age of onset of NSSI was significantly younger in the approach profile, compared to the moderately ambivalent, and avoid profiles (Table 3.2). Some differences were found in personality traits between profiles. The avoid profile showed significantly higher levels of extraversion than the other three profiles. The approach profile reported higher levels of neuroticism compared to the avoid and moderately ambivalent profiles, though not significantly different to the highly ambivalent profile.

Profile-related differences on immediate factors

Several profile-related differences in NSSI function were identified (Table 3.2). Individuals in the approach and ambivalent profiles reported more intrapersonal reasons (e.g., affect regulation) than individuals from the avoid profile. No differences were found in interpersonal functions, except engaging in NSSI for self-care (Table 3.2).

The approach profile reported less reasons to stop engaging in NSSI than the avoid, and moderately ambivalent profiles. Specifically, they reported higher perceived addictive qualities of NSSI, less desire for change/resolution of distress, less perceived negative emotional consequences, and less body concerns than the avoid and moderately ambivalent profile. No significant differences were found between the approach and the highly ambivalent profile, except for their desire for change; compared to other profiles, individuals from the approach profile reported less desire for change.

Table 3.3

NSSI characteristics within profiles

	Avoid[a]		**Moderate Ambivalence**[b]		**High Ambivalence**[c]		**Approach**[d]	
	% Within Profile	SR	% Within Profile	SR	% Within Profile	SR	% Within Profile	SR
Have you wanted to self-injure in your lifetime?								
Yes	97.4%	-.1	100%	.0	100%	.0	100%	.0
No	2.6%	2.0	0%	.0	0%	.0	0%	.0
Have you self-injured in the last year?								
Yes	56.4%	-1.5	79.5%	.2	69%	-.5	89.7%	1.2
No	43.6%	2.7	20.5%	-.4	31%	.9	10.3%	-2.2
Have you wanted to self-injure in the last year?								
Yes	60.5%	-1.5	82.4%	.0	83.3%	.0	94.3%	1.1
No	39.5%	3.2	17.6%	.0	16.7%	-.1	10.3%	-2.4
Have you self-injured in the last month?								
Yes	22.2%	-2.1	42.0%	-.6	37.9%	-.7	67.1%	2.6
No	77.8%	2.0	58.0%	.5	62.1%	.6	32.9%	-2.4
Have you wanted to self-injure in the last month?								
Yes	43.5%	-1.7	60%	-1.4	84%	.6	97%	2.1
No	56.5%	2.9	40%	2.4	16%	-.9	3%	-3.6
Do you experience pain when you self-injure?								
Yes	94.9%	-.2	97.6%	.0	100%	.1	97.1%	.0
No	5.1%	.9	2.4%	-.2	0%	-.9	2.4%	.1

Note: Percentages are within groups; SR = Standardised residual; Standardised residuals lower or greater than 2 indicate significant differences

Individuals in the approach profile reported more difficulties with emotion regulation than all other profiles. In comparison to the other three profiles, the approach profile reported more difficulty with awareness and clarity of their emotions, more difficulty with impulse control, more difficulty accepting their emotions, and more difficulty implementing strategies to regulate emotion. Individuals in the avoid profile and ambivalent profile responded similarly across all areas of emotion regulation, except for difficulties with emotion regulation strategies; here the ambivalent profiles reported similar difficulties with emotion regulation strategies – more difficulties than the avoid profile, and less difficulties than the approach profile. Additionally, individuals who tend to approach NSSI reported higher levels of psychological distress than those who tend to avoid the behaviour, or experience ambivalence (Table 3.2).

Profile-related differences on cognitive factors

Profiles differed on certain outcome expectancies related to engaging in NSSI (Table 3.2). Specifically, the approach and ambivalence profiles in comparison to the avoid profile reported expecting more affect regulation to occur through NSSI. Individuals in the approach profile reported expecting more affect regulation than individuals who were moderately ambivalent, though showed similar expectancies as the highly ambivalent profile. Individuals in the avoid, moderate, and highly ambivalent profiles reported significantly higher self-efficacy to resist NSSI compared to individuals in the approach profile.

Discussion

The purpose of this study was to examine if individuals with a history of NSSI differ in the level to which they both want to and do not want to self-injure, and whether these differences in desire could be used to generate profiles consistent with the Ambivalence Model. Additionally, our research explored whether these profiles differed across several theoretically-informed constructs, including cognition, emotion, personality, and incentives to engage (and not engage) in NSSI.

Understanding ambivalence in the context of NSSI may be important to recovery (Gray et al., 2021; Kelada et al., 2017). Previous studies identified that individuals who had stopped self-injuring used self-injury less for intrapersonal functions, and had less psychological distress, less difficulties with emotion regulation, less pain expectancies, and greater self-efficacy to resist NSSI compared to individuals who had not stopped (Gray et al., 2022). However, these factors did not differentiate individuals who wanted/did not want to stop self-injuring. We postulated that this may be because desire to engage in, or stop, a behaviour is more complex than a dichotomous outcome of no or yes. Our current findings suggest that differences do exist when simultaneously considering competing desires.

Consistent with the substance use literature (Schlauch et al., 2015), the four-profile solution found in the profile analysis comprised of avoid, moderately ambivalent, highly ambivalent, and approach profiles. Profile-related differences on NSSI characteristics and the amended approach/avoidance questionnaire provided further support for these profiles. Members of the approach profile responded with the highest levels of approach tendencies, the ambivalent profiles responded with moderate levels, and the avoid profile responded with the lowest levels. One exception of our expectations was that the avoid profile scored lowest on the avoid subscale of the adapted BAAAQ (Levine et al., 2019) This could reflect the nature of some items. The avoidance subscale measures behavioural avoidance. For example, the item “I deliberately occupied myself so I would not self-injure” would apply to those who

want to self-injure to some degree, (i.e., ambivalent or approach profiles). As such, we might expect to see those with no desire to self-injure reporting less tendency to avoid the NSSI.

The model underpinning this research (Breiner et al., 1999) describes an "indifferent" group, who have little to no desire to engage, and little to no desire not to engage in substance use. Our analyses did not indicate an indifferent group within our sample. One of the components of the Ambivalence Model is past reinforcement. Breiner and colleagues (1999) posit that desire to engage in a behaviour can come from biochemical reinforcement (i.e., a pleasurable feeling, or relief of an unwanted feeling), and from learning processes, where repetition leads to habitual reinforcement. The four profiles extracted in our study (avoid, moderately ambivalent, highly ambivalent, and approach) were appropriate for the sample, who all had a history of NSSI. More than half of the sample in each group had self-injured in the previous year, and the group with the lowest number of individuals to have self-injured in the last month were the avoid group. Consistent with research (Taylor et al., 2018) and the Ambivalence Model (Breiner et al., 1999), reinforcement was likely to be a factor surrounding desire to self-injure. In hindsight, given the nature of the sample, we believe this could account for the lack of a distinct group who felt indifferent toward the behaviour.

There were differences between the avoid group and the approach group across several of the explored variables. This was most common among the cognitive-emotional variables, such that individuals who approached NSSI had greater difficulties with emotion regulation, less self-efficacy to resist NSSI, greater psychological distress, and greater affect regulation expectancies than the group who avoided NSSI. Additionally, there were differences between the avoid and approach profiles in affect regulatory incentives to approach (intrapersonal functions) such that the approach group reported engaging in NSSI to regulate affect, punish themselves, reduce dissociation, and avoid suicide to a greater extent than the avoid group. The differences found in this study are consistent with the literature, and cognitive-emotional theories of NSSI, affirming that the behaviour is most often utilised as an affect regulation strategy (Taylor et al., 2018).

Differences between avoid and approach were found among reasons to stop NSSI. However, this was only on items pertaining to personal feelings around their own self-injurious behaviours (e.g., negative emotional consequences, loss of control) and not external factors (e.g., situational and environmental deterrents, others' expectations). It is worth noting the variability between the profiles on desire for change/resolution of distress as a reason to stop. The approach profile was significantly lower in their desire for change than the other three profiles. Our results are consistent with the literature in that wanting change/wanting to

resolve distress is related to wanting to avoid/cease NSSI (Buser et al., 2013). In line with theories of behaviour change, it is possible that highly ambivalent individuals are on the verge of change; with similar levels of desire toward NSSI, yet significantly different levels of desire for change compared to the approach group change (Grunberg & Lewis, 2015).

Theoretically, behaviour change is underpinned by a desire to change (Grunberg & Lewis, 2015). This is where motivational interviewing techniques are considered beneficial, as the client explores the costs and benefits of a given behaviour (Grunberg & Lewis, 2015). Given the clear profiles of ambivalence, and profile-related differences in intrapersonal functions, with minimal differences in interpersonal functions, treatment targets that focus on the internal, emotional benefits of their behavioural desire may be beneficial in terms of resolving ambivalent states. This may include shame reduction, self-efficacy, and self-compassion if their desired behaviour is to continue self-injuring.

Additionally, numerous studies have assessed the reasons for self-injury alongside the barriers to cessation (Buser et al., 2013; Kruzan & Whitlock, 2019). In these studies, interpersonal relationships are both a reason to stop (e.g., letting others down; Kruzan & Whitlock, 2019) and a mechanism for change (leaving unhealthy relationships/environments; Buser et al., 2013). While we did not identify profile related differences in interpersonal functions (reasons to self-injure), it may be beneficial for future research to examine potential differences in interpersonal relationships (e.g., adverse family functioning, peer conflict, romantic relationship issues).

The moderately ambivalent group tended to report consistently middle range scores across variables. For most of the variables measured, very few differences were found between the moderate and highly ambivalent profiles; both ambivalence profiles tended to be similar across variables, with significant differences alternating between the avoid group and the approach group. In some cases, ambivalence appeared similar to the approach group (e.g., NSSI expectancies), other times ambivalence appeared similar to the avoid group (e.g., self-efficacy to resist NSSI, difficulties with emotion regulation, psychological distress). Individuals experiencing ambivalence appear to fluctuate in their responses across cognitive emotional variables. Individuals who have high levels of wanting to engage in NSSI may state that they have no desire to self-injure (highly ambivalent), while internal desires collide with conscious wishes to not self-injure (Kelada et al., 2017). It is important for clinicians and other health professionals to acknowledge this while conducting emotional wellbeing measures. Linking to our findings and using the widely used K-10 scale (Kessler et al., 2002) as an example regarding psychological distress, individuals who report having high desire to

avoid self-injury may score similarly to individuals who strongly want to avoid *and* approach self-injury. Without understanding and acknowledging ambivalence in treatment, client characteristics may be misread, hindering treatment. Yes or no framed questions to whether a client wants to self-injure may only be capturing a small component of the more complex response. Acknowledging experiences of ambivalence in treatment may identify treatment targets for the clinician, and a more person-centred approach to therapeutic practices.

Theoretical and Clinical Implications

Our findings are consistent with current theories of emotion regulation, and its role in NSSI (Hasking et al., 2017). Our latent profile analyses show empirical evidence supporting the Ambivalence Model. NSSI models could benefit by considering that individuals may have conflicting desires toward their self-injury, and that these desires are likely important in understanding the behaviour. Ambivalence not only impacts individuals who self-injure but may cause frustration for health professionals who see recurring self-injury during an extended recovery process (Saunders et al., 2012). Additionally, families may experience distress, anger, feelings of failure, confusion, and fear that their loved ones may re-engage in the behaviour (Kelada et al., 2017). For those desiring to cease NSSI, the acknowledgement that re-engaging is not a failure, but rather a part of the broader, non-linear recovery process has been identified as a valuable therapeutic approach (Gray et al., 2021). Levels of desire to engage/not to engage are likely to fluctuate when there are perceived advantages and disadvantages of any given behaviour (Grunberg & Lewis, 2015). Health professionals would benefit from considering desire to change as a multidimensional construct. An individual can want to, and not want to self-injure at the same time, and they may not be consciously aware of this conflict. Our findings also suggest that assessment of emotion, cognition, motivations, level of risk, and desire to change are not sufficiently capturing the individuals experience when accounting only for unidimensional responses. Compared to individuals who want to avoid self-injury, psychological distress appears higher in those who want to approach the behaviour. Additionally, psychological distress was higher in those who were ambivalent about self-injury, compared to those who wished to avoid the behaviour. Given this, if an individual states that they do not want to self-injure anymore, it is not necessarily an indicator of improved psychological wellbeing, particularly if they also hold a desire to continue the behaviour.

Limitations and Future Research Directions

The participants in our study were a community sample, largely university students. It may be of benefit to examine the nature of ambivalence in a clinical sample where rates of

self-injury are higher, and/or more recent. Due to a limited number of participants having had engaged in NSSI in the previous year, and previous month, our study was assessing ambivalence toward NSSI with a cross sectional dataset using lifetime history of desire, while the measure that was used to validate the profiles asked for levels of avoid/approach over the past year. The disparity between lifetime and past year approach/avoid may have been problematic. In responding to lifetime, general desire, participants could be reporting a moment of fluctuation in ambivalence (i.e., when motivation toward NSSI was high, or when motivation was low) rather than simultaneous, competing desires. Others may be creating an "average" experience of ambivalence over their lifetime. The conceptualisation of lifetime, general desire to engage/not engage in NSSI is highly interpretable, and there is possibility that participants were reporting different experiences. However, our profiles were further validated through measuring NSSI engagement in the past year and month. The highest within group percentage of NSSI engagement for past year and month were approach, moderately ambivalent, highly ambivalent, and avoid respectively, matching the levels of desire in our profiles. While this strengthens the validity of our profiles, it does not address the experiencing competing desires simultaneously. Future research could address this by assessing participants desire to engage/not engage in NSSI at a more specific point in time (e.g., last month or week) with a matched validation measure of the same point in time (e.g., last month or week). Alternatively, ecological momentary assessment studies could capture these competing desires in the moment and would provide a more rigorous assessment of ambivalence, as well as fluctuations in ambivalence and how these relate to self-injurious behaviour.

Conclusion

We established that ambivalence profiles can be identified in the context of NSSI, and that these profiles differ meaningfully on a range of NSSI-related, cognitive, emotional, and personality variables. Importantly, individuals who self-injure may hold competing and seemingly contradictory desires (Kelada et al., 2017). Understanding this has important theoretical and clinical implications. In particular, understanding that individuals with approach, or ambivalence tendencies report more psychological distress. Acknowledging the possibility of ambivalence may also reduce barriers to help seeking, improve clinician-client rapport, identify treatment targets, reduce confusion and/or shame, educate loved ones who may not understand the behaviour, and increase client wellbeing.

Chapter 4

Why Am I Doing This? Ambivalence in the Context of Non-Suicidal Self-Injury

In Study 2 we determined that profiles of ambivalence could be identified among individuals with a history of NSSI. We also determined that a range of factors differentiated these profiles. While this is important information, quantitative studies, such as Study 2, do not provide us with the unique experience described by the individual. In Study 3 I employed a qualitative design, aiming to explore the details surrounding the individual experience of ambivalence. I sought to explore the impact of ambivalence on the individual, their self-injurious behaviours, and their environment.

Gray, N., Uren, H., Staniland, L., & Boyes, M. (revise and resubmit). Why am I doing this? Ambivalence in the context of non-suicidal self-injury. ***Deviant Behaviours***

Attributions

Author	Contribution	Acknowledgement
Nicole Gray	Development of research question and methodology, data collection, management, and analysis, interpretation of findings, and manuscript preparation	
Hannah Uren Lexy Staniland Mark Boyes	Assisted with development of research question, interpretation of findings, and manuscript preparation	

Abstract

Background: Ambivalence toward engaging in non-suicidal self-injury (NSSI) is well reported, yet the experience of ambivalence in the context of self-injury remains understudied. Understanding the nuances behind the experiences of ambivalence may allow the identification of treatment targets, and promote compassion for individuals experiencing confusing competing thoughts, feelings and desires. Our aim was to explore individuals' personal experiences of ambivalence toward NSSI. In doing so, we aimed to better understand the impact ambivalence has on the individual's wellbeing and self-injurious behaviours. **Methods:** Thirty-one face-to-face semi-structured interviews with undergraduate university students (aged 17 to 31) with a history of NSSI were analysed using a reflexive thematic analysis approach, with a relativist perspective. **Results:** Five themes were developed to address the aim of our research. The themes capture the personal and social functions of ambivalence, as well as the perpetual nature of ambivalence even long after ceasing the behaviour. Ambivalence toward self-injury was common and confusing experience for our participants. Levels of ambivalence toward self-injury fluctuated during the act of self-injury, and over time more generally. Ambivalence in other areas (e.g., self-perception, social support) was associated with ambivalence toward self-injurious behaviours, and engagement in the act itself. **Conclusion:** Given the apparent ubiquity of ambivalence in the experience of self-injury, acknowledging ambivalence as a fundamental component of the recovery process could be beneficial for the individual who self-injures, and those supporting them.

Keywords: Ambivalence; Non-suicidal self-injury; Decision making; Desire; Lived experience

Introduction

Non-suicidal self-injury (NSSI) is defined as the deliberate damage to body tissue with the absence of suicidal intent (International Society for the Study of Self-injury, 2022). NSSI includes, but is not limited to, cutting, burning, and self-battery (Nock & Favazza, 2009). Individuals who self-injure do so for a range of reasons; including avoiding suicidal thoughts and behaviours, self-punishment, to communicate, to experience physical sensation, and most commonly, to regulate unwanted affect (Taylor et al., 2018). In community populations, rates of NSSI are estimated at approximately 17.2% of adolescents (10-17), 13.4% of young adults (18-24), and 5.5% of adults aged 25 and over (Swannell et al., 2014). Approximately 20% of university students report engaging in the NSSI at some point in their lives (Swannell et al., 2014) suggesting that university populations have higher rates of self-injury than the wider community. These rates are concerning as there are well documented associations between NSSI, test anxiety, overall stress, declines in academic performance, psychological disorders, and increased risk of future suicidal thoughts and behaviours (Kiekens et al., 2016; 2018).

The impact of self-injurious behaviours may extend beyond the association with psychological disorders, and suicidal thoughts and behaviours. NSSI has been demonstrated to increase stress for family, friends, and health professionals supporting them (Gray et al., 2021; Kelada et al. 2017). Early intervention may prevent these outcomes; however, given that approximately 20% of individuals who self-injure report no desire to stop (Gray et al., 2022), understanding why individuals want to self-injure is an important first step toward recovery. As NSSI is a highly stigmatised behaviour (Staniland et al., 2020), individuals who engage in NSSI may fear judgement and ongoing shame from their self-injury, and be reluctant to seek help, perpetuating further engagement (Lewis & Mehrabkhani, 2016; Staniland et al., 2020).

Ambivalence refers to the mental state of having conflicting thoughts, emotions, or desires, which can be challenging to identify (Conner & Sparks, 2002). It is common for individuals to experience ambivalence when making decisions or considering behavioural change (Miller & Rose, 2015). Individuals with a history of NSSI report experiencing ambivalence toward their recovery (Grunberg & Lewis, 2015; Kelada et al., 2017; Shaw, 2006). The perception of self-injury as an effective emotion regulation strategy may create a sense of dependence on the behaviour. For example, individuals who engage in NSSI reported being concerned that they will not have any other strategies to cope during an emotional crisis and want to “hang on” to self-injury as an option (Kelada et al., 2017; Shaw, 2006). In other instances, those who self-injure may not know why they self-injure when they

do not want to (Tan et al., 2019). In a recent study, approximately 55% of individuals who wanted to stop self-injuring, had self-injured in the 12 months prior, while 40% of individuals who did not want to stop engaging in NSSI, had self-injured in the 12 months prior (Gray et al., 2022). This suggests a possible incongruence between desire and actioned behaviour and may represent the experience of ambivalence surrounding their self-injury (Grunberg & Lewis, 2015; Kelada et al., 2017; Shaw, 2006).

It is important to recognise that self-injury serves a purpose for those who engage in it. Hooley and Franklin (2017) propose a model that outlines some of the benefits of self-injury, as well as the some of the preventative barriers. For example, benefits of self-injury may include improved affect, self-punishment gratification, peer association, and communication of distress or strength to others. Barriers may include a desire to protect the body, a positive view of oneself, aversion to pain, or concern over breaking social norms (Hooley & Franklin, 2017). In experiencing a combination of the benefits and barriers to self-injury, ambivalence towards change may arise. For instance, an individual may engage in self-injury with the expectation that it will alleviate negative affect (benefit). Such beliefs may encourage a desire to continue self-injuring. However, societal norms have taught the individual that self-injury is shameful and may invite negative judgments from others (barrier), leading them to simultaneously desire to stop, and not stop self-injuring (Hooley & Franklin, 2017; Kelada et al., 2017; Shaw, 2006). This conflict is a hallmark of ambivalence. Acknowledging ambivalence; the benefits and barriers around self-injury, can be validating and may lead to improved treatment outcomes.

The disparity between one's desire and actual behaviour is a commonly recognized concept in behavioural research, as noted by Armitage and Conner (2001), McWilliams et al. (2019), Rhodes and de Brujin (2013), and Sheeran and Webb (2016). Ambivalence is a well-established component of decision making in research surrounding alcohol use (Breiner et al., 1999), drug use (Schlauch et al., 2013), and disordered eating (Rancourt et al., 2019). In early work, Cox and Klinger (1988) proposed a motivational model of alcohol use. Motivation toward or away from alcohol consumption occurs when the individual assesses the potential consequences of consuming alcohol. The level of motivation towards or away from the behaviour determines whether they engage in the behaviour. If the individual anticipates that drinking will improve their mood or alleviate negative emotions, their inclination to drink is likely to be stronger. The Ambivalence Model of Craving (Breiner et al., 1999) extends this perspective by including various factors such as past experiences (e.g., past re-enforcement), current circumstances (e.g., available alternative behaviours, incentives), and anticipated

outcomes when considering whether to participate in alcohol consumption, or abstain. Recent research has successfully applied the Ambivalence Model of Craving (Breiner et al., 1999) to non-suicidal self-injury (Gray et al., 2022). Gray and colleagues (2022) identified varying levels of ambivalence toward self-injury in those with a history of the behaviour. Identified profiles were differentiated by a range of past and current factors including functions of NSSI, past re-enforcement, and outcome expectancies.

Treatment approaches such as motivational interviewing aim to facilitate behaviour change by resolving ambivalence and increasing motivation. Clinicians use motivational interviewing to support the individual in identifying the advantages and disadvantages of the behaviour, the reasons for change, and any potential barriers to change. Through this process, individuals may develop a greater understanding of their behaviour and the motivations behind it, which can lead to a more sustainable change in behaviour. Motivational interviewing has been found to be effective in treating various behavioural health concerns, including substance abuse, gambling (Frost et al., 2018; DiClemente et al., 2017), and self-injury (Kress & Hoffman, 2008). Motivational interviewing acknowledges that ambivalence towards change is a normal part of the decision-making process, and such approaches assist individuals to recognise and resolve their ambivalence.

Recent psychometric research has identified that an individual may hold positive, and negative beliefs regarding their self-injury (Sandel et al., 2022). For example, they may believe that NSSI provides security and control over their emotions, while simultaneously believing that their engagement in NSSI negatively affects others. The Experiences of Self-Injury Questionnaire (ESIQ; Sandel et al., 2022) may be a useful tool in determining the extent to which an individual holds competing beliefs around their own self-injurious behaviour.

Whilst it has been highlighted in past literature that ambivalence exists in the context of self-injury (Grunberg & Lewis, 2015; Kelada et al., 2017; Shaw, 2006), there are limited in depth examinations of how ambivalence itself is experienced by the individual. Self-injury is often a complex, confusing experience hallmarked by intense, unwanted emotion or dissociation (Taylor et al., 2018; Tan et al., 2019). Ambivalence may add an extra layer of confusion through unrecognised competing desires. This confusion may extend to onlookers who do not understand how reductions in discomfort may be associated with the individual purposefully injuring themselves (Arbuthnott & Lewis, 2015; Whitlock et al., 2018). This can negatively impact interpersonal relationships, and lead to barriers in support and help-seeking (Arbuthnott & Lewis, 2015; Whitlock et al., 2018). Given the lack of understanding around

competing NSSI-related thoughts, feelings, and desires, our research aimed to explore how ambivalence may be experienced in the context of NSSI, over and above ambivalence toward the behaviour specifically. Through this we may be able to identify the factors associated with ambivalence, barriers to help-seeking, and pin-point treatment targets.

Methodology

The aim of this research was to gain rich, and in-depths accounts of the experience of ambivalence among our participants. As such, we chose a qualitative research design to explore the thoughts, feelings and behaviours occurring during the act of self-injury. The method chosen for our analysis was a reflexive thematic analysis, whereby the researchers own knowledge, past experiences, and social position interact with the data, and influence interpretations. This analysis recognises that researcher bias is unavoidable, as the data is explored through the lens of the researcher (Braun & Clarke, 2006). This method was chosen as it allows the identification of patterns within a data set, while allowing the researcher to acknowledge their own role and potential biases in their research (Braun & Clarke, 2006; 2013; 2022). Reflexivity was actioned through journalling and team discussions that allowed the first author to build awareness of and reflect upon biases, past experiences, and pre-existing knowledge and assumptions. The steps undergone as a part of a reflexive thematic analysis are described in Table 4.1.

Table 4.1

Steps of a Reflexive Thematic Analysis

Process	Description of Process
1. Data familiarisation and writing familiarisation notes	The interview recordings were transcribed by both me, and a professional transcriber. Once all interviews were transcribed, I read though each transcript in NVIVO to strengthen my familiarisation with the data. Upon reflection, I decided that working with hard copies would be more beneficial for the analysis, as I interpret information better from hard copies, paper, and pen. I then read through the transcripts again, making notes in the document margins of any preliminary thoughts related to the

	research question. This was a time consuming process but gave me a solid understanding of the information provided by our participants. During this phase, I began to notice that a great deal of data felt irrelevant to the initial research question: "What are the experiences of ambivalence in the recovery process of non-suicidal self-injury?". Instead, participants were discussing experiences of ambivalence in a variety of areas (e.g., interpersonal relationships, self-perception), which related to the level and direction of ambivalence around wanting to self-injure. As such, the scope of the research question was expanded to "How can ambivalence manifest in the context of NSSI-related experiences?"
2. Systematic data coding	During my third read through the transcripts I highlighted any information (codes) I deemed relevant to the amended research question. I included notes in the margins to facilitate my interpretation of the data. I then re-read through the coded transcripts; I made a note of related codes that could later be conceptualised in themes and discarded any codes that did not add to our investigation of the research question.
3. Generating initial themes from coded and collated data	I read through the codes related to our research and wrote potential themes on a new document. There were a large number of potential themes interpreted. As such I reviewed the themes, combining them where possible, or removing any that were not relevant to the research question. Following this, I created an initial thematic map with the following themes: Push and Pull in Desire; Confusing Feelings (with subthemes Shame, Guilt, Compassion, Loneliness, Physiological); Others Perceptions; Ruining Relationships; Help Seeking; A Catalyst to Recovery; Ambivalence in Recovery.

4. Developing and reviewing themes	Upon reflection, the themes which related to interpersonal experience (Others Perceptions; Ruining Relationships; Help Seeking) were thought to be best combined to become Interpersonal Issues. Due to the complex descriptions of ambivalence in feelings, I recognised that subthemes included in the theme Confusing Feelings would not be appropriate, as these feelings were often felt simultaneously. As such we removed the subthemes under Confusing Feelings and maintained this as an overall theme. Additionally, we removed the subtheme Physiological entirely, as it was not helpful in exploring the research topic of ambivalence.
5. Refining, defining, and naming themes	Following the above changes, we revised the names of all of our themes to ensure they sufficiently captured the interpretation of data. Our final thematic map was created (see Figure 4.1). Condensed themes became; **Push and pull; Internalising the perspectives of others, Confusing feelings; Catalyst for recovery; Lingering ambivalence**. The developed themes were distinct from one another, forming single ideas. However, the experiences described in the data slightly overlapped, creating a coherent story of how ambivalence may manifest within and across contexts. I then re-read the transcripts in light of these themes, to cross check that the developed themes were accurate with the dataset. I wrote out my interpretation in a second document as I re-read transcripts. This would later become the initial findings section of the report. During this process I began identifying quotes to best conceptualise the information included in each theme. The themes were then revised a final time to remove

	any aspects that did not relate directly to the research question.
6. Writing the report	Finally, the experiences related to each theme were written up as the findings section of the report. We extracted quotations from the data set that sufficiently captured the main components of each theme and placed them in the report. This was beneficial in ensuring that my interpretation of participant experiences was consistent with the data items.
Across phases, Reflexivity	Throughout the process, I engaged in reflexive journalling. This allowed me to identify and reflect upon any biases I may have held due to my own lived experience related to each theme, and pre-existing knowledge of the literature. Remaining aware of my own thoughts and placing them aside to the best of my ability allowed for a more in-depth interpretation of the data. I was better able to focus on the individual's unique perception of their own experiences.

Research team

The first author who conducted the coding has experience in the field of NSSI research, specifically on ambivalence, family functioning, cognitive, and emotional factors related to engagement in the behaviour. Her understanding of ambivalence in NSSI comes from her own research, exposure to self-injury in others through various workplaces, and consultation with community and peers. Two other authors have extensive experience in NSSI research, while the fourth is experienced with conducting research around suicidal thoughts and behaviours. The interview protocol was developed collaboratively by individuals with, and without lived experience of NSSI. During the development of the interview protocol, the research team anticipated that some participants may not be consciously aware of ambivalence. Additionally, it was acknowledged that self-injury is often deemed a "bad" behaviour. As such, participants may have found it difficult to recognise and explain how

self-injury may be beneficial, and in turn, ambivalence may also be difficult to explain. To make it clearer for some participants, the interview protocol included a final prompt explaining that it may be possible to want opposing things simultaneously, and asked participants what they thought of this idea in relation to their own experiences.

Researcher positionality

Self-injury is a highly stigmatised behaviour (Staniland et al., 2020), and societal construction has, for the most part, deemed it a behaviour that one ought to cease (Adler & Adler, 2007). Given that human beings generally endeavour to avoid pain and harm, this seems reasonable; however, given self-injury is relatively common (Swannell et al., 2014) and a substantial number of individuals do not want to stop (Gray et al., 2021), addressing our research aim necessitated we acknowledge, but look beyond the social construction of self-injury as harmful to identify how self-injury may be perceived as beneficial.

The first author, who conducted the interviews and analysis, adopted a critical realist stance for this study. A critical realist position recognises the complex interplay between cultural contexts, social structures, psychological factors, and individual agency in shaping experiences for the individual. In the context of self-injury, critical realism can be a useful stance because it allows us to recognise the multiple and often conflicting factors that contribute to the behaviour, and to ambivalence toward the behaviour. Through a lens of critical realism, we can identify the cultural, social, and psychological factors that impact ambivalence in the context of self-injury, and develop treatment targets for individuals with similar experiences. Through this lens, truth (including concepts of right and wrong) are subjective concepts, endorsed only through the perception of the individual. As such, self-injury was viewed as neither a positive nor negative behaviour, but a coping strategy that some individuals may want to stop, while others may not.

Ethical considerations

While discussing sensitive topics may cause short-term emotional distress, multiple studies have identified that for most individuals, participating in NSSI research creates positive effect through helping others, having their own voice heard, and enhancing the literature with their experiences. As such, taking part in research on NSSI is often seen as a beneficial experience (Hasking et al., 2015; Muehlenkamp et al., 2015). Regardless, strategies were implemented to reduce the risk of harm to participants. The research team comprised experts in clinical psychology and non-suicidal self-injury and the interviewer was trained in suicide prevention and trauma-informed interventions. All interviews were conducted in private locations to protect the confidentiality and safety of participants, and all

participants were provided a resource document listing mental health services to access if needed in addition to the ability to stop the interview or withdraw participation up until the start of the analysis.

Participants

Participants were 27 female and 4 male undergraduate students between the ages of 17 and 31. All participants had a self-identified history of repetitive engagement in NSSI. Reported age of NSSI onset was between 10 and 19 years of age, with most participants reporting onset between ages 13-15. Twenty-five participants reported that NSSI was no longer a part of their lives. Six participants reported still engaging in NSSI (ID's: P5, P7, P8, P28, P29, P31). Of these six participants, one reported that they had no desire to stop self-injuring (P7). Cutting was the most commonly reported method of NSSI (n = 28), followed by self-battery (n = 5), burning (n = 4), hair pulling (n = 2), scratching (n = 2), biting (n = 1), and sticking with needles (n = 1). Eleven participants reported using multiple methods of NSSI (P1, P2, P4, P10, P11, P12, P15, P19, P20, P22, P29).

Procedure

Following approval from the Human Resources Ethics Committee, an advertisement for the study was placed on the [removed for review] undergraduate participation pool website. The only requirements for participation were a history of repetitive engagement in NSSI, and proficiency in written and spoken English. NSSI was defined as the deliberate damage to one's own body without suicidal intent. (International Society for the Study of Self-Injury, 2022). Participants who self-identified as meeting both these criteria were eligible for participation in the study. The interview was designed as a semi structured interview on ambivalence in the context of non-suicidal self-injury. The interview was developed, practiced, and adapted by the research team, some of whom identified as having a history of repetitive NSSI. The semi structured interview focused on the research topic, while allowing for other relevant experiences associated with NSSI to be discussed. The interview guide asked participants their experiences of engaging in self-injury, initially without explicitly defining ambivalence, then later providing a definition of the term and capturing their experiences with a stronger understanding of the phenomenon. Participants signed up online through the institution's research participation portal. Upon signing up for the interview, eligible participants were emailed an information sheet of what was required, and that the interview would be recorded. The first author interviewed 31 university students with a history of self-injury and then conducted a reflexive thematic analysis on the resulting data (Braun & Clarke, 2006; 2013; 2022).

Due to the sensitive nature of the research topic, each interview was conducted in person. The opportunity to read body language of the participants was important to sensing discomfort. Participants could be comforted or take breaks should they become distressed throughout the interview. Verbal and written consent to commence recording was obtained by each participant immediately prior to each interview. Interviews lasted between 45-60 minutes and were audio-recorded. Participants received course credit for participating in the study. Fifty-five percent of the recorded interviews were transcribed by the first author, the other 45% were transcribed by a professional transcriber. All transcripts were kept in a password protected drive. Upon completion of transcription, participants were provided a password protected copy of their interview for member checking. Participants were given two weeks to respond and advised that no response would represent approval of the transcript. After two weeks all transcripts were de-identified.

Analysis

A reflexive thematic analysis was conducted using the interview transcripts. The first author conducted the interviews and the analysis. Once transcripts were checked by the participants for errors, the first author re-read the transcripts to orient them towards analysis. During a second read, codes that were relevant to the research topic were highlighted. Experiences of ambivalence were coded where there were simultaneous contradictions or opposing experiences described within the same topic or area of interest. We adopted an iterative and blended procedure, involving an inductive and deductive approach during coding. Initially, coding was done at the semantic level to explore the experiences of ambivalence in NSSI behaviours among our participants. During the coding process we noticed that our codes were aligned with existing theory on ambivalence and NSSI. It was through an inductive approach that we were able to recognise the existence of ambivalence in areas that were separate to NSSI behaviours, yet may have impacted ambivalence in NSSI behaviours. This idea mapped onto the predominant theoretical models that were most familiar with the coder. As such, in the second round of coding we integrated a deductive approach. This coding was done at the latent level, where we could draw upon our knowledge of ambivalence theory and NSSI theory, which became our lens for exploration of the data. Specifically, deductive coding was utilised to explore levels of ambivalence toward NSSI, as per the Ambivalence Model of Craving (Breiner et al., 1999), as well as the emotional experience, interpersonal association, and social norms, included in the Benefits and Barriers Model (Hooley & Franklin, 2017) which are thought to contribute to varying levels of ambivalence toward self-injury. This process of coding was repeated, and gradually

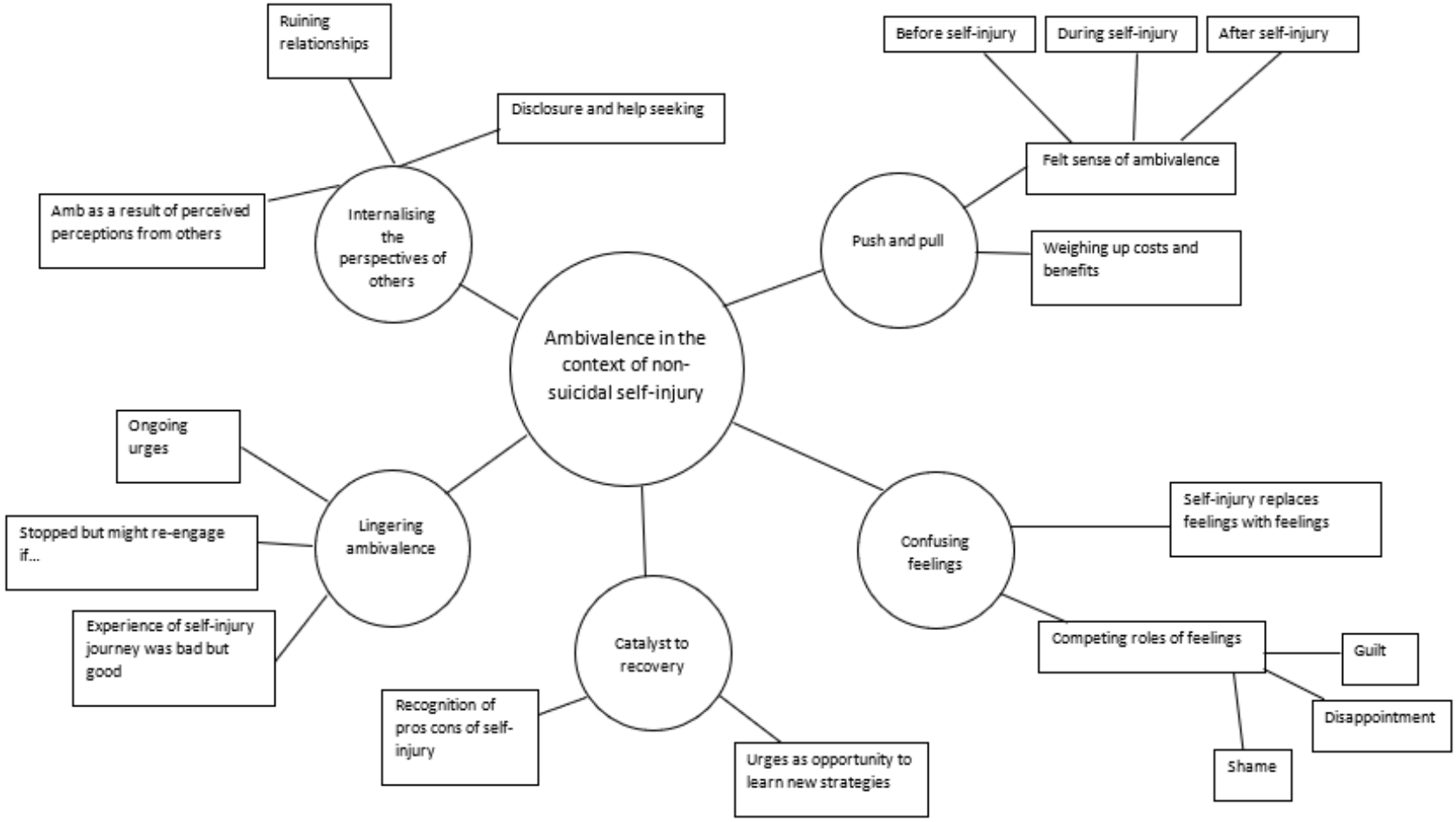
connections between codes were made resulting in themes. Themes were generated through discussion amongst the authors, establishing how the codes represented experiences of ambivalence. Quotations were then chosen based on their representativeness to the theme. During the two months of interviewing, and throughout the coding process, the first author regularly maintained reflexive journals to identify any biases or beliefs that may have impacted their interpretation of the data. Additionally, we engaged in debrief discussions after each interview, and regularly throughout the coding process.

Results

All participants appeared to experience ambivalence to some degree without being provided an explicit definition of ambivalence, though this was not always labelled as ambivalence, nor was it always consciously recognised. However, throughout the interviews some participants would recognise themselves that some of their explanations of an experience were contradictory. Labelling it as "*ironic*" by Participant 27, or "*a weird dichotomy*" by Participant 28. Once our participants had the dichotomy explained and were explicitly aware of the phenomenon of ambivalence, most participants reported experiencing it at some stage. Others denied ever experiencing ambivalence, yet went on to describe their experiences in conflict over the costs and benefits of engaging in self-injury. Ambivalence manifested in competing beliefs, desires, and emotions related to self-injury.

Five themes were developed through exploring how ambivalence may manifest in the context of NSSI-related experiences. Each theme represents a different context where ambivalence occurred and led to the individual engaging, or not engaging in self-injury, with varied levels of desire to engage in the behaviour. The first theme, **Push and pull** reflects ambivalence toward self-injury in two temporal contexts: first, ambivalence toward the behaviour more generally. For example, a reflection on the advantages and disadvantages, or motivations toward/away from the behaviour. Second were more specific experiences demonstrating how ambivalence may manifest across the initial urge to self-injure, to acting on the urge, through to proceeding the action of self-injury. The second theme, **Internalising the perspectives of others** reflects how the opinions, beliefs, and reactions of others can conflict with those of an individual who self-injures. The third theme, **Confusing feelings** demonstrates the complexities in the emotions felt during self-injury. The fourth theme, **Catalyst for recovery** illustrates how individuals came to cease self-injury through an understanding of ambivalence. The fifth and final theme, **Lingering ambivalence** reflects how ambivalence around self-injury can continue even after an individual considers themselves to have stopped the behaviour. These themes are illustrated in Figure 4.1.

Figure 4.1 ***Thematic Map***



Push and Pull

This theme captures the experience of ambivalence when deciding whether or not to engage in self-injury. There appeared to be two aspects to this theme; the balancing up of costs and benefits associated with engaging in self-injury, and the felt sense of ambivalence including the outcomes of the experience.

Motives for engaging in self-injury were explored throughout the interviews. Ambivalence was often experienced as a push and pull between the overall outcomes (i.e., advantages vs disadvantages). Participants were better able to identify the benefits and costs of self-injury upon reflection, whereas ambivalence in the moment of self-injury was often unrecognised, and self-injury was seen as *"the only way"* [of managing in the moment] by multiple participants. The reported costs of self-injury included other people discovering their self-injury, having to explain their self-injury to others, fear of stigma, scarring, hurting family and friends, not liking how they look, and going against values or religious beliefs by damaging their body. The reported benefits of self-injury included that the behaviour was perceived as the only strategy strong enough to provide immediate relief from intense emotion. Additionally, self-injury was described as requiring no money and easy to do. Participant 25 reflected that it took no "*mental work*" and was a "*sure thing*" to settle down emotions. Some participants stated that they liked the wounds and pain self-injury caused, particularly when they felt they deserved it.

In balancing up the costs and benefits of self-injury, some participants recognised that simultaneous, competing desires to engage, and not to engage, in self-injury existed. For instance, Participant 8 shared, "*I think I am always consciously aware in some sense that I don't want to do it. But I guess sometimes more than others it's more really in the back of my head than in the forefront*." Others, for example Participant 20, have "*always not wanted to do it, but like the need to do it outweighed that*"; ambivalence was experienced not as competing desires, but as a *desire not* to self-injure, versus a *need* to self-injure. Participant 21 described the behaviour as a "*last resort*", explaining, "*I didn't really want to unless I had to*". Ambivalence was common and "*a lot easier to see*" in hindsight "*whereas in the moment it's a lot harder*", as stated by Participant 30. Many participants expressed confusion about why they continued to self-injure when they did not want to. This was illustrated by Participant 25:

> *I guess the whole battle between wanting to do it and not wanting to do it, I don't know I think that also just made it a lot worse…I wanted to do it but then I knew I shouldn't…I didn't understand what I was going through…*

This participant appeared to understand that they had reasons for engaging in self-injury but seemed unable to recognise them. The experience of ambivalence created discomfort, compounding the already existing discomfort that created an initial urge to self-injure. The detrimental nature of ambivalence was articulate by Participant 22, "*It made me feel less of a human…engaging in this thing that wasn't right, but I couldn't help myself*".

Some participants described ambivalence about engaging in self-injury both before and after self-injuring, but interestingly, not in the moment of engaging in self-injury. Participant 28 described thinking, "*oh, I shouldn't, but I want to, I shouldn't*" prior to self-injuring and then "*in the middle* [of self-injuring] *it just, like, sits at that point between, like, no thought about it*". Similarly, Participant 11 described that putting aside the ambivalence was needed "*just to engage in the behaviour*", and that "*in the moment it's just, like… you're not thinking of anything*". The push and pull of ambivalence were apparent in participants' descriptions of how their desire to engage in or resist self-injury shifted throughout the initial urge to the completion of the behaviour. When urges to self-injure were acted upon, participants described a threshold was met, where ambivalence was resolved toward engaging in the behaviour, and then resurfaced once the action had ended. This was described as "*kind of like a push and pull*" by Participant 16, and as an experience of two voices by Participant 22:

> *Metaphorically there's like two voices in my head that are like, 'you should do this it's going to make you feel better' but the other voice is like, 'no, you know this is not going to help you' but sometimes if the emotion is like very heightened like the just do it sort of takes over…even though I don't want to do it I'll just do it anyway because… I'm feeling like it's going to make me feel better regardless, but it doesn't.*

This participant detailed the conflicting nature of self-injuring: a strong desire to reduce the emotion immediately, with a coinciding awareness that the emotion may return or even worsen in the near future. However, not all participants described experiencing ambivalence prior to self-injuring. Some participants reported being unable to recognise any desire not to self-injure before doing so. For example, Participant 1 shared, "*I just, like, lost control and I just went into it* [self-injuring]". For the participants who shared this experience, self-injury was described as an "*impulse*" or "*habit*".

Experiencing ambivalence toward self-injury in the moment led to different outcomes between participants. Some participants stated that they had experienced both "*impulsive*" self-injury with no ambivalence, and internally debated self-injury with consciously recognised ambivalence. When asked which led to worse outcomes, responses were mixed.

Most stated that during *"impulsive"* self-injury, they perceived their self-injury as intentional, and therefore had a greater feeling of satisfaction and less guilt, compared to when they experienced internal conflict over engaging, where their feelings of satisfaction were lower and they experienced more guilt. Participant 24 illustrated this:

> *If I thought about doing it and I was like, 'yeah, I'm going to do this', then afterwards I would just feel, like, better about myself, because I was like, 'yep, that was my intention'… opposed to that, like, if I thought, like, 'hey I shouldn't do this, I don't want to do this' but I did it anyway - that would just make me feel like really bad about myself.*

On the other hand, when a participant self-injured after deliberately considering not self-injuring, they reported feeling like they had let themselves down. Others stated that experiencing ambivalence delayed action, which allowed for deeper consideration of how, and where on the body to self-injure depending on who may see it. They also reported planning the severity of their injury or "*how many*" wounds they would limit themselves to. There was a desire to self-injure competing with a desire to cause minimal harm. For instance, Participant 28 shared:

> *I think when the conflict was there it also made me think a lot more about the aftermath? Of like "ok like, where are the marks? Who's going to notice them?" Like, "what am I doing tomorrow am I going to the beach tomorrow?" it'd be a lot more premeditated, and I'd be a lot more careful to hide them and make sure that you know, it was contained.*

Here, Participant 28 illustrated ambivalent thought processes; weighing up the perceived importance of the negative outcomes and adjusting their behaviour accordingly.

Overall, participants felt that ambivalence was tiring, confusing, and frustrating when they were unaware of competing desires. Becoming aware of ambivalence initially created anxiety toward the future, as they realised that despite not wanting to self-injure in some moments, that desire could shift, leading them to behave in a way they wished not to. Additionally, participants described in the moment ambivalence as adding more emotion (shame, self-disappointment) onto already escalating negative emotions.

Initially we anticipated hearing experiences of ambivalence around the act of self-injury; however, it became apparent that ambivalence was felt in several other areas related to self-injury. Shifts in ambivalence in these other areas often led to shifts in ambivalence toward self-injury. As such, ambivalence in contexts *related* to self-injury were deemed important to explore. These areas are captured in the themes below.

Internalising the perspectives of others

Tense relationships with family, friends, partners, health professionals, and the wider society were viewed as detrimental by participants and were often perceived as catalysts to self-injury. Harmonious relationships with these same groups were viewed as beneficial; however, relationships were often not that simple. When participants internalised the negative opinions of others, it created ambivalence around how they viewed themselves, which led to ambivalence toward engaging in self-injury. The internalisation of others' perspectives, and subsequent ambivalence toward self-injury appeared to occur predominantly in 3 contexts; i) when experiencing criticism from others; ii) when disclosing self-injury to others; iii) when attempting to refrain from engaging in self-injury.

Participants explained that criticism from others shifted their desire to self-injure from not wanting to engage in the behaviour, to becoming ambivalent. This ambivalence toward self-injury occurred particularly when the criticism came from people close to them, such as friends, family, or a partner. Some participants described a struggle with self-image due to others' opinions, sometimes to the extreme of questioning their own reality and identity. Participant 1 described this struggle in describing a conflict between their own reality and their perception of what others thought of them:

> *Yeah it* [self-injury] *was always related to how I see myself… if someone is saying to me that I'm doing something, but I'm not, it's kind of like questioning my own reality, it's like a form of manipulation, so if someone is trying to manipulate my point of view…*

Here Participant 1 suggests that the negative views of others created an internal conflict around their self-perception, leading to confusion, and contributing to subsequent self-injury. Participants described struggling to reconcile the perceived critical opinions of other people and their own positive or neutral view of themselves, which appeared to erode their sense of self-worth and intensify their desire to self-injure. Participant 10 explained:

> *… my self-worth was just kind of like taken away like a little bit of a slice at a time… She'd be like 'Oh you're going to wear that?'… 'Oh are you sure you want to do your makeup like that?'… that self-worth got eroded… without me even realising it until it had gone. And like the 'well I'm hurting myself but I don't care because I'm not worth it'.*

For this participant, the ongoing questioning of their actions by others created ambivalence regarding their self-perception, eroding their sense of self-worth, and increasing their desire to self-injure. Criticism from others tended to result in ambivalence around self. Ambivalence

around self then seemed to impact the experience of ambivalence toward self-injury. Oftentimes, this shift in ambivalence toward self-injury resulted in engagement in the behaviour.

Participants recognised that help-seeking, often beginning with disclosure to family and friends, may be an important step to stopping self-injury. However, perceived interpersonal issues led to ambivalence when considering self-injury disclosures. Participants described simultaneously wanting and not wanting their self-injury to be noticed by others. Whilst they wanted their pain to be recognised, they did not want to burden others or be subject to unwanted questions about their self-injury. For many, this included mental health professionals; one participant stated that the best support she received from a mental health professional was when they did not discuss her self-injury at all. Others sought professional help but did not bring up their self-injury due to the shame they felt. It appeared that while many individuals did want help, some did not want help, or were ambivalent toward treatment if their self-injury was to be a primary focus.

The experience of self-injury disclosure was made more complex by ambivalence. Disclosure to family and friends was described as both beneficial and detrimental. Participant 25 described this dichotomy, "*I felt a lot more cared for…when people knew. I mean also like feeling like an outcast and everything*". For this participant, others knowing of their self-injury created a strong sense of support, alongside feeling like "*I was like the bad guy, but like, I wasn't*". Other participants described feeling guilt when family members expressed disappointment, and while disclosure provided more open communication for some, it increased shame and hiding for others.

A common thread throughout the interviews was the perception that self-injury was easier than being vulnerable and seeking help. Some participants felt that seeking help, while beneficial, was going to burden others. Participant 3 explained their ambivalence around somebody else noticing their self-injury, with a simultaneous desire to hide the behaviour:

> *I always had a sense of hope in a way, that I'd kind of think ok if someone notices then I will get the help I need if that makes sense, so even though a huge part of me wanted to keep this a secret, I also I was you know, craving that uh, support I needed, and that really I dunno, whenever I'd* [self-injure] *I thought maybe this time someone will notice and say something.*

The complexities of wanting support, together with a strong desire to hide the behaviour suggests that individuals who self-injure may want to be heard for the underlying issues rather than the behaviour itself.

Some participants experienced ambivalence around their self-injury due to concern that regardless of whether they self-injured or not, the outcome had the potential to damage their close relationships. These individuals reported that if they self-injured and a partner or family member found out, it would lead to disapproval and a rift in their relationship. At the same time, they felt that if they did not self-injure, their emotions could lead to withdrawing from or lashing out at those close to them, also causing a rift in their relationship. For instance, Participant 28 described that discovering their self-injury "*was kind of the final push for my mum to just go 'I don't wanna deal with you'*,"; however, they also identified that without self-injury "*the really intense emotions are left with nothing to really channel it into*". They explained that without self-injury to release these emotions, "*I would be more likely to lash out at other people… I'll withdraw more, and I'll be like, ok I need to take a step away and sort myself before I'm ready to kind of see people. And that damages relationships*". For this participant, there was acknowledgement that engaging in self-injury could damage relationships, yet not engaging in self-injury could also damage relationships. This created ambivalence toward engaging in the behaviour.

Confusing feelings

This theme captures confusion and ambivalence in emotional experiences. Emotional experiences were closely tied to ambivalence around self-injury. Emotional ambivalence appeared to exist across two contexts: the same emotion serving as both a catalyst and deterrent to self-injury; and the same emotion related to self-injury being experienced as both negative and positive. Several nuances were described within these contexts and emotions were described as confusing and overwhelming - additional difficult emotions that may have catalysed subsequent self-injury.

Participants reported that a single emotion could have conflicting outcomes in relation to self-injurious behaviour. For example, Participant 4 noted that "*shame stopped me from doing it, and then other times it was shame for something else that made me want to do it*". Here the participant describes how the same emotion could be felt in different situations and could shift the ambivalence surrounding their self-injury to either engage or not engage in the behaviour. Similarly, other participants explained how self-injuring provided a sense of control, but not self-injuring also provided a sense of control. For example, Participant 27 described, "*I actually found a way to stop myself from doing it. So that again, like even though like harming was a sense of control, it's control again. Because you're like curbing that*". Here the participant identifies how engaging in self-injury, or resisting self-injury, provided them with the same emotional outcome.

Participants explained how multiple emotions, often competing in valence (i.e., one "pleasant" and one "aversive"), could be felt at the same time. Common examples of competing emotions were loneliness, guilt, and disappointment, alongside relief. Participant 3 described ambivalence in emotions during self-injury as "*a mix of hope and guilt*"; hope that self-injury would "*fix*" the unwanted emotion, amid the guilt that they "*had to resort to this* [self-injury]". Disappointment was also described alongside calmness, one pleasant emotion and another aversive emotion simultaneously. Self-injury as a means of self-punishment was described by Participant 28 as an "*atonement*", with the expression of self-hatred coinciding with calming emotions. Additionally, guilt and self-hatred played multiple roles for this individual; guilt contributed to self-hatred, which provided comfort, a sense of achievement, and also fuelled a desire to stop self-injuring. They described:

> *The guilt can also like, it can absolutely feed the cycle of self-hatred but it can also fuel you to change and to you know, recover… even with the self-hatred there's kind of like… 'I deserved that and I gave myself what I deserve… at least I did that right'.*

Relatedly, Participant 9 stated, "*I was just happy that… I was feeling this* [pain] *rather than anything else".* They elaborated to describe how guilt, self-hatred, and disappointment post-self-injury were preferable, calming emotions compared to the stress and frustration that preceded self-injury:

> *Feeling disappointed in myself was another way that I could sort of, physically calm myself and embracing that pain I get, use that secondary response to hurt myself more. And I just thought, it's better to be disappointed in myself than feel so anxious and stressed about the world around me, and my future.*

Despite this array of complex, conflicting emotion, Participant 9 expressed that they would simultaneously "*kind of feel relieved*". These experiences highlight the complicated nature of emotional ambivalence, and exemplify why overwhelming emotion is such a prominent feature of self-injury.

Participant 8 referred to self-injury as "*double barrelled*" in that it takes away unwanted emotions (e.g., "*stress*", being "*overwhelmed*", or feeling "*angry*", or "*sad*"), while simultaneously adding more unwanted emotions (e.g., feeling "*shame*", "*guilty*", "*embarrassed*", and "*weak*"). As described by Participant 5, "*Feelings of guilt arise after, it just builds onto those previous emotions so it kind of puts more of a toll on you*". This led to ambivalence around self-injury; participants recognised that while they wanted to self-injure to reduce unwanted emotions, they did not want to self-injure as the outcome was more unwanted emotion. Competing emotions associated with self-injury appeared to change

rapidly, and the multifaceted nature of each emotion made it difficult for participants to understand and articulate how they are feeling in any given moment. Given that self-injury was most commonly used to manage difficult emotions, it appeared that experiencing ambivalence in feelings could thwart recovery efforts.

Several complexities surrounding self-injury related emotion were evident. Additionally, these complexities were weaved throughout multiple separate, but associated situations, playing simultaneous positive and negative roles for our participants. It is important to recognise how confusing experience self-injury can be. Compassionate support that fosters self-compassion for the individual self-injuring is likely critical to person-centred recovery.

Catalyst for recovery

Recognising and understanding experiences of ambivalence appeared to serve as a catalyst for recovery. When participants wanted immediate relief or punishment and became aware of not wanting the negative consequences associated with self-injury, they were better able to separate the two processes. Conceptualising their desires in this way appeared to contribute to their recovery. Participant 22 reflected their gradual recognition of ambivalence. When asked whether ambivalence was something they were aware of, Participant 22 stated: "*Not at the beginning but like as time progressed yes but I think I became more self-aware of who I was as a person so I knew sort of what I wanted…As I sort of grew older it became more clear that there was two voices rather than one mixed I guess if that makes sense*." The recognition of ambivalence gave this participant the space to know what they wanted, and self-injury stopped providing them with the satisfaction it used to when they were younger.

Recognising ambivalence appeared to reduce some of the participants' confusion around why they were engaging in a behaviour they did not want to engage in. However, this awareness impacted participants in different ways. For some, the recognition of ambivalence appeared to maintain the same "*moral battle with yourself*" as described by Participant 27 - being aware of both wanting to engage in self-injury and not wanting to experience the associated negative outcomes. In these situations, some found that focusing on the negative consequences of self-injury increased ambivalence and discomfort when resisting the urge to self-injure. For instance, Participant 11 explained:

> *I was very conscious of it* [ambivalence]*... because it is a cycle, you just don't know where to break it* [not self-injure]*... wherever you're going to break that cycle its either a disadvantage or advantage… the advantage of breaking it obviously would be like to stop hurting yourself and that's gonna stop you being depressed and stop the guilt and*

> *your low self-esteem and all those things, and then the disadvantage is… even if you do stop that behaviour, you're still gonna feel guilty in a weird way for not punishing yourself… it's very hard.*

While this participant was aware of their ambivalence, their description suggests that the advantages or disadvantages did not outweigh the other. This could lead to higher levels of stress during an urge around which option to choose (self-injure or not), perhaps highlighting a need to resolve ambivalence.

For others who had recognised ambivalence, they described that initially their motivation to stop self-injuring was driven by disadvantages centered around extrinsic factors such as societal expectations, fear of stigma, and damaging relationships. Over time, their motivation to stop self-injuring became intrinsic, which appeared to have a stronger impact on shifting ambivalence toward stopping the behaviour. Internalising their motivation to stop self-injuring was achieved through recognizing ambivalence in their decisions, realising the negative impact it was having on them personally, and developing self-compassion. This was captured by Participant 28, who described:

> *The kind of, 'I shouldn't do this for the sake of other people,' kind of faded away a bit more and I relied on the kind of, 'I don't want to do this for myself'… that conflict of 'I know I shouldn't do this, this is wrong, but I want to' kind of just feeds self-hatred… as soon as I realised that that was happening, I kind of, like, was, 'oh ok I need to actually be more kind to myself in the moment'.*

In this quotation, it is evident that the words "*should*" be behaving and "*want*" to be behaving were the opposing elements comprising their ambivalence toward self-injury. Unconscious ambivalence appeared to be a stressful and painful experience for this participant, but recognizing ambivalence and its impacts became a catalyst for positive change; not only did their self-injury reduce, but they also developed more self-compassion.

Some participants could reconcile ambivalence by evaluating and challenging negative thoughts. Participant 30 illustrated how they resisted urges to self-injure by "*knowing that my thoughts aren't necessarily the truth, and that there are other ways that I can deal with that* [anxiety and depression]". Similarly, when Participant 28 experienced thoughts of self-hatred, they looked for evidence to challenge these thoughts by writing down negative self-talk in one coloured pen and challenging these thoughts using a different coloured pen to "*write like a response to each thought as if it was like a friend*". This exercise represents a practical approach to reconciling ambivalence that others may also find useful. Participant 26 resolved their ambivalence by embracing painful emotions as a part of being human and

becoming "*friends with your demons*". This acceptance reduced their need for self-punishment. Ongoing urges to self-injure were commonly experienced and described as tiring. Over time, participants learned that urges to self-injure occurred alongside a desire to not self-injure, and sitting with an urge naturally resolved their ambivalence in the direction of not wanting to self-injure. Participant 26 described why accepting urges was beneficial:

> *The more you deny something, or the more you fight off an urge, the more cognitive dissonance you're going to get. Which kind of, I guess, leads to more and more stress. And that loops back into the cycle…fighting off the urge is, in its own nature, really, really taxing.*

For some participants, continued self-injury was perceived as useful to understanding the competing costs and benefits that contributed to ambivalence, while building other coping mechanisms (e.g., cognitive reappraisal). Participant 11 described this process:

> *I was trying to be, like, more mindful. Like, 'oh this isn't helping me, every time you do it'. Trying to be aware, 'this is making me more guilty'. Like, yeah, trying to be aware and, like, really present in the act. Kind of like just to talk myself out of it while I was doing it as well… otherwise you haven't formed those mental, like, good coping mechanisms. Rather than just stopping and not having those thoughts formed… maybe if I had just randomly stopped, I'd probably start doing it again, and it would last longer.*

Once ambivalence was noticed, Participant 11 seemed to embrace these moments as opportunities to reflect on the competing thoughts and feelings, and to form new coping strategies. Continuing to engage in self-injury rather than stopping suddenly enabled them to leverage ambivalence for recovery, leading to a more robust recovery.

Lingering ambivalence

Most participants stated that they were on the path to recovery; some had not engaged in self-injury for years, some were still self-injuring but trying to stop, and one participant had no desire to stop the behaviour. However, even those who reported self-injury to be no longer a part of their life, also reported continued urges. For example, Participant 22 who explained that they did not want self-injure again, had not done so for 2 years, but stated, *"I mean like every once in a while when I feel like very emotional um like, the urge will like slip into my head but like leave very quickly."* For others, experiencing an urge after cessation was a more distressing experience with longer-term consequences. As illustrated by Participant 17 who, after years of cessation, had recently felt an urge to self-injure:

It lasted hours… I just couldn't turn it off…[later in the interview]*…I was like, 'Oh I feel shit now but deep down I know I'm not going to self-harm or anything'…but then when that two weeks ago happened that just kind of changed that deep down knowing you'd be fine feeling, and now it's a bit like… deep down I'm not sure.*

For this participant, experiencing an urge was *"very scary"* as they felt if they self-injured again they would be *"back at square one"*. Despite never wanting to self-injure again, a desire to self-injure in one moment created ongoing feelings of ambivalence around their future safety.

Additionally, despite reporting that they did not self-injure anymore, participants described examples of situations where they believed they may engage in self-injury again (e.g., a partner cheating, death of a family member, university stress, criticism). In this way, ambivalence was present for the possibility of self-injury. This was apparent in Participant 6's experience. When asked about future self-injury, they stated, "*I think I'm way pretty well beyond that*". However, they conceded that self-injury may re-emerge in response to "*maybe, like, a relationship breakdown or like the loss of a family member*". After some consideration, they added, "*but even so, I think, like, now I have completely different ways of dealing with things, so, um, personally, I don't believe I would. Um. I guess maybe, I don't know*". Like many participants, Participant 6 had experienced an extended period of cessation, believed they had formed new coping strategies and would not need to engage in self-injury again, while simultaneously believing they might.

Throughout the transcripts there was a common theme that self-injury was "*bad*", while also a beneficial experience in retrospect; a clear illustration of simultaneous, competing beliefs (i.e., ambivalence) about the behaviour. Specifically, participants stated that it helped them learn strategies to cope, that it built resilience, facilitated communication, improved relationships, and increased their ability to help others experiencing the same difficulties. Experiencing both positive and negative aspects was common. Participant 22 described, "*It's not really black and white because I see it as like a bad thing but if I could go back in time I wouldn't change it because it made me who I am as a person*" and Participant 9 described, "*I think it was just, it wasn't a good experience…but I think it was an experience that was necessary to me to um, just become better as a person at dealing with unwanted emotions as a whole*". There participants perceived their self-injury journey to be both a positive and negative experience.

When exploring continued ambivalence in recovery from self-injury, it was evident that continued urges are common after stopping the behaviour. Despite this, experiencing an

urge may leave the individual feeling uncertain about their ability to resist self-injuring in the future. While self-injury is not a behaviour that participants want to engage in again, the perceived benefits of the behaviour appear to be ongoing throughout the process of recovery.

Discussion

Using reflexive thematic analysis, we explored experiences of ambivalence in the context of non-suicidal self-injury. Consistent with previous research (Grunberg & Lewis, 2015; Kelada et al., 2017; Shaw, 2006), our findings show that many individuals who self-injure experience ambivalence toward engaging in the behaviour. While we initially anticipated that ambivalence would be specific to the act of self-injury, we found that ambivalence was present in a range of experiences including emotions pre and post self-injury, interpersonal experiences, and self-perception in relation to engaging in and stopping self-injuring.

There is often incongruence between desired and actioned behaviour, and this is well-recognised in the behavioural literature (Rhodes & de Bruijn, 2013; Sheeran & Webb, 2016). An individual's perception of what they *should* do is not always the same as what they *want* to do. This concept may be more difficult to understand and accept in the context of self-injury – it can be difficult to comprehend why somebody would want to intentionally wound themselves to "feel happy" (Tan et al., 2019). The perceived benefits of self-injury are typically underacknowledged; it may be difficult to reconcile the conflict between what society deems a socially acceptable emotion regulation strategy, and what is deemed an unacceptable strategy. For example, the socially acceptable strategy of cognitive reappraisal may require concentration and patience; the socially unacceptable strategy of self-injury requires little cognitive effort and emotional relief is usually immediate. This may contribute to the confusion experienced by those who self-injure, as they struggle to reconcile coping strategies that are unacceptable, as immediately helpful in a moment of emotional discomfort. From our findings, consistent with literature (Norman et al., 2022) it appears that ambivalence toward the nature of self-injury emerged from other's negative conception of self-injury, versus the functional properties of the behaviour felt by those who self-injured.

Consistent with the Emotional Cascade Model of Emotion (Selby & Joiner, 2009), participants in our study described a cyclical build-up of negative cognition and emotion prior to engaging in self-injury. Our findings showed that participants experienced two sets of cognition/emotion: the initial situation which generated confusing emotions (e.g., conflict with partners, peers, or family) where they felt the self-injury was deserved, but also believed self-injury was bad, compounded by a second layer of confusing emotion, where they felt a

failure for intentionally self-injuring when it is a "*bad*" behaviour. When experiencing ambivalence before self-injuring, our participants were aware that the behaviour would help, and not help at the same time, creating a conflicting and confusing situation. It is possible that for those who self-injure, multiple, opposing cascades occur when self-injuring – the triggering situation, alongside the dissonance over the coping strategy that they perceive works best for them. This experience may add to the confusion one faces when managing competing and overwhelming emotions during self-injury.

Ambivalence appears to be a common and confusing experience for individuals who self-injure. As such, it may be beneficial to acknowledge that competing desires around self-injury can co-exist. Self-injury is often described as effective in reducing emotion (Taylor et al., 2018), yet the fear of stigma (Staniland et al., 2020), the anticipated negative perceptions of others (and of self), and the multiple layers of cognition and emotion occurring for those during an episode of self-injury may become overwhelming. Possibly contributing to a stronger desire to engage in the behaviour. If an individual was to take a step back and recognise that competing emotions are a sign of natural decision making (Grunberg & Lewis, 2015; Kress & Hoffman, 2008), and not a sign of weakness, they may be more equipped to deal with the build-up of emotions in the moment. Resolving ambivalence may reduce shame, and potentially prevent engagement in the behaviour. Recognising that ambivalence is natural and to be expected, would be a beneficial first step in the non-linear self-injury recovery process.

The commonality with which participants described ongoing urges to self-injure even following long periods of cessation suggests that managing continued urges needs to be considered when working through recovery. Additionally, several participants shared circumstances that may trigger a return to self-injury, including a relationship breakup or death of a loved one. It appeared that ambivalence in the context of self-injury does not necessarily stop when the behaviour does. Therefore, understanding ambivalence may be crucial for individuals who want to stop self-injuring. By recognising and accepting that one can hold multiple competing desires/emotions, and individual may be better equipped to manage the confusion that arises from experiences of ambivalence. Indeed, many participants described that noticing and understanding ambivalence was a catalyst for recovery. They found that urges were easier to resist, self-confidence was boosted, and self-awareness allowed them to resolve their ambivalence toward more positive, self-compassionate outcomes. For example, participants described replacing negative internal dialogues with

more positive dialogues or interpreting an urge as a signal to engage in alternative activities such as calling a friend for support, or engaging in physical exercise.

Theoretical Implications

Our findings suggest that ambivalence may be beneficial to consider when conceptualising self-injurious behaviours. The Benefits and Barriers Model (Hooley & Franklin, 2017) is, to date, the model most applicable to conceptualising ambivalence in NSSI. Outlining the competing benefits and barriers toward engaging in self-injury provides a framework when working with ambivalence toward NSSI. Accounting for ambivalence in the benefits and barriers themselves (e.g., emotion, peer relationships, social norms) which might directly influence one's level of ambivalence toward the behaviour of self-injury may be useful in prevention and treatment. Especially considering participants' views that treatment was most beneficial when the focus was not on self-injurious behaviours themselves. Many of the current models relating to NSSI do not explicitly recognise the experience of simultaneous competing cognitions and emotions, which is likely a key aspect of self-injury that individuals who engage in the behaviour may not even recognise.

Another ambivalence-related concept that could be applicable to NSSI research is the intention-behaviour gap, which is widely studied in health psychology (Armitige & Conner, 2001; Rhodes & de Bruijn, 2013; Sheeran & Webb, 2016). The intention-behaviour gap refers to the fact that intention to engage in (or not engage in) a behaviour does not always predict behaviour (Rhodes & de Bruijn, 2013). Ambivalence has been considered a moderating factor in the intention-behaviour gap (Conner & Sparks, 2002; Sparks et al., 2004), and may therefore be useful to understand when explaining the gap between desire to cease self-injuring (or not) and the behaviour. Understanding ambivalence in the context of self-injury may allow for a more comprehensive understanding of the processes underpinning the behaviour. Related to this, our conceptualisation of desire to engage in or resist self-injury may require reconsideration. Currently, a binary approach is used to assess wanting/not wanting to self-injure (e.g., The Inventory of Statements about Self-Injury; Klonsky & Glenn, 2009). This operationalisation does not allow for ambivalence, as it assumes an individual either wants to self-injure or does not want to self-injure. Additionally, outcome variables in current theoretical models tend to only account for actual engagement in self-injury, not including desire to engage (e.g., Cognitive Emotional Model of NSSI; Hasking et al., 2017). It may be beneficial to examine outcome measures as multidimensional to capture ambivalence regarding self-injury and therefore gain a more accurate representation of the experience for those who self-injure.

Practical Implications

Ambivalence can be confusing for individuals who self-injure. It may also cause frustration for health professionals who see recurring self-injury during an extended recovery process (Gray et al., 2021). For those who want to stop self-injuring, a valuable therapeutic approach may be acknowledging that re-engaging is not a failure, but rather part of the broader, on-going, non-linear recovery process (Gray et al., 2021). Levels of desire are likely to fluctuate when there are perceived advantages and disadvantages of any given behaviour, including self-injury (Kress & Hoffman, 2008). Accounting for ambivalence in person-centred treatment could enhance clarity and self-awareness, while minimising frustration for the individual, onlookers, and health professionals (Gray et al., 2021). Tools such as decisional balance matrices or motivational interviewing (Kress & Hoffman, 2008) may be helpful in encouraging individuals to recognise their ambivalent cognitions, emotions, and desires (Kress & Hoffman, 2008).

Lastly, it is important to recognise that ambivalence exists not only in self-injurious behaviours, but also in separate but related experiences that may shift ambivalence toward self-injurious behaviour specifically. Nock and Prinstein, (2005) identified that most adolescents who self-injure contemplate engaging in the behaviour for less than a few minutes before each incident. It is thought that internal and external events may be at play, such as adverse emotions and social influences, rather than long term decision-making around the behaviour itself. Resolving ambivalence in these areas may contribute to a reduction in ambivalence toward NSSI. This may be an important area consideration in treatment of the behaviour. In addition, it is important for families and loved ones to understand and recognise ambivalence. The validation of confusing emotions, understanding re-engagement of self-injury after a period of cessation, and both wanting and not wanting others to know of their self-injury may reduce frustration, and harness understanding for both the individual who is self-injuring, and onlookers/supporters. It would be highly beneficial to have information on ambivalence in resources developed to guide or support those who care for individuals who self-injure (e.g., ISSS, 2022).

Limitations and Future Directions

Our sample comprised individuals who had stopped self-injuring for anywhere between a few months to years, meaning the experiences shared were often retrospective and conveyed through a lens of recovery. Ambivalence may be experienced and described differently across various phases of one's "self-injury journey". For example, the ambivalence an individual experiences before they self-injure for the first time may be very

different to the ambivalence experienced during a period of extended distress. Additionally, some of our sample had stopped self-injuring many years prior to the interview. Certain details may be missing, as natural memory attrition may have occurred over time. Therefore, it may be beneficial for future research to explore experiences of ambivalence for those who are currently self-injuring, and may report fluctuations of ambivalence in the moment, rather than in retrospect.

While our study aimed to explore ambivalence among university students, our findings may not be transferrable to other demographics or settings. To gain a more comprehensive understanding of ambivalence in the context of self-injury, future research should seek to recruit more diverse samples, including adolescents, older adults, and non-student young adults, from a range of backgrounds (e.g., gender, race, region, socioeconomic status) and settings (e.g., communities, schools, treatment settings). This may provide further insight into the experience of NSSI ambivalence for individuals of different backgrounds and in different settings.

Conclusion

Ambivalence is a natural, integral part of decision making and change, and competing desires are universally experienced. Our study provides important insight into the experience of ambivalence in the context of self-injury and demonstrates the important role ambivalence has in the onset, maintenance, and cessation of NSSI. Our findings offer important theoretical implications, as well as implications for understanding self-injury as a behaviour and supporting individuals who self-injure.

Chapter 5

General Discussion

In the following chapter, I restate the primary objective of my thesis and explain how this objective was met through my program of research. I synthesise the key findings, followed by a discussion of the theoretical implications, clinical implications, and future directions. Finally, I discuss the limitations of the thesis, and provide a concluding statement. A commentary paper incorporating components of this General Discussion chapter has been published in the *Journal of Public Mental Health*.

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Attributions

Author	Contribution	Acknowledgement
Nicole Gray	Development of research question, collation and integration of theoretical components, manuscript preparation	
Penelope Hasking Mark Boyes	Assisted with development of research question, collation and integration of theoretical components, and manuscript preparation	

Overarching aim and summary of results

Non-suicidal self-injury (NSSI) is a complex behaviour involving the intentional damage to one's own body. NSSI is associated with a range of adverse outcomes including mental health disorders, shame, unwanted scarring, and stigma. While not suicidal in nature, the behaviour is linked to future suicidal thoughts and behaviours. Seemingly opposed to our innate drive for self-protection, individuals who engage in NSSI often report confusion over why they engage in the behaviour. Self-injury has a variety of functions including self-punishment, anti-dissociation, communication, and most commonly, to regulate unwanted affect. However, negative outcomes of NSSI may compete with the benefits of these

functions, leaving individuals confused and ambivalent about whether they want to engage in or cease the behaviour. The presence of competing desires is often overlooked by individuals, health professionals, and family or other loved ones. The aim of this thesis is to explore and understand experiences of ambivalence related to self-injury. This was achieved in three studies outlined below.

In **Study 1** (*n* = 374), I explored incongruence between action and desire in the context of self-injury. Given many individuals continue to self-injure when they desire to stop, I assessed whether stopping (12-month cessation) was associated with the same factors as desire to stop the behaviour. Specifically, I assessed whether psychological distress, difficulties with emotion regulation, NSSI-related outcome expectancies, self-efficacy to resist NSSI, and a range of NSSI-related characteristics (e.g., functions, recency) were associated with *i)* stopping self-injury, and *ii)* desire to stop self-injury. Psychological distress, difficulties with emotion regulation, outcome expectancies, self-efficacy to resist NSSI, and intrapersonal functions all differentiated individuals who had stopped self-injuring from those who had not. However, these factors did not differentiate individuals who did and did not want to stop the behaviour. Additionally, of participants wanting to stop self-injuring, approximately half had self-injured in the 12 months prior. Of the participants who did not want to stop self-injuring, approximately 40% had not self-injured in the 12 months prior. This suggests that actioned behaviour does not necessarily reflect the individual's desire toward the behaviour; cessation and desire to stop should be assessed as separate constructs. Additionally, these findings suggest the factors associated with behavioural cessation are not the same factors associated with the desire to cease self-injuring. However, in this study, desire to cease self-injury was assessed as a binary no/yes response, which likely does not capture potential ambivalence in the desire stop (or not) self-injuring. Study 2 addressed this limitation using a multidimensional assessment of desire to cease self-injuring.

In **Study 2** (*n* = 224) I examined the desire to both stop and not stop self-injuring, and associations with a range of constructs. These constructs were informed by the Ambivalence Model and theoretical models of self-injury. Specifically, I aimed to test whether individuals with a history of NSSI could be categorised according to the profiles predicted by the Ambivalence Model (i.e., avoid, approach, indifferent, and ambivalent), and if so, whether these profiles differed across a range of theoretically-informed constructs. I measured ambivalence by assessing the extent to which participants wanted to engage in NSSI and the extent they did not want to engage in NSSI. A latent profile analysis extracted four profiles (avoid, moderately ambivalent, highly ambivalent, approach). These profiles differed in the

tendency to approach/avoid NSSI in the last year, as well as both engagement in, and desire to engage in, NSSI over the last year and month. Additionally, profile-related differences in personality, intrapersonal functions, reasons to stop NSSI, difficulties with emotion regulation, psychological distress, outcome expectancies, and self-efficacy to resist NSSI were evident. This study demonstrated that accounting for ambivalence in the desire to self-injure (or not) provided a more nuanced reflection of what differentiates those who want to, and those who do not want to, engage in the behaviour. While Studies 1 and 2 highlighted the importance of considering ambivalence in the context of self-injury, they did not the capture the potential impact that ambivalence may have on an individual's own unique lived experience. This was addressed in Study 3.

In **Study 3** (n = 31), I explored the lived experience of ambivalence in the context of self-injury. I conducted 31 interviews and analysed the data using reflexive thematic analysis. Five themes were developed through this process; *'Push and pull'* reflects the experience of ambivalence from the initial urge to self-injure through to proceeding the action of the behaviour; *'Internalising the perspectives of others'* reflects the internalised opinions of others, and how that impacts levels of ambivalence toward engaging in self-injury; *'Confusing feelings'* reflects the complexities of emotion felt while the individual either resists or acts on an urge to self-injure; *'Catalyst for recovery*' reflects how the participants recognised their ambivalence toward self-injury in aiding recovery from the behaviour; and *'Lingering ambivalence'* reflects remaining ambivalence and urges once the individual has stopped engaging in self-injury.

Key Findings

Key Finding One: Not everybody wants to stop self-injuring

Given that, as humans, we have an innate drive to avoid pain and protect ourselves from harm (Nock, 2010), it seems reasonable to assume that individuals who self-injure want to stop self-injuring. However, it was apparent across all three studies that there is a significant proportion of individuals who do not want to stop self-injuring. Of the participants with a lifetime history of NSSI in Study 1, 20% reported not wanting to stop, or that they did not want to stop during the time they were engaging in the behaviour. In Study 2, 31 % of the entire sample were individuals who had a strong desire to self-injure, and little desire to not self-injure (the approach profile). This sentiment was also reflected in participants' lived experiences in Study 3, with some participants explaining that they often only wanted to stop once their self-injury had reached a point of severity that scared or disturbed them, i.e., they at some stage did not want to stop self-injuring. Accounts such as these are also present in the

literature (e.g., Tofthagen et al., 2017), where experiencing a loss of control over the severity of their self-injury scared the participants into wanting to stop the behaviour.

We know that behaviour does not always reflect the intention of an individual (Rhodes & de Bruijn 2013). Additionally, there is some evidence to suggest that stronger desire towards a goal strengthens the likelihood of engaging in an intended behaviour (Prestwitch et al., 2008). Other research on smoking behaviour suggests the inclusion of desire as a predictor in the theory of planned behaviour model (Kovac & Rose, 2011). As it stands, the outcome variable in current theoretical models of NSSI focuses primarily on the likelihood of engaging in the behaviour. For example, the cognitive emotional model (Hasking et al., 2015), the emotional cascade model (Selby & Joiner, 2009), the integrated theoretical model of the development and maintenance of self-injury (Nock, 2010), benefits and barriers model (Hooley & Franklin, 2007), and the experiential avoidance model of deliberate self-harm (Chapman et al., 2006) all include NSSI behaviours as an outcome variable. For future research, it may be beneficial to develop theoretical models that include desire to engage in or not engage in the NSSI, or integrate desire into current models of NSSI. We can then explore the factors that are associated with the desire to stop self-injuring, enhancing our knowledge on how to safely support individuals who do not wish to stop the behaviour.

Knowing that a considerable number of individuals do not want to stop self-injuring poses an important question; what are the treatment goals for these individuals? Supporting an individual who self-injures can be emotionally taxing for both families and health professionals, particularly if they are witnessing repetitive self-injury with no apparent change (Arbuthnott & Lewis, 2015; Mackay & Barrowclough, 2005; Saunders et al., 2012; Whitlock et al., 2013). Intrusiveness and the violation of rights over one's body can be a catalyst for shame, which is known to perpetuate further self-injury (Mahtani et al., 2019). For individuals who self-injure, control and impatience from others to cease the behaviour may increase the frequency or severity of NSSI, particularly if conflict arises (Waals et al., 2018; Wang et al., 2007; Wang et al., 2022). Additionally, the transtheoretical model suggests that an individual must be ready to change for intervention to be most beneficial (Grunberg & Lewis, 2015; Prochaska et al., 1994). Frequently cited reasons for the cessation of NSSI include independence and autonomy for adult populations (Shaw et al., 2006; Buser et al., 2013), and emotional validation, open communication, and support for adolescents (Adrian et al., 2018; Arbuthnott & Lewis, 2015). It remains important to understand that ambivalence shifts over time, and the individual may be ready for change of their own volition. Perhaps harm reduction strategies (Preston & West, 2021) whereby negative

outcomes are reduced, and safer practices are encouraged (e.g., education on sterilising equipment, first aid for wound care) would be a useful treatment option for those who do not want to stop engaging in NSSI. Harm reduction practices such as these have proven beneficial in other fields, such as alcohol use (Charlet & Heinz, 2017), cannabis use (Lau et al., 2015), and opiod use (Sordo et al., 2017), and may be beneficial in the area of NSSI. It may be beneficial to conduct further research focusing on the needs of individuals who do not wish to stop self-injuring, to determine best practice and areas where support is needed.

Key Finding Two: The Ambivalence Model of Craving can be applied to NSSI

Ambivalence as a construct of competing desires has previously been observable in the context of NSSI (Grunberg & Lewis, 2015; Kelada et al., 2017; Kress & Hoffman, 2008; Shaw, 2006; Tan et al., 2019). In Study 1, I determined that individuals both with and without a history of NSSI felt ambivalent toward the behaviour. In Study 2 I determined that levels of wanting to and not wanting to self-injure, in those with a history of self-injury could be grouped into 4 distinct profiles (avoid, highly ambivalent, moderately ambivalent, approach). Additionally, as per the Ambivalence Model of Craving (Breiner et al., 1999), there were differences between profiles of ambivalence on a range of psychological, cognitive, and emotional constructs, as well as NSSI characteristics, and incentives toward engaging/not engaging in NSSI. These constructs were chosen both from the Ambivalence Model of Craving (Breiner et al., 1999), and cognitive emotional models of NSSI (tested in Study 1; Hasking et al., 2015). My results demonstrated multiple theoretically meaningful profile related differences across historical factors (e.g., personality, past re-enforcement, emotion regulation difficulties), immediate factors (incentives; reasons to self-injure; reasons to not self-injure), and cognitive factors (self-efficacy to resist NSSI, outcome expectancies). These results were further validated in the interviews from Study 3, where participants not only expressed their ambivalence toward self-injury, but also described ambivalence in their psychological wellbeing, cognitions, emotions, and reasons to engage in/not engage in NSSI. Together, this highlights the utility of ambivalence models in the context of NSSI.

An important key finding related to differences between groups is that when asking participants whether they wanted to stop self-injuring using binary no/yes (Study 1), there were few cognitive and emotional factors which differentiated those who wanted to stop, from those who did not want to stop self-injuring. However, once I allowed for wanting to stop *and* wanting to continue in Study 2, (i.e., ambivalence), these same variables (in addition to factors mapped onto the Ambivalence Model; Breiner et al., 1999) differentiated

individuals who wanted to stop, individuals who were moderately ambivalent about engaging, individuals who were highly ambivalent about engaging, and individuals who wanted to continue to self-injure. This comparison of the number of differentiating factors between Study 1 and Study 2 highlights the importance of accounting for ambivalence in NSSI research. When accounting for ambivalence as an outcome variable, we may detect more profile-related difference that may have important theoretical and practical implications. In future research, it may be beneficial to include ambivalence in theoretical models of NSSI, so that individuals who are ambivalent about their self-injury are included in analyses. Apart from furthering theoretical understanding, this could also assist researchers and health professionals in identifying treatment targets for ambivalent individuals, which may differ from the treatments provided for individuals who want to stop self-injury, and individuals who want to continue to self-injure.

Key Finding Three: Ambivalence is confusing and extends beyond just the behaviour

In Study 3 participants described the experience of ambivalence as confusing. For many participants, the idea of simultaneous competing desires, beliefs, or emotions was unrecognised, therefore difficult to understand how self-injury could make them feel better and worse at the same time. It is well established that ambivalence is a natural component of decision making and behavioural outcomes (Miller & Rose, 2015). However, without the recognition of ambivalence for those who self-injure, there may be a cyclical effect; the individual self-injures while aware that a part of them wishes not to, this leads to confusion over why they self-injured against their wishes. This confusion may reduce self-efficacy and increase shame, which may lead to further self-injury.

The confusion over ambivalent experiences may also have interpersonal impacts. As mentioned, experiencing ambivalence may manifest in seemingly contradictory behaviours versus expressed desire. For example, an individual who expresses a strong desire to stop self-injuring may continue to engage in the behaviour, despite the potential negative outcomes. Without the acknowledgement and understanding of ambivalence, or competing desires, the individual, supporting health professionals, family, and onlookers may become frustrated. Contempt or hostility may arise with supporters believing that the individual(s) are not serious about their recovery or are being dishonest or in “denial” about their intentions (Miller & Rose, 2015). Perhaps more importantly, the individual themselves may be confused by their own inconsistent thinking and conflicting behaviours (Tan et al., 2019). By self-

injuring when ambivalent, the individual may experience shame, and feel a failure for letting themselves and others down - all experiences reported by our participants in Study 3.

In Study 3, participants described their experiences of confusing ambivalence toward self-injurious behaviour, as well as in a range of contexts related to NSSI such as internalising others' perspectives, interpersonal relationships, conflicting emotions, help-seeking/disclosure, and recovery. For example, participants described emotions of relief and comfort, alongside disappointment and guilt as a result of their engagement in NSSI. This highlights that ambivalence extends beyond just the act(s) of self-injury, but also manifests in a range of contexts that are related to self-injury.

Findings from Study 2 indicated that individuals who were ambivalent over wanting to self-injure had less self-efficacy to resist self-injury, increased difficulty regulating emotions, and increased psychological distress compared to individuals who did not want to self-injure. Psychological and emotional distress is a hallmark feature of NSSI – the behaviour is associated with a significantly increased likelihood of engaging in future self-injury, suicidal thoughts and behaviours, as well as psychopathology in general (Andrews et al., 2013; Bentley et al., 2015; Kiekens et al., 2018; Whitlock et al., 2013). Through our findings, there is evidence that ambivalence is a confusing experience above and beyond self-injurious behaviours. Inter-related ambivalence surrounding emotions, relationships, self-perception, and disclosure appear to also be highly confusing, and speculatively, may contribute to the distress, reduced ability to regulate emotions, reduced self-efficacy, and continued self-injury identified in Study 2, and the wider literature. However, future research is clearly needed to explore this and further our understanding of ambivalence in the context of NSSI.

The findings from our studies are applicable to theoretical models such as the emotional cascade model (Selby & Joiner, 2009). Consistent with the model, participants from Study 3 described a cyclical cascade of negative cognition and emotion prior to engaging in self-injury. It is thought that the cascade is relieved when the individual engages in self-injury. Our findings from Study 3 showed that participants experienced multiple, competing sets of cognition/emotion, which may have occurred in a cascade. Applying examples from Study 3 participant responses; firstly, there may be an initial situation prompting confusing emotions (e.g., conflict with partners, peers, or family; stigma; poor academic performance). Ambivalence may be experienced in self-perception as they reconcile the views of others with their own. Further ambivalence may generate where they feel self-injury is deserved, alongside the competing belief that self-injury is unacceptable. The cascade (and ambivalence) may increase as confusing emotions rise, such as guilt for wanting to self-

injure, alongside hope that self-injury will relieve emotional distress. The cascade may continue with feeling a failure that they are having difficulty regulating the compounding, competing emotions. They may wish to reach out for help, alongside wishing to isolate out of fear of further criticism. This example of a cascade of ambivalence can be a conflicting and confusing experience for the individual. It is possible that for those who self-injure, multiple, opposing cascades occur from the initial triggering event, to the breaking of the cascade via self-injury. Further research could explore whether ambivalence adds to the cascade of emotion felt by those who self-injure, and identify ways to alleviate this experience to help reduce instances of self-injury.

My findings from Study 3 also suggest that ambivalence continues after acting on an urge to self-injure. For example, competing feelings of guilt and relief. This can also be a confusing experience as the individual tries to reconcile why they engaged in a behaviour they did not intend to engage in. The emotional cascade model may be an appropriate model to use when mapping out the multifaceted experience of ambivalence surrounding engagement in NSSI. Additionally, it may be important for practitioners and other health professionals to acknowledge that individuals who self-injure may be confused about their behaviour. In treatment, they may find it difficult to describe their experiences which may be multi-layered. Explaining ambivalence, and allowing space for competing emotions, cognitions, and desires across a variety of circumstances may reduce frustration and build rapport between health professionals and their clients, improving treatment outcomes (English et al., 2022; Gray et al., 2020; Lang, 2012; Tofthagen et al., 2017). According to two systematic reviews of systematic reviews, tools such as motivational interviewing, a technique used to guide individuals toward healthy behaviours, have been successful in the area of substance use (Frost et al., 2018; DiClemente et al., 2017) and may be useful in resolving ambivalence related to NSSI (Kress & Hoffman 2008). However, such approaches are best used with caution, as reminding the client of the benefits of NSSI may strengthen their desire to engage in the behaviour. In validating the reasons an individual self-injures, health professionals should be careful not to endorse the value of these reasons, but rather adopt a neutral position. This will likely promote autonomy in the clients' decisions, where they decide the value of their reasons for self-injury, re-evaluating when ready.

Key Finding Four: Acknowledging ambivalence helps in recovery

In Study 3, participants reported that an understanding of ambivalence assisted them in the recovery process of NSSI. It may be important for individuals who self-injure to

recognise and develop an understanding of ambivalence to provide clarity and self-compassion. Acknowledging ambivalence as a natural and necessary component of decision making in self-injury may reduce shame, as individuals understand re-engagement and continued urges as a product of natural ambivalence, rather than an indication of their "failure" or "weakness".

For some individuals, self-injurious behaviours decrease, or even stop altogether when adverse psychological experiences resolve, for example, when the intensity of depression, stress, or anxiety decreases (Buser et al., 2013; Shaw, 2006). Therefore, acquiring self-awareness, particularly in understanding the triggers that increase the desire to self-injure may also play a role in a reduction of the behaviour (Shaw, 2006). While ambivalence may be confusing and distressing, there have been reports where a conscious awareness of ambivalence is beneficial. In a study by Shaw (2006), one participant found it beneficial to embrace ambivalence, as it allowed self-injury to become an option. They described finding space during an urge to reflect upon engagement of self-injury as a choice, rather than inevitable during an urge. Alternatively, one participant in Shaw's (2006) study recognised that competing desires fluctuate; although they wanted to self-injure in one moment, they would sit with that emotion knowing it was an option at any time, without feeling the need to act upon the urge. In these circumstances, knowing that the desire to self-injure exists, but did not need to be immediately acted upon allowed the behaviour to be "easier to delay" (Shaw, 2006, p. 163), until not engaging became the norm. Perhaps accepting that there are competing desires allows more of a choice for the individual, rather than the stressful experience of resisting an intense desire to engage, particularly when enforced by others. Indeed, autonomy and independence are commonly cited reasons for cessation of self-injury (Buser et al., 2013; Shaw, 2006; Tofthagen et al., 2017). A combined understanding of ambivalence between health professionals, family, friends, and the individual themselves has the potential to improve rapport, increase self-compassion, and likely improve treatment outcomes (Gray et al., 2020; Lang, 2012; Mumme et al., 2017; Tofthagen et al., 2017). Although this is speculative and future research is required in this area.

Theoretical implications

As previously discussed, current theoretical models of NSSI illustrate pathways to the behaviour, without considering the desire to self-injure as a separate construct. Desire may be important to consider given the noted incongruence between intention and behaviour (Rhodes & de Bruijn 2013; Sheeran & Webb 2016). Broader health science research has indicated that when desire is strong, or ambivalence is low, the relationship between intention and

behaviour strengthens (Conner & Sparks, 2002; Prestwich et al., 2008). Conversely, the experience of ambivalence is associated with weaker intention-behaviour relationships. That is, the higher ambivalence, the less likely an individual is to carry out their behavioural intentions (Conner & Sparks, 2002; Costarelli & Colloca, 2007; Sparks et al., 2004). In future research, it may be beneficial to include ambivalence in our theoretical models of NSSI. In doing so, we can pinpoint treatment targets toward the individuals' moderating desires, rather than managing the factors associated with actual engagement. Moreover, researchers and health professionals could use such models to identify ambivalence specific treatment targets, and theoretically understand which factors are contributing to individuals' experience of ambivalence.

The Ambivalence Model may be useful when used in conjunction with other models. For example, descriptions of the transtheoretical model of change (Kress & Hoffman, 2008; Norcross et al., 2011; Prochaska et al., 1994) suggest that individuals become ambivalent about their change in behaviour during the early contemplation stage. Utilising the Ambivalence Model, as demonstrated in Study 2, could identify levels of ambivalence in profiles, and readiness to change, along with specific treatment targets associated with each profile. Future research could also expand on the findings from Study 2 by determining whether different profiles of ambivalence exist in individuals currently self-injuring. Further research could add to this to determine which factors differentiate the identified profiles, highlighting person-centred treatment targets across various levels of ambivalence toward self-injury. The Ambivalence Model could also be utilised to explore whether profiles of ambivalence are useful in predicting outcomes over time. For example, whether individuals high in ambivalence toward NSSI can reduce their ambivalence over time, and whether associated factors (e.g., NSSI characteristics, self-efficacy, psychological distress) alter with changes in ambivalence. Other research could more extensively explore the gap between desire and behaviour in those currently self-injuring by examining the association between profiles of current ambivalence toward self-injury, and recent (last month/12 month) self-injurious behaviours. Additionally, it may be of benefit for theoretical models such as these to explore the experiences of ambivalence after the act of self-injury. Given that models such as the cognitive emotional model of NSSI (Hasking et al., 2017) highlight the importance of anticipated outcomes (outcome expectancies) in predicting self-injurious behaviour (Hasking & Boyes, 2017; Hasking & Rose, 2016), perhaps models that explore ambivalent cognitions and emotions after self-injury would be beneficial. For example, to determine whether

increased ambivalence in cognitions (e.g., competing beliefs about self-injury/expectancies) is associated with a greater desire to self-injure.

Applied implications

The applied implications of my research are relevant across multiple contexts. In the following paragraphs I cover the following: *i)* How my findings may be applied when supporting an individual through disclosure of their self-injury. *ii)* ways to improving health professional-client rapport while supporting ambivalent individuals during the recovery process. *iii)* Suggestions for family members who may feel frustration/helplessness when a loved one continues to self-injure.

Recognising ambivalence may support safe disclosure

In my research I found that ambivalence occurred not only around self-injurious behaviour, but also manifested in social relationships. Individuals reported that the influence of others' opinions shifted their ambivalence around wanting or not wanting to self-injure. This has implications for developing therapeutic relationships that support safe disclosure experiences. Given the significant stigma associated with self-injury, some individuals who self-injure may not only be ambivalent about the behaviour but may also be ambivalent about disclosing their self-injury (Staniland et al., 2020). This was a central component of the theme *Internalising the perspectives of others* in Study 3. Disclosure may be a first step in securing support, from loved ones or health professionals (Hasking et al., 2015; Kelada et al., 2017; Park & Ammerman, 2020; Simone & Hamza, 2020). Disclosure to health professionals in particular may be beneficial, and associated with stress reduction, social support, psychological growth, and resilience (Simone & Hamza, 2020). Conversely, disclosure may lead to further harm including potential prejudice, and possible further self-injury (Simone & Hamza, 2020). The anticipation of being labelled mentally unwell, attention seeking, or treated poorly is a significant barrier to disclosure (Staniland et al., 2020). Moreover, adopting an identity embedded in a stigmatised group can harm one's psychological well-being (Rosenrot & Lewis, 2020; Simone & Hamza, 2020). As such, individuals may experience ambivalence about seeking professional support. Even individuals seeking professional support for other mental health concerns may be reluctant to disclose their self-injury in therapy; only 8.9% disclose their self-injury to a mental health professional (Whitlock et al., 2011). For those who do choose to seek help, ambivalence about ceasing NSSI and its potential for success may continue, impacting the relationship between themselves and the treating clinician (MacKay & Barroclough, 2005; Saunders et al., 2012).

Recognising ambivalence may improve rapport in client-clinician relationships

As in all health professions, positive rapport between the client and the treating health professional is important in producing the best possible outcomes (English et al., 2022; Paley & Lawton., 2001). Ensuring positive rapport from a health professional standpoint can include empathetic listening, showing concern, creating mutual trust, and ensuring approachability (English et al., 2022). Recognition by health professionals that ambivalence manifests both during self-injury and in self injury related experiences may assist to reduce client/clinician tension. Some clinicians and other health professionals perceive those who self-injure to be time consuming, with illegitimate reasons for needing care, and have reported feelings of irritation, anger, frustration, helplessness, failure, anxiety, fear, and insecurity (Long, 2018; Cook et al., 2004; Sandy & Shaw, 2012; Saunders et al., 2012). Clinicians may exhibit hostile reactions in response to these emotional experiences, which is likely to diminish trust between the client and clinician (Long, 2018). In particular, repetitive self-injury increases distress for health professionals, as they see continuing behaviour with no apparent change (MacKay & Barroclough, 2005; Saunders et al., 2012). This may also damage rapport between clinicians and their clients; as feelings of hope and optimism are reduced in clinical staff, so too are helping behaviours, resulting in clients feeling unsupported (MacKay & Barroclough, 2005; Wadman et al., 2018). Individuals who engage in self-injury may internalise these attitudes and beliefs, increasing shame and self-criticism (Staniland et al., 2020). This is perhaps where ambivalence is most important to consider. Both the frustration felt among health professionals, and the shame felt by clients are understandable reactions when the behaviour is viewed solely in the context of long-term consequences (e.g., scarring, social isolation). Adopting a more complete, realistic understanding of the experience, to acknowledge immediate benefits for those who self-injure (e.g., emotional relief), may validate the client, reduce frustration among clinicians, and allow space for more balanced communication around treatment (Hasking et al., 2019).

Re-engagement after abstinence and ongoing urges and what to do

Across each of my studies I found that cessation of self-injurious behaviours does not always represent a desire to stop the behaviour. In Study 1 and Study 2, individuals who reported wanting to stop had self-injured recently, and individuals who did not want to stop had a period of cessation for 12 months or more. Individuals in Study 3 clearly described this experience as re-engagement after a period of cessation, or ongoing urges despite not wanting to self-injure anymore. Continued urges, re-engagement, and fluctuations in ambivalence after cessation appear to be a common and normal experience.

Research examining self-injury urges suggest that the majority of those who self-injure attempt to resist and urge (Klonsky & Glenn, 2008). In line with our findings from Study 3, Turner and colleagues (2019) found that urges to self-injure may be experienced as fleeting thoughts, persistent thoughts, or intense urges. In this study of young adults (18-35 years) who had engaged in self-injury in the last year, fleeting thoughts and persistent thoughts were resisted the majority of the time (76% and 63% of the days they occurred respectively), while intense urges were resisted under half the time (42% of the days they occurred; Turner et al., 2018). It appears that while urges to self-injure may be more difficult to resist for some compared to others, urges often do not lead to enacted self-injury. Hepp and colleagues (2021) identified that urges to self-injure are most often felt during high negative affect, and when experiencing rejection. Additionally, negative affect increased prior to an urge, with highest levels during the urge, and a decline post-urge. Despite urges occurring more often than self-injurious behaviours, the emotional discomfort felt by an individual during a resisted urge should not be minimised. Urges remain an antecedent to self-injurious behaviours, and may be emotionally distressing irrespective of whether they are resisted or not.

Research into behavioural cessation of various behaviours (e.g., alcohol use, drug use, smoking, disordered eating, sex offenses) highlights the existence of the abstinence violation effect (Larimer et al., 2004; Steckler et al., 2013). The effect refers to the cognitive, emotional, and behavioural experience for an individual who has re-engaged in a behaviour after a sustained period of abstinence (lapse). Breaking a period of abstinence, when the goal was continued abstinence may elicit feelings of shame, self-blame, loss of control, and reductions in self-efficacy to refrain from the behaviour ongoing (Steckler et al., 2013). The theory posits that an individual who has lapsed will experience cognitive dissonance over their actions vs intended actions. For example, in the context of alcohol use an individual may recognise that they drank alcohol, despite their goal for abstinence. To reduce their dissonance, they will attribute the violation to either internal, stable factors (e.g., lack of willpower, personal weakness, unmanageable disease), or to external, flexible, local factors (e.g., strong temptation, situational cues, social pressure). Those who attribute the violation to internal factors are more likely to experience guilt, shame, or a sense of failure. These individuals are more likely to continue drinking (or their relevant behaviour) due to their perceived inability to abstain, or to avoid the negative emotions arising from the initial lapse. Conversely, those who attribute the violation to a momentary inability to cope in a high risk situation are more likely to learn from the experience, obtain stronger coping strategies, and

return to a goal for abstinence (Larimer et al., 2004; Steckler et al., 2013). This theory may be applicable to NSSI re-engagement after a period of cessation. My research suggests that many individuals who engage in NSSI have a competing desire not to. This experience was detailed in Study 3, where participants described the feelings of shame and guilt that accompanied re-engagement in NSSI, especially after a period of cessation. In line with the abstinence violation effect, these individuals may be experiencing cognitive dissonance over engaging in NSSI while they had a desire not to, and attributing their re-engagement to internal failure rather than an external high-risk circumstance. Indeed, participants in study 3 reported that recognising ambivalence as a cognitive conflict, and being more kind to themselves in the moment of this conflict was a pathway to recovery from NSSI. Health professionals may assist individuals who wish to stop self-injuring by working through ambivalence to reduce uncomfortable cognitive dissonance (e.g., "I violated my goal because I wanted two opposing things at once, x and y"). Here, treatment approaches such as motivational interviewing may be used to identify competing advantages and disadvantages of engaging in NSSI, strengthen the reasons for change, and identify and prepare for any potential barriers to cessation. Together, this may divert the client from the self-blame and criticism which may lead to continued NSSI, and direct those who choose cessation of NSSI, toward their intended goal.

Recent research in the suicide field has recognised the important distinction between suicidal ideation, and suicidal behaviours. The majority of individuals who think about suicide will not engage in suicidal behaviours (Klonsky & May, 2015; Van Orden et al., 2010). Research suggests that commonly cited risk-factors to suicide (e.g., mental illness, impulsivity) are contributors to suicidal ideation, and do not sufficiently explain the pathway from suicide ideation to suicide attempt (Klonsky & May 2015). Ideation-to-action frameworks aim to differentiate these two experiences. For example, The Interpersonal Theory of Suicide (Van Orden et al., 2010) suggests that an individual may have a desire for suicide, but the risk of suicide ideation to attempt is increased when they are also experiencing social disconnection. Van Orden and colleagues (2010) proposed three interpersonal constructs that may contribute to suicidal behaviour: perceived burdensomeness, thwarted belongingness, and capability for suicide. Perceived burdensomeness refers to a person's belief that they are a burden on those who know them, or to the wider society. This can lead to the belief that their death may relieve the burden for others, contributing to suicidal behaviour. Thwarted belongingness refers to a feeling of disconnection from others can arise from loneliness or a lack of meaningful relationships.

Lastly, capability for suicide refers to a lowered fear and desensitisation toward death, through repeated exposure to painful or traumatic experiences. The theory proposes that a combination of perceived burdensomeness and thwarted belongingness can lead to feelings of pain and hopelessness, which can drive a desire for suicide - the addition of capability for suicide can bring an individual from desire, to actioned suicidal behaviour. The Motivational–Volitional Theory of Suicidal Behavior (O'Connor & Kirtley, 2018) adds to this theory by suggesting additional moderating factors that may increase the risk of suicidal behaviours, including pain sensitivity, access to means for suicide, impulsivity, and mental imagery. Klonsky and May (2015) propose a similar Three Step Model, where experiences of pain and hopelessness may lead to a desire for suicide, though harbouring meaningful connections can serve as a protective factor against suicidal behaviours. Meaningful connections refer to relationships, projects, or any other purpose for living (Klonsky & May, 2015). NSSI is thought to be a mechanism to acquired capability for suicide, as individuals who engage in suicidal behaviours have a reduced aversion to physical pain/and or damage (May & Victor, 2017).

Relatedly, one aspect of my research is the distinction between experiencing an urge to self-injure without acting on it, and acting on the urge by engaging in NSSI. In a study by Klonsky and Glenn (2008), individuals who experienced a desire to self-injure reported the most helpful behaviours to resist the urge. Consistent with the Three step model by Klonsky and May (2015), the most helpful prevention methods enhanced connectedness to others or themselves. For example, individuals who have resisted urges to self-injure report some of the most beneficial strategies to include; being around friends, talking to someone about how they feel, writing about how they feel, and finding someone who is understanding (Klonsky & Glenn, 2008). In line with the Motivational–Volitional theory of Suicidal Behaviour (O'Connor & Kirtley, 2018), removing physical access to means, and using mental imagery associated with pain sensitivity (e.g., thinking about how much it will hurt) were also reported as helpful strategies to resist urges to self-injure (Klonsky & Glenn, 2008). It may be useful to adopt frameworks similar to those in the suicide literature, suggesting that factors that contribute to an urge to self-injure may not be the same factors that lead an individual from urge to action. Importantly, ambivalence is likely to be a contributing factor in whether an urge to self-injure is actioned. Teaching individuals who experience ongoing urges to recognise and work through their ambivalence (e.g., through motivational interviewing, analysis of personal values, future oriented thinking) may assist in reaching cessation goals.

I also suggest that it would be beneficial for individuals who are aiming for cessation of self-injury to know that urges are a normal part of recovery, in an effort to reduce shame or feelings of failure. Some individuals have noted that when they re-engaged in self-injury following periods of abstinence, helpful health professionals understood the pain rather than condemning the behaviour as a failure (Tofthagen et al., 2017). Clients recall being given space and allowed to experience setbacks during the "prolonged process" (Tofthagen et al., 2017, p.2314) of recovery. The acceptance of ambivalence led to valuable therapeutic relationships during the recovery process. Through this alliance, clients learned to also accept support in their outside relationships, eliciting long term treatment benefits (Tofthagen et al., 2017).

A recognition that ambivalence is common may allow space for clients to self-identify disadvantages of continuing to self-injure and advantages of reducing the behaviour; reducing shame, ambivalence, and building self-efficacy to resist urges to self-injure. Viewing ongoing self-injury through a framework of ambivalence, rather than relapse or failure, may reduce frustration, increase empathy, and promote further help-seeking behaviour in the client. Shifting focus from engagement in the behaviour, to the subjective experience of the individual, may help resolve ambivalent cognitions (Lewis & Hasking 2020). My findings, together with the supporting literature suggest that shifts in ambivalence toward wanting to self-injure occur and are a component of the on-going recovery process. A health professional may approach this by asking their client about any recent urges, explore what was done to resist urges, and emphasise the success of the client to build self-efficacy to resist self-injury (Lewis & Hasking, 2020). In times that the client was unable to resist the urge, it may be beneficial for health professionals to normalise re-engagement as a part of recovery, validate the client to harbour self-acceptance, and discuss what could be done differently when experiencing an urge to self-injure. Goals may be re-set based on the client's experiences. Through monitoring this process, health professionals can guide their clients to maintain realistic targets involved in the recovery process (Lewis & Hasking, 2020).

Family frustration

In Study 3, participants described their experiences of ambivalence, where they wanted to self-injure for emotional relief, yet did not want to self-injure over fear of hurting a loved one. Desiring to cease NSSI over the fear of hurting others is reported in the NSSI literature (Deliberto & Nock, 2008; Hambleton et al., 2020). Discovering that a family member engages in self-injury may be distressing for the individual supporting them (Arbuthnott & Lewis, 2015: Kelada et al., 2016b). Previously, research has identified both positive and

negative reactions from family members or close peers (Arbuthnott & Lewis, 2015: Kelada et al., 2016b; Rosenrot & Lewis, 2018). While not always the case, loved ones of individuals who self-injure may experience severe psychological distress themselves, including anger, guilt, disappointment, depression, and anxiety (Fu et al., 2020; Kelada et al., 2016a; Kelada et al., 2016b). Desperate attempts at getting the individual to stop are understandable; family members may become inpatient and frustrated as their loved one continues to self-injure, particularly when the individual has expressed a legitimate desire to cease the behaviour. While control, force, and ultimatums may feel like a useful approach in encouraging a family member to stop, research suggests that judgement, control, force, ultimatums or anger regarding their self-injury can intensify their desire to engage in the behaviour (Kelada et al., 2016b). By empathising with the ambivalent experience during their loved one's recovery, stress and hostility may resolve, reducing self-injurious behaviour. Positive relational experiences are known to decrease the desire to self-injure (Buser et al., 2013; Kelada et al., 2016a). Shaw and colleagues (2006) found that participants reported a need to be seen and heard by their families. Individuals who self-injured benefited from having companions available, emotionally validating, and active in providing support (e.g., assisting with strategies rather than merely suggesting them; Buser et al., 2013). Given that self-injury is often engaged in as a means of communication when language feels insufficient, affording that need through other means, such as openly discussing periods of high ambivalence, may reduce both ambivalence, and the desire to self-injure.

Limitations of the research program

The limitations of this research are included in each chapter, primarily the use of cross-sectional data in all 3 studies. Despite providing valuable information about the relationships between variables in Study 1 and 2, we cannot assume causality or the temporal nature of these relationships. It would be beneficial to implement longitudinal study designs, or ecological momentary assessment (EMA) methods to examine the nature of these relationships over time. This would allow us to explore both how ambivalence may shift, as well as the factors associated with such shifts in real-time. Additionally, such designs could better capture the temporal experience of ambivalence. Prior research (e.g., Kress & Hoffman, 2008; Grunberg & Lewis, 2015; Miller & Rose, 2015) together with participant experiences reported in Study 3 suggest that levels of ambivalence change over time. Due to the often quick shifts in ambivalence, it can be difficult to measure using survey designs. Although levels of ambivalence were well captured on general scale, EMA studies could explore the real-time experiences of ambivalence. Perhaps capturing ambivalence in the

moment of resisted, or unresisted urges to self-injure. This would provide information on the factors that contribute to shifts in ambivalence in real-world settings.

Additionally, although university students are of interest given their increased rates of NSSI (Swannell et al., 2014) and the negative outcomes of the behaviour (Kiekens et al., 2016), the generalisability of our findings to other populations is an unavoidable limitation. It is important to determine whether our findings differ in populations other than university students. It would be beneficial to direct future research toward the general community to determine whether my findings may be generalised across populations. Additionally, future research could examine ambivalence in populations who are currently undergoing treatment for NSSI, as rates of NSSI are higher, and perhaps more recent (hours – days vs months) in populations undergoing mental health treatment than those of community populations. Cognitive and emotional experiences associated with NSSI may also be different in treatment populations compared to the general community. It is important to look at ambivalence and the associated factors in the moment of self-injurious behaviours. By doing so, we could more deeply explore experiences of ambivalence during urges to self-injure, and identify treatment targets during critical periods of self-injury. Given that the initial onset of NSSI occurs in adolescence, it may be useful to understand ambivalence toward NSSI in the adolescent population. It may be of benefit to explore the trajectories of ambivalence over time in adolescent populations to understand shifts in desire from onset of NSSI, through to more habitual NSSI (or recovery), and the cognitive/emotional/interpersonal factors associated with these shifts. Ecological momentary assessments could be conducted alongside treatment methods such as motivational interviewing (Kamen, 2009; Kress & Hoffman, 2008) and decisional balance work (Grunberg & Lewis, 2015). This could provide insight into the experiences of ambivalence, including fluctuations and ongoing urges, as well as the efficacy of motivational treatment techniques in treatment of NSSI.

Conclusion

Together, my three studies indicate that ambivalence is a common and confusing experience for many who self-injure and is also an integral component of the recovery process. Levels of ambivalence may be different for individuals who have a history of self-injury, and this may be due to the time since last engaging in the behaviour, perceived level of recovery, a range of cognitive and emotional factors, interpersonal experiences, and recognition of ambivalence itself. My findings suggest that individual differences in emotion, cognition, motivation, level of risk, and desire to change may not be associated with unidimensional assessments of desire to cease self-injuring; however, these theoretically-informed constructs do appear salient if

we consider ambivalence in the desire to self-injure. Importantly, the recognition of competing desires may reduce the confusion that comes with engaging in a seemingly counterintuitive behaviour, often incongruent to one's own perceived desires. This research highlights the impact of competing processes, not only in NSSI, but in other areas of an individual's life that may then shift ambivalence toward self-injurious behaviours themselves. Practically, recognising ambivalence may provide more accurate treatment targets for the individual, and health professionals may benefit from using a person-centred approach to recovery from self-injury, which considers desire to stop as well as behaviour. I hope my research will educate researchers, health professionals, families, and individuals with lived experience, on the important role ambivalence plays before, during, and after the decision to engage in NSSI, and during the recovery process. Specifically, I aim for an understanding that ambivalence is an entirely natural component of any decision-making process, regardless of our own, or societies views on the behaviour in question. The findings from this research indicate that cessation of a NSSI is not necessarily as simple as wanting to cease the behaviour. In addition, continuing to engage in NSSI is not necessarily an indication that the individual wants to continue. Most importantly, if an individual expresses a desire to stop, but continues to engage in NSSI, it is not an indication of weakness or failure. Ambivalence exists, perceived needs versus wants may clash, what feels beneficial in one moment may not feel the beneficial in another moment, and our decisions may be of benefit and detriment simultaneously when viewing them from different directions. Becoming aware of this in the context of self-injurious behaviours will hopefully aid a reduction in stigma from others, minimise self-stigma, and prevent shame during the potentially ongoing, non-linear recovery process from either NSSI itself, or the negative impacts that may be associated with the behaviour.

References

Adler, P.A., & Adler, P. (2007). The demedicalization of self-injury: From psychopathology to sociological deviance. *Journal of Contemporary Ethnography 36*, 537-570. https://doi.org/10.1177/0891241607301968

Andrews, T., Martin, G., Hasking, P., & Page, A. (2013). Predictors of continuation and cessation of nonsuicidal self-injury. *Journal of Adolescent Health*, *53*(1), 40-46. https://doi.org/10.1016/j.jadohealth.2013.01.009

Ammerman, B.A., Jacobucci, R., Kleiman, E.M., Muehlenkamp, J.J. and McCloskey, M.S. (2017), Development and validation of empirically derived frequency criteria for NSSI disorder using exploratory data mining. *Psychological Assessment, 29*, 221, https://doi.org/10.1037/pas0000334.

Arbuthnott, A. E., & Lewis, S. P. (2015). Parents of youth who self-injure: A review of the literature and implications for mental health professionals. *Child and Adolescent Psychiatry and Mental Health, 9*, 1-20. https://doi.org/10.1186/s13034-015-0066-3

Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British Journal of Social Psychology 40,* 471-499. https://doi.org/10.1348/014466601164939

Asarnow, J. R., Porta, G., Spirito, A., Emslie, G., Clarke, G., Wagner, K. D., ... & Brent, D. A. (2011). Suicide attempts and nonsuicidal self-injury in the treatment of resistant depression in adolescents: findings from the TORDIA study. *Journal of the American Academy of Child & Adolescent Psychiatry*, *50*(8), 772-781. https://doi.org/ 10.1016/j.jaac.2011.04.003

Barkby, H., Dickson, J. M., Roper, L., & Field, M. (2012). To approach or avoid? Automatic and self-reported motivational tendencies in alcohol dependence. *Alcoholism, Clinical and Experimental Research 36*, 361‐368. https://doi.org/10.1111/j.1530-0277.2011.01620.x

Beck, A. T. & Steer, R. A. (1987). Manual for the revised Beck Depression Inventory. The Psychological Corporation: San Antonio, Tex.

Beck, A. T. & Steer, R. A. (1990). Manual for the Beck Anxiety Inventory. The Psychological Corporation: San Antonio, Tex.

Bentley, K. H., Cassiello-Robbins, C. F., Vittorio, L., Sauer-Zavala, S., & Barlow, D. H. (2015). The association between nonsuicidal self-injury and the emotional disorders: A

meta-analytic review. *Clinical Psychology Review*, *37*, 72-88. http://dx.doi.org/10.1016/j.cpr.2015.02.006

Boyes, M. E., Wilmot, A., & Hasking, P. A. (2020). Nonsuicidal self-injury-related differences in the experience of negative and positive emotion. *Suicide and Life-Threatening Behavior*, *50*, 437-448. https://doi.org/10.1111/sltb.12599

Braun, V. & V. Clarke. 2022. *Thematic Analysis: A Practical Guide.* Sage Publications

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology 3,* 77-101. https://doi.org/10.1191/1478088706qp063oa

Braun, V., & Clarke, V. (2013). *Successful Qualitative Research: A Practical Guide for Beginners.* Sage Publications.

Breiner, M. J., Stritzke, W. G., & Lang, A. R. (1999). Approaching avoidance: A step essential to the understanding of craving. *Alcohol Research*, *23*(3), 197.

Bresin, K. (2014). Five indices of emotion regulation in participants with a history of nonsuicidal self-injury: A daily diary study. *Behavior Therapy*, *45*(1), 56-66. https://doi.org/10.1016/j.beth.2013.09.005

Bresin, K., Gordon, K. H., Bender, T. W., Gordon, L. J., & Joiner, T. E. (2010). No pain, no change: Reductions in prior negative affect following physical pain. *Motivation and Emotion, 34*(3), 280-287. https://doi.org/10.1007/s11031-010-9168-7

Bresin, K., & Mekawi, Y. (2020). Different ways to drown out the pain: a meta-analysis of the association between nonsuicidal self-injury and alcohol use. *Archives of Suicide Research*, 1-22. https://doi.org/10.1080/13811118.2020.1802378

Bresin, K., & Schoenleber, M. (2015). Gender differences in the prevalence of nonsuicidal self-injury: A meta-analysis. *Clinical Psychology Review*, *38*, 55-64. https://doi.org/10.1016/j.cpr.2015.02.009

Briere, J., & Gil, E. (1998). Self-mutilation in clinical and general population samples: Prevalence, correlates, and functions. *American Journal of Orthopsychiatry*, *68*(4), 609-620. https://doi.org/10.1037/h0080369

Brown, S. A., Williams, K., & Collins, A. (2007). Past and recent deliberate self-harm: Emotion and coping strategy differences. *Journal of Clinical Psychology*, *63*(9), 791-803. https://doi.org/10.1002/jclp.20380

Bruffaerts, R., Mortier, P., Kiekens, G., Auerbach, R. P., Cuijpers, P., Demyttenaere, K., Green, J. G., Nock, M. K., & Kessler, R. C. (2018). Mental health problems in college freshmen: Prevalence and academic functioning. *Journal of Affective Disorders*, *225*, 97-103. https://doi.org/10.1016/j.jad.2017.07.044

Buser, T. J., Pitchko, A., & Buser, J. K. (2013). Naturalistic recovery from nonsuicidal self-injury: a phenomenological inquiry. *Journal of Counseling & Development*, *92*(4), 438-446. https://doi.org/10.1002/j.1556-6676.2014.00170.x

Cartwright, F., & Stritzke, W. G. (2008). A multidimensional ambivalence model of chocolate craving: construct validity and associations with chocolate consumption and disordered eating. *Eating Behaviors*, *9*(1), 1-12. https://doi.org/10.1016/j.eatbeh.2007.01.006

Chapman, A. L., & Dixon-Gordon, K. L. (2007). Emotional antecedents and consequences of deliberate self-harm and suicide attempts. *Suicide and Life-Threatening Behavior, 37,* 543-552. https://doi.org/10.1521/suli.2007.37.5.543

Charlet, K., & Heinz, A. (2017). Harm reduction—a systematic review on effects of alcohol reduction on physical and mental symptoms. *Addiction Biology*, *22*, 1119-1159. https://doi.org/10.1111/adb.12414

Conner, M., & Sparks. P. (2002). Ambivalence and attitudes. *European Review of Social Psychology, 12,* 37-70. https://doi.org/10.1080/14792772143000012

Cook, S.H., Clancy, C. & Sanderson, S. (2004). Self-harm and suicide: care, interventions and policy. *Nursing Standard, 18,* 43, https://doi.org/10.7748/ns2004.07.18.43.43.c3642.

Costarelli, S., & Colloca, P. (2007). The moderation of ambivalence on attitude–intention relations as mediated by attitude importance. *European Journal of Social Psychology*, *37*, 923-933. https://doi.org/10.1002/ejsp.403

Cox, W. M., & Klinger, E. (1988). A motivational model of alcohol use. *Journal of Abnormal Psychology*, *97*(2), 168. https://doi.org/10.1037/0021-843X.97.2.168

Czyz, E. K., Bohnert, A. S., King, C. A., Price, A. M., Kleinberg, F., & Ilgen, M. A. (2014). Self-efficacy to avoid suicidal action: Factor structure and convergent validity among adults in substance use disorder treatment. *Suicide and Life-Threatening Behavior*, *44*(6), 698-709. https://doi.org/10.1111/sltb.12101

Dawkins, J. C., Hasking, P. A., & Boyes, M. E. (2019). Thoughts and beliefs about nonsuicidal self-injury: An application of social cognitive theory. *Journal of American College Health*, 1-7. https://doi.org/10.1080/07448481.2019.1679817

Dawkins, J. C., Hasking, P. A., & Boyes, M. E. (2022). Development and validation of a measure of self-efficacy to resist nonsuicidal self-Injury. *Journal of Psychopathology and Behavioral Assessment*, *44,* 511-526.

Deliberto, T. L., & Nock, M. K. (2008). An exploratory study of correlates, onset, and offset of non-suicidal self-injury. *Archives of Suicide Research*, *12*(3), 219-231. https://doi.org/10.1080/13811110802101096.

Dickson, J. M., Gately, C., & Field, M. (2013). Alcohol dependence is characterized by weak negative rather than strong positive implicit alcohol associations. *Psychopharmacology*, *228*, 603‑610. https://doi.org/10.1007/s00213-013-3066-0

DiClemente, C. C., Corno, C. M., Graydon, M. M., Wiprovnick, A. E., & Knoblach, D. J. (2017). Motivational interviewing, enhancement, and brief interventions over the last decade: A review of reviews of efficacy and effectiveness. *Psychology of Addictive Behaviors*, *31*, 862. https://doi.org/10.1037/ADB0000318

Donnellan, M. B., Oswald, F. L., Baird, B. M., & Lucas, R. E. (2006). The mini-IPIP scales: tiny-yet-effective measures of the Big Five factors of personality. *Psychological Assessment*, *18,* 192.

English, W., Gott, M., & Robinson, J. (2022). The meaning of rapport for patients, families, and healthcare professionals: A scoping review. *Patient Education and Counseling*, *105*, 2-14. https://doi.org/10.1016/j.pec.2021.06.003

Faries, M. D. (2016). Why we don't "just do it" understanding the intention-behavior gap in lifestyle medicine. *American Journal of Lifestyle Medicine*, *10*(5), 322-329. https://doi.org/10.1177/1559827616638017

Foti, R. J., Bray, B. C., Thompson, N. J., & Allgood, S. F. (2012). Know thy self, know thy leader: Contributions of a pattern-oriented approach to examining leader perceptions. *The Leadership Quarterly*, *23,* 702-717.

Fox, K. R., Toole, K. E., Franklin, J. C., & Hooley, J. M. (2017). Why does nonsuicidal self-injury improve mood? A preliminary test of three hypotheses. *Clinical Psychological Science*, *5*(1), 111-121. https://doi.org/10.1177/2167702616662270

Frost, H., Campbell, P., Maxwell, M., O'Carroll, R. E., Dombrowski, S. U., Williams, B., Cheyne, H., Coles, E., & Pollock, A. (2018). Effectiveness of motivational interviewing on adult behaviour change in health and social care settings: a systematic review of reviews. *PloS One*, *13*, https://doi.org/10.1371/journal.pone.0204890

Fu, X., Yang, J., Liao, X., Lin, J., Peng, Y., Shen, Y., Ou, J., Li, Y., & Chen, R. (2020). Parents' attitudes toward and experience of non-suicidal self-injury in adolescents: a qualitative study. *Frontiers in Psychiatry*, *11*, 651. https://doi.org/10.3389/fpsyt.2020.00651

Gandhi, A., Luyckx, K., Baetens, I., Kiekens, G., Sleuwaegen, E., Berens, A., Maitra, S., & Claes, L. (2018). Age of onset of non-suicidal self-injury in Dutch-speaking adolescents and emerging adults: An event history analysis of pooled data. *Comprehensive Psychiatry*, *80*, 170-178. https://doi.org/10.1016/j.comppsych.2017.10.007

Gelinas, B. L., & Wright, K. D. (2013). The cessation of deliberate self-harm in a university sample: The reasons, barriers, and strategies involved. *Archives of Suicide Research*, *17*(4), 373-386. https://doi.org/10.1080/13811118.2013.777003

Glenn, C. R., & Klonsky, E. D. (2011). One-year test-retest reliability of the Inventory of Statements About Self-Injury (ISAS). *Assessment*, *18*, 375-378. https://doi.org/10.1177/1073191111411669

Glenn, C. R., & Klonsky, E. D. (2013). Non-suicidal self-injury disorder: an empirical investigation in adolescent psychiatric patients. *Journal of Clinical Child & Adolescent Psychology*, *42*(4), 496-507. https://doi.org/10.1080/15374416.2013.794699

Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the difficulties in emotion regulation scale. *Journal of Psychopathology and Behavioral Assessment*, *26*(1), 41-54. https://doi.org/10.1023/B:JOBA.0000007455.08539.94

Gray, N., Hasking, P., & Boyes, M. E. (2021). The impact of ambivalence on recovery from non-suicidal self-injury: Considerations for health professionals. *Journal of Public Mental Health, 20,* 251-258. https://doi.org/10.1108/JPMH-07-2020-0093

Gray, N., Hasking, P., & Boyes, M. E. (2022). Cognitive and emotional factors associated with the desire to cease non-suicidal self-injury. *Journal of Clinical Psychology, 78*, 1896-1911. https://doi.org/10.1002/jclp.23336

Greeley, J. D., Swift, W., Prescott, J., & Heather, N. (1993). Reactivity to alcohol‐related cues in heavy and light drinkers. *Journal of Studies on Alcohol, 54,* 359‐368. https://doi.org/10.15288/jsa.1993.54.359

Grunberg, P. H., & Lewis, S. P. (2015). Self-injury and readiness to recover: Preliminary examination of components of the stages of change model. *Counselling Psychology Quarterly, 28*(4), 361-371. https://doi.org/10.1080/09515070.2014.998627

Halpin, S. A., & Duffy, N. M. (2020). Predictors of non-suicidal self-injury cessation in adults who self-injured during adolescence. *Journal of Affective Disorders Reports*, *1*, https://doi.org/10.1016/j.jadr.2020.100017

Hambleton, A. L., Hanstock, T. L., Halpin, S., & Dempsey, C. (2020). Initiation, meaning and cessation of self-harm: Australian adults' retrospective reflections and advice to adolescents who currently self-harm. *Counselling Psychology Quarterly*, 1-24. https://doi.org/10.1080/09515070.2020.1737509

Hamza, C. A., Stewart, S. L., & Willoughby, T. (2012). Examining the link between nonsuicidal self-injury and suicidal behavior: A review of the literature and an integrated model. *Clinical Psychology Review*, *32*(6), 482-495. https://doi.org/10.1016/j.cpr.2012.05.003

Hasking, P. (2017). Differentiating non-suicidal self-injury and risky drinking: a role for outcome expectancies and self-efficacy beliefs. *Prevention Science*, *18*(6), 694-703. https://doi.org/ 10.1007/s11121-017-0755-7

Hasking, P., & Boyes, M. (2017). The non-suicidal self-injury expectancy questionnaire: Factor structure and initial validation. *Clinical Psychologist*, *22*, 251-261. https://doi.org/10.1111/cp.12127

Hasking, P., & Claes, L. (2020). Transdiagnostic mechanisms involved in nonsuicidal self-injury, risky drinking and disordered eating: Impulsivity, emotion regulation and alexithymia. *Journal of American College Health*, *68*(6), 603-609. https://doi.org/10.1080/07448481.2019.1583661

Hasking, P., & Rose, A. (2016). A preliminary application of social cognitive theory to nonsuicidal self-injury. *Journal of Youth and Adolescence*, *45*(8), 1560-1574. https://doi.org/10.1007/s10964-016-0449-7

Hasking, P., Boyes, M., & Greves, S. (2018). Self-efficacy and emotionally dysregulated behaviour: An exploratory test of the role of emotion regulatory and behaviour-specific beliefs. *Psychiatry Research, 270,* 335-340. https://doi.org/10.1016/j.psychres.2018.09.045

Hasking, P., Tatnell, R. C., & Martin, G. (2015). Adolescents' reactions to participating in ethically sensitive research: A prospective self-report study. *Child and Adolescent Psychiatry and Mental Health, 9*(1), 39. https://doi.org/10.1186/s13034-015-0074-3

Hasking, P., Whitlock, J., Voon, D, & Rose, A. (2017). A cognitive-emotional model of NSSI: using emotion regulation and cognitive processes to explain why people self-injure, *Cognition and Emotion, 31,* 1543-1556. https://doi.org/10.1080/02699931.2016.1241219

Hepp, J., Carpenter, R. W., Freeman, L. K., Vebares, T. J., & Trull, T. J. (2021). The environmental, interpersonal, and affective context of nonsuicidal self-injury urges in

daily life. *Personality Disorders: Theory, Research, and Treatment*, *12*(1), 29. http://dx.doi.org/10.1037/per0000456.supp

Horgan, M., & Martin, G. (2016). Differences between current and past self-injurers: how and why do people stop?. *Archives of Suicide Research*, *20*(2), 142-152. https://doi.org/10.1080/13811118.2015.1004479

Hooley, J. M., & Franklin, J. C. (2018). Why do people hurt themselves? A new conceptual model of nonsuicidal self-injury. *Clinical Psychological Science*, *6*(3), 428-451. https://doi.org/10.1177/2167702617745641

International Society for the Study of Self-injury. (2018; 2022). What is self-injury? Retrieved from https://itriples.org/about-self-injury/what-is-self-injury.

Kaess, M., Hille, M., Parzer, P., Maser-Gluth, C., Resch, F., & Brunner, R. (2012). Alterations in the neuroendocrinological stress response to acute psychosocial stress in adolescents engaging in nonsuicidal self-injury. *Psychoneuroendocrinology*, *37*, 157-161. https://doi/org/10.1016/j.psyneuen.2011.05.009

Kamen, D. G. (2009). How can we stop our children from hurting themselves? Stages of change, motivational interviewing, and exposure therapy applications for non-suicidal self-injury in children and adolescents. *International Journal of Behavioral Consultation and Therapy*, *5*, 106. http://dx.doi.org/10.1037/h0100874

Kelada, L., Hasking, P., & Melvin, G. (2016a). The relationship between nonsuicidal self-injury and family functioning: adolescent and parent perspectives. *Journal of Marital and Family Therapy, 42*(3), 536-549. https://doi.org/10.1111/jmft.12150

Kelada, L., Hasking, P., Melvin, G., Whitlock, J., & Baetens, I. (2017). "I Do Want to Stop, At Least I Think I Do": an international comparison of recovery from nonsuicidal self-injury among young people. *Journal of Adolescent Research*, *33*, 416-441. https://doi.org/10.1177/0743558416684954

Kelada, L., Whitlock, J., Hasking, P., & Melvin, G. (2016b). Parents' experiences of nonsuicidal self-injury among adolescents and young adults. *Journal of child and Family Studies, 25*, 3403-3416. https://doi.org/10.1007/s10826-016-0496-4

Kessler, R. C., Andrews, G., Colpe, L. J., Hiripi, E., Mroczek, D. K., Normand, S. L., Walters, E.E., & Zaslavsky, A. M. (2002). Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychological Medicine*, *32,* 959-976.

Kiekens, G., Claes, L., Demyttenaere, K., Auerbach, R. P., Green, J. G., Kessler, R. C., Mortier, P., Nock, M. K., & Bruffaerts, R. (2016). Lifetime and 12-Month nonsuicidal

self-injury and academic performance in college freshmen. *Suicide and Life-Threatening Behavior, 46,* 563-576. https://doi.org/10.1111/sltb.12237

Kiekens, G., Hasking, P., Bruffaerts, R., Claes, L., Baetens, I., Boyes, M., Mortier, P., Demyttenaere, K., & Whitlock, J. (2017). What predicts ongoing nonsuicidal self-injury?: A comparison between persistent and ceased self-injury in emerging adults. *The Journal of Nervous and Mental Disease*, *205*, 762-770. https://doi.org/10.1097/NMD.0000000000000726

Kiekens, G., Hasking, P., Claes, L., Mortier, P., Auerbach, R. P., Boyes, M., Cuijpers. P., Demyttenaere, K., Green, J. G., Kessler, R. C., Nock, M. K., Bruffaerts, R. (2018). The DSM-5 non-suicidal self-injury disorder among incoming college students: Prevalence and associations with 12-month mental disorders and suicidal thoughts and behaviors." *Depression and Anxiety, 35*, 629-637. https://doi.org/10.1002/da.22754

Kiekens, G., Hasking, P., Claes, L., Boyes, M., Mortier, P., Auerbach, R. P., Cuijpers, P., Demyttenaere, K., Green, J.G., Kessler, R.C., Myin-Germeys, I., Nock, M.K., & Bruffaerts, R. (2019). Predicting the incidence of non-suicidal self-injury in college students. *European Psychiatry*, *59*, 44-51. https://doi.org/10.1016/j.eurpsy.2019.04.002

Klonsky, E. D. (2007). The functions of deliberate self-injury: A review of the evidence. *Clinical Psychology Review*, *27*(2), 226-239. https://doi.org/10.1016/j.cpr.2006.08.002

Klonsky, E. D. (2009). The functions of self-injury in young adults who cut themselves: Clarifying the evidence for affect regulation. *Psychiatry Research, 166*(2), 260-268. https://doi.org/10.1016/j.psychres.2008.02.008

Klonsky, E. D., & Glenn, C. R. (2008). Resisting urges to self-injure. *Behavioural and Cognitive Psychotherapy*, *36*(2), 211-220. https://doi.org/ 10.1017/S1352465808004128

Klonsky, E. D., & Glenn, C. R. (2009). Assessing the functions of non-suicidal self-injury: Psychometric properties of the Inventory of Statements About Self-injury (ISAS). *Journal of Psychopathology and Behavioral Assessment*, *31*, 215-219. https://doi.org/10.1007/s10862-008-9107-z

Klonsky, E. D., & May, A. M. (2015). The three-step theory (3ST): A new theory of suicide rooted in the "ideation-to-action" framework. *International Journal of Cognitive Therapy*, *8*(2), 114-129. https://doi.org/10.1521/ijct.2015.8.2.114

Klonsky, E. D., & Muehlenkamp, J. J. (2007). Self-injury: A research review for the practitioner. *Journal of Clinical Psychology*, *63*, 1045-1056. https://doi.org/10.1002/jclp.20412

Klonsky, E. D., & Olino, T. M. (2008). Identifying clinically distinct subgroups of self-injurers among young adults: a latent class analysis. *Journal of Consulting and Clinical Psychology*, *76*(1), 22. https://doi.org/10.1037/0022-006X.76.1.22

Klonsky, E. D., Victor, S. E., & Saffer, B. Y. (2014). Nonsuicidal self-injury: What we know, and what we need to know. *The Canadian Journal of Psychiatry*, *59*(11), 565-568. https://doi.org/10.1177/070674371405901101

Koob, G. F. (2015). The dark side of emotion: the addiction perspective. *European Journal of Pharmacology*, *753*, 73-87. https://doi.org/10.1016/j.ejphar.2014.11.044

Kovač, V. B., & Rise, J. (2011). The role of desire in the prediction of intention. *Swiss Journal of Psychology*. https://doi.org/10.1024/1421-0185/a000049

Kress, V. E., & Hoffman, R. M. (2008). Non-suicidal self-injury and motivational interviewing: Enhancing readiness for change. *Journal of Mental Health Counseling*, *30*(4). https://doi.org/10.17744/mehc.30.4.n2136170r5732u6h

Kruzan, K. P., & Whitlock, J. (2019). Processes of change and non-suicidal self-injury: A qualitative interview study with individuals at various stages of change. *Global Qualitative Nursing Research*, *6*, 1-15. https://doi.org/10.1177/2333393619852935

Lang, E. V. (2012). A better patient experience through better communication. *Journal of Radiology Nursing*, *31*, 114-119. https://doi.org/10.1016/j.jradnu.2012.08.001

Larimer, M. E., Palmer, R. S., & Marlatt, G. A. (2004). Relapse prevention: An overview of Marlatt's cognitive-behavioral model. *Psychosocial Treatments*, 1-18.

Lau, N., Sales, P., Averill, S., Murphy, F., Sato, S. O., & Murphy, S. (2015). A safer alternative: Cannabis substitution as harm reduction. *Drug and Alcohol Review*, *34*, 654-659. https://doi.org/10.1111/dar.12275

Levine, J. A., Noyes, E. T., Gius, B. K., Ahlich, E., Rancourt, D., Houston, R. J., & Schlauch, R. C. (2019). Development and psychometric evaluation of a brief approach and avoidance of alcohol questionnaire. *Alcoholism: Clinical and Experimental Research*, *43,* 353-366. http://doi.org/10.1111/acer.13939

Lewis, S. P. (2017). I cut therefore I am? Avoiding labels in the context of self-injury. *Medical Humanities*, *43*(3), 204-204. http://dx.doi.org/10.1136/medhum-2017-011221

Lewis, S. P., & Hasking, P. A. (2020). Rethinking self-injury recovery: A commentary and conceptual reframing. *BJPsych Bulletin*, *44*, 44-46. https://doi.org/10.1192/bjb.2019.51

Lewis, S. P., & Hasking, P. A. (2021). Self-injury recovery: A person-centered framework. *Journal of Clinical Psychology*, *77*, 884-895. https://doi.org/10.1002/jclp.23094

Lewis, S. P., & Mehrabkhani, S. (2016). Every scar tells a story: Insight into people's self-injury scar experiences. *Counselling Psychology Quarterly*, *29*, 296-310. https://doi.org/10.1080/09515070.2015.1088431

Lewis, S. P., Kenny, T. E., Whitfield, K., & Gomez, J. (2019). Understanding self-injury recovery: Views from individuals with lived experience. *Journal of Clinical Psychology*, *75*, 2119-2139. https://doi.org/10.1002/jclp.22834

Lloyd-Richardson, E. E., Perrine, N., Dierker, L., & Kelley, M. L. (2007). Characteristics and functions of non-suicidal self-injury in a community sample of adolescents. *Psychological Medicine*, *37*(8), 1183-1192. https://doi.org/10.1017/S003329170700027X

Long,M. (2018), "We're not monsters. . . we're just really sad sometimes: hidden self-injury, stigma and help seeking". *Health Sociology Review*, *27*, 89-103, https://doi.org/10.1080/14461242.2017.1375862.

Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour Research and Therapy, 33*, 335–343. https://doi.org/10.1016/0005-7967(94)00075-U

Mackay, N. & Barrowclough, C. (2005), Accident and emergency staff's perceptions of deliberate self-harm: attributions, emotions and willingness to help. *British Journal of Clinical Psychology, 2,* 255-267, https://doi.org/10.1348/014466505X29620.

MacKay, S., Paglia-Boak, A., Henderson, J., Marton, P., & Adlaf, E. (2009). Epidemiology of firesetting in adolescents: mental health and substance use correlates. *Journal of Child Psychology and Psychiatry*, *50*, 1282-1290. https://doi.org/10.1111/j.1469-7610.2009.02103.x

Mahtani, S., Hasking, P., & Melvin, G. A. (2019). Shame and non-suicidal self-injury: Conceptualization and preliminary test of a novel developmental model among emerging adults. *Journal of Youth and Adolescence*, *48*, 753-770. https://doi.org/10.1007/s10964-018-0944-0

Mars, B., Heron, J., Crane, C., Hawton, K., Lewis, G., Macleod, J., Tilling, K., & Gunnell, D. (2014). Clinical and social outcomes of adolescent self harm: population based birth cohort study. *BMJ: British Medical Journal*, *349*. https://doi.org/10.1136/bmj.g5954

Mackay, N., & Barrowclough, C. (2005). Accident and emergency staff's perceptions of deliberate self-harm: Attributions, emotions and willingness to help. *British Journal of Clinical Psychology*, *44*, 255-267. https://doi.org/10.1348/014466505X29620

May, A. M., & Victor, S. E. (2018). From ideation to action: recent advances in understanding suicide capability. *Current Opinion in Psychology*, *22*, 1-6. https://doi.org/10.1016/j.copsyc.2017.07.007

McEvoy, P. M., Hayes, S., Hasking, P. A., & Rees, C. S. (2017). Thoughts, images, and appraisals associated with acting and not acting on the urge to self-injure. *Journal of Behavior Therapy and Experimental Psychiatry*, *57*, 163-171. https://doi.org/10.1016/j.jbtep.2017.05.010

McEvoy, P. M., Stritzke, W. G., French, D. J., Lang, A. R., & Ketterman, R. (2004). Comparison of three models of alcohol craving in young adults: a cross-validation. *Addiction*, *99*(4), 482-497. https://doi.org/10.1111/j.1360-0443.2004.00714.x

McWilliams, L., Bellhouse, S., Yorke, J., Lloyd, K., & Armitage, C. J. (2019). Beyond "planning": A meta-analysis of implementation intentions to support smoking cessation. *Health Psychology*, *38*, 1059. https://doi.org/10.1037/hea0000768.

Miller, W. R., & Rose, G. S. (2015). Motivational interviewing and decisional balance: contrasting responses to client ambivalence. *Behavioural and Cognitive Psychotherapy*, *43*, 129-141. https://doi.org/10.1017/S1352465813000878

Moran, P., Coffey, C., Romaniuk, H., Degenhardt, L., Borschmann, R., & Patton, G. C. (2014). Substance use in adulthood following adolescent self-harm: a population-based cohort study. *Acta Psychiatrica Scandinavica*, *131*, 61-68. https://doi.org/10.1111/acps.12306

Muehlenkamp, J. J., Swenson, L. P., Batejan, K. L., & Jarvi, S. M. (2015). Emotional and behavioral effects of participating in an online study of non-suicidal self-injury: An experimental analysis." *Clinical Psychological Science 3,* 26-37. https://doi.org/10.1177/2167702614531579

Mummé, T. A., Mildred, H., & Knight, T. (2017). How do people stop non-suicidal self-injury? A systematic review. *Archives of Suicide Research*, *21*, 470-489. https://doi.org/10.1080/13811118.2016.1222319

Najmi, S., Wegner, D. M., & Nock, M. K. (2007). Thought suppression and self-injurious thoughts and behaviors. *Behaviour Research and Therapy*, *45*(8), 1957-1965. https://doi.org/10.1016/j.brat.2006.09.014

Nasserinejad, K., van Rosmalen, J., de Kort, W., & Lesaffre, E. (2017). Comparison of criteria for choosing the number of classes in Bayesian finite mixture models. *PloS One*, *12,* https://doi.org/10.1371/journal.pone.0168838

Nock, M. K. (2009). Why Do People Hurt Themselves?: New Insights Into the Nature and Functions of Self-Injury. *Current Directions in Psychological Science, 18*(2), 78–83. https://doi.org/10.1111/j.1467-8721.2009.01613.x

Nock, M. K. (2010). Self-injury. *Annual Review of Clinical Psychology, 6,* 339-363. https://doi.org/10.1146/annurev.clinpsy.121208.131258

Nock, M. K. & Favazza. A. R. 2009. "Nonsuicidal Self-injury: Definition and Classification." In M. K. Nock (Ed.), *Understanding Nonsuicidal Self-injury: Origins, Assessment, and Treatment* (pp. 9–18). Washington, DC: American Psychological Association.

Nock, M. K., & Mendes, W. B. (2008). Physiological arousal, distress tolerance, and social problem-solving deficits among adolescent self-injurers. *Journal of Consulting and Clinical Psychology*, *76*(1), 28. https://doi.org/10.1037/0022-006X.76.1.28

Nock M. K., & Prinstein M. J. (2004). A functional approach to the assessment of self-mutilative behavior. *Journal of Consulting and Clinical Psychology*, *72*, 885-890. https://doi.org/10.1037/0022-006X.72.5.885

Norcross, J. C., Krebs, P. M., & Prochaska, J. O. (2011). Stages of change. *Journal of Clinical Psychology*, *67*, 143-154. https://doi.org/10.1002/jcl p.20758

Norman, H., Marzano, L., Oskis, A., & Coulson, M. (2022). "My heart and my brain is what's bleeding, these are just cuts." An interpretative phenomenological analysis of young women's experiences of self-harm. *Frontiers in Psychiatry*, 1522. https://doi.org/10.3389/fpsyt.2022.914109

O'Connor, R. C., & Kirtley, O. J. (2018). The integrated motivational–volitional model of suicidal behaviour. *Philosophical Transactions of the Royal Society B: Biological Sciences*, *373*(1754), 20170268. https://doi.org/10.1098/rstb.2017.0268

Owens, C., Hansford, L., Sharkey, S., & Ford, T. (2016). Needs and fears of young people presenting at accident and emergency department following an act of self-harm: secondary analysis of qualitative data. *The British Journal of Psychiatry*, *208*, 286-291. https://doi.org/10.1192/bjp.bp.113.141242

Paley, G., & Lawton, D. (2001). Evidence-based practice: Accounting for the importance of the therapeutic relationship in UK National Health Service therapy provision. *Counselling and Psychotherapy Research*, *1*, 12-17. https://doi.org/10.1080/14733140112331385198

Park, Y., & Ammerman, B. A. (2020). How should we respond to non-suicidal self-injury disclosures?: An examination of perceived reactions to disclosure, depression, and suicide risk. *Psychiatry Research*, *293*, 113430. https://doi.org/10.1016/j.psychres.2020.113430

Polanco-Roman, L., Tsypes, A., Soffer, A., & Miranda, R. (2014). Ethnic differences in prevalence and correlates of self-harm behaviors in a treatment-seeking sample of emerging adults. *Psychiatry Research*, *220*(3), 927-934. https://doi.org/10.1016/j.psychres.2014.09.017

Preston, E. G., & West, A. E. (2021). Straight to the source: e-Communities for nonsuicidal self-injury and the emerging case for harm reduction in the treatment of nonsuicidal self-Injury. *Clinical Psychological Science*, *10,* https://doi.org/10.1177/21677026211049367

Prestwich, A., Perugini, M., & Hurling, R. (2008). Goal desires moderate intention-behaviour relations. *British Journal of Social Psychology*, *47*, 49-71. https://doi.org/10.1348/014466607X218221

Prochaska, J. O., Velicer, W. F., Rossi, J. S., Goldstein, M. G., Marcus, B. H., Rakowski, W., Fiore, C., Harlow, L. L., Redding, C. A., Rosenbloom, D., Rossi, S. R., & Matthews, K. A. (1994). Stages of change and decisional balance for 12 problem behaviors. *Health Psychology*, *13*(1), 39. https://doi.org/10.1037//0278-6133.13.1.39.

Rancourt, D., Ahlich, E., Levine, J. A., Lee, M. S., & Schlauch, R. C. (2019). Applying a multidimensional model of craving to disordered eating behaviors: Development of the Food Approach and Avoidance Questionnaire. *Psychological Assessment*, *31*, 751. https://doi.org/10.1037/pas0000697

Rhodes, R. E., & de Bruijn, G. J. (2013). How big is the physical activity intention–behaviour gap? A meta-analysis using the action control framework. *British Journal of Health Psychology*, *18*, 296-309. https://doi.org/10.1111/bjhp.12032.

Rhodes, R. E., & Dickau, L. (2012). Experimental evidence for the intention–behavior relationship in the physical activity domain: A meta-analysis. *Health Psychology*, *31*, 724. https://doi.org/10.1037/a0027290

Rodriguez-Blanco, L., Carballo, J. J., & Baca-Garcia, E. (2018). Use of ecological momentary assessment (EMA) in non-suicidal self-injury (NSSI): A systematic review. *Psychiatry Research*, *263*, 212-219. https://doi.org/10.1016/j.psychres.2018.02.051

Rosenberg, J. M., Beymer, P. N., Anderson, D. J., van Lissa, C. J., & Schmidt, J. A. (2019). TidyLPA: An R package to easily carry out latent profile analysis (LPA) using open-source or commercial software. *Journal of Open Source Software, 3,* Article 978.

Rosenrot, S. A., & Lewis, S. P. (2020). Barriers and responses to the disclosure of non-suicidal self-injury: A thematic analysis. *Counselling Psychology Quarterly*, *33*, 121-141. https://doi.org/10.1080/09515070.2018.1489220

Rowe, S. L., French, R. S., Henderson, C., Ougrin, D., Slade, M., & Moran, P. (2014). Help-seeking behaviour and adolescent self-harm: a systematic review. *Australian & New Zealand Journal of Psychiatry*, *48*(12), 1083-1095. https://doi.org/10.1177/0004867414555718.

Sandel, D. B., Jomar, K., Johnson, S. L., Dickson, J. M., Dandy, S., Forrester, R., & Taylor, P. J. (2021). Beliefs about one's non-suicidal self-injury: The experiences of self-injury questionnaire (ESIQ). *Archives of Suicide Research*, *25*(3), 458-474. https://doi.org/10.1080/13811118.2020.1712285

Saunders, K. E., Hawton, K., Fortune, S., & Farrell, S. (2012). Attitudes and knowledge of clinical staff regarding people who self-harm: a systematic review. *Journal of Affective Disorders*, *139,* 205-216.

Schlauch, R. C., Breiner, M. J., Stasiewicz, P. R., Christensen, R. L., & Lang, A. R. (2013). Women inmate substance abusers' reactivity to visual alcohol, cigarette, marijuana, and crack-cocaine cues: Approach and avoidance as separate dimensions of reactivity. *Journal of Psychopathology and Behavioral Assessment*, *35*, 45-56. https://doi.org/10.1007/s10862-012-9313-6

Schlauch, R. C., Rice, S. L., Connors, G. J., & Lang, A. R. (2015). Ambivalence model of craving: a latent profile analysis of cue-elicited alcohol craving in an inpatient clinical sample. *Journal of Studies on Alcohol and Drugs*, *76,* 764-772.

Schoenleber, M., Berenbaum, H., & Motl, R. (2014). Shame-related functions of and motivations for self-injurious behavior. *Personality Disorders: Theory, Research, and Treatment*, *5*(2), 204. https://doi.org/10.1037/per0000035

Scott, L. N., Pilkonis, P. A., Hipwell, A. E., Keenan, K., & Stepp, S. D. (2015). Non-suicidal self-injury and suicidal ideation as predictors of suicide attempts in adolescent girls: a

multi-wave prospective study. *Comprehensive Psychiatry*, *58*, 1-10. https://doi.org/10.1016/j.comppsych.2014.12.011

Selby, E. A., & Joiner T. T. (2009). Cascades of emotion: The emergence of borderline personality disorder from emotional and behavioral dysregulation. *Review of General Psychology 13,* 219-229. https://doi.org/10.1037/a0015687

Shaw, S. N. (2006). Certainty, revision, and ambivalence: A qualitative investigation into women's journeys to stop self-injuring. *Women & Therapy, 29*, 153-177. https://doi.org/10.1300/J015v29n01_08

Sheeran, P., & Webb, T. L. (2016). The intention–behavior gap. *Social and Personality Psychology Compass*, *10*, 503-518. https://doi.org/10.1111/spc3.12265

Simone, A. C., & Hamza, C. A. (2020). Examining the disclosure of nonsuicidal self-injury to informal and formal sources: A review of the literature. *Clinical Psychology Review*, *82*, 101907. https://doi.org/10.1016/j.cpr.2020.101907

Sordo, L., Barrio, G., Bravo, M. J., Indave, B. I., Degenhardt, L., Wiessing, L., Ferri, M., & Pastor-Barriuso, R. (2017). Mortality risk during and after opioid substitution treatment: systematic review and meta-analysis of cohort studies. *Bmj*, *357*. 1-14. https://doi.org/10.1136/bmj.j1550

Sparks, P., Harris, P. R., & Lockwood, N. (2004). Predictors and predictive effects of ambivalence. *British Journal of Social Psychology 43,* 371-383. https://doi.org/10.1348/0144666042037980

Spurk, D., Hirschi, A., Wang, M., Valero, D., & Kauffeld, S. (2020). Latent profile analysis: A review and "how to" guide of its application within vocational behavior research. *Journal of Vocational Behavior*, *120*, Article 103445.

Staniland, L., Hasking, P., Boyes, M., & Lewis, S. (2020). Stigma and non-suicidal self-injury: Application of a conceptual framework. *Stigma and Health*. https://doi.org/10.1037/sah0000257

Steckler, G., Witkiewitz, K., & Marlatt, G. A. (2013). Relapse and lapse. *Principles of Addiction*, *1*, 125-132.

Swannell, S. V., Martin, G. G., Page, A., Hasking, P., & St John, N. J. (2014). Prevalence of nonsuicidal self-injury in nonclinical samples: Systematic review, meta-analysis and meta-regression. *Suicide and Life-Threatening Behavior, 44*, 273-303. https://doi.org/10.1111/sltb.12070

Tan, S. C., Tam, C. L., & Bonn, G. (2019). Feeling better or worse? The lived experience of non-suicidal self-injury among Malaysian University students. *Asia Pacific Journal of*

Counselling and Psychotherapy 10, 3-20. https://doi.org/10.1080/21507686.2018.1541912

Tanner, A. K., Hasking, P., & Martin, G. (2015). Non-suicidal self-injury and firesetting: shared and unique correlates among school-based adolescents. *Journal of Youth and Adolescence*, *44*, 964-978. https://doi.org/10.1007/s10964-014-0119-6.

Tatnell, R., Kelada, L., Hasking, P., & Graham, M. (2014). Longitudinal analysis of adolescent NSSI: The role of intrapersonal and interpersonal factors. *Journal of Abnormal Child Psychology, 42*, 885-896. https://doi.org/10.1007/s10802-013-9837-6

Taylor. P.J., Jomar, K., Dhingra, K., Forrester, R., Shahmalak, & Dickson, J.M., (2018). A meta-analysis of the prevalence of different functions of non-suicidal self-injury. *Journal of Affective Disorders, 227*, 759-769. https://doi.org/10.1016/j.jad.2017.11.073

Taylor, J., Peterson, C. M., & Fischer, S. (2012). Motivations for self-injury, affect, and impulsivity: A comparison of individuals with current self-injury to individuals with a history of self-injury. *Suicide and Life-Threatening Behavior, 42*(6), 602-613. https://doi.org/10.1111/j.1943-278X.2012.00115.x

Tein, J.-Y., Coxe, S., & Cham, H. (2013). Statistical power to detect the correct number of classes in latent profile analysis. *Structural Equation Modeling: A Multidisciplinary Journal*, *20,* 640-657. http://doi.org/10.1080/10705511.2013.824781

Tiffany, S. T. (1990). A cognitive model of drug urges and drug-use behavior: role of automatic and nonautomatic processes. *Psychological Review*, *97*(2), 147. https://doi.org/10.1037/0033-295X.97.2.147

Tofthagen, R., Talseth, A. G., & Fagerstrøm, L. M. (2017). Former patients' experiences of recovery from self-harm as an individual, prolonged learning process: a phenomenological hermeneutical study. *Journal of Advanced Nursing*, *73*, 2306-2317. https://doi.org/10.1111/jan.13295

Turner, B. J., Baglole, J. S., Chapman, A. L., & Gratz, K. L. (2019). Experiencing and resisting nonsuicidal self-injury thoughts and urges in everyday life. *Suicide and Life-Threatening Behavior*, *49*(5), 1332-1346. https://doi.org/10.1111/sltb.12510

Turner, B. J., Chapman, A. L., & Gratz, K. L. (2014). Why stop self-injuring? Development of the reasons to stop self-injury questionnaire. *Behavior Modification*, *38,* 69-106. https://doi.org/10.1177/0145445513508977

Van Orden, K. A., Witte, T. K., Cukrowicz, K. C., Braithwaite, S. R., Selby, E. A., & Joiner Jr, T. E. (2010). The interpersonal theory of suicide. *Psychological Review*, *117*(2), 575. https://doi.org/10.1037/a0018697

Victor, S. E., & Klonsky, E. D. (2016). Validation of a brief version of the difficulties in emotion regulation scale (DERS-18) in five samples. *Journal of Psychopathology and Behavioral Assessment*, *38,* 582-589. https://doi.org/10.1007/s10862-016-9547-9

Victor, S. E., Muehlenkamp, J. J., Hayes, N. A., Lengel, G. J., Styer, D. M., & Washburn, J. J. (2018). Characterizing gender differences in nonsuicidal self-injury: Evidence from a large clinical sample of adolescents and adults. *Comprehensive Psychiatry*, *82*, 53-60. https://doi.org/10.1016/j.comppsych.2018.01.009

Waals, L., Baetens, I., Rober, P., Lewis, S., Van Parys, H., Goethals, E. R., & Whitlock, J. (2018). The NSSI family distress cascade theory. *Child and Adolescent Psychiatry and Mental Health*, *12*, 1-6. https://doi.org/10.1186/s13034-018-0259-7

Wadman, R., Vostanis, P., Sayal, K., Majumder, P., Harroe, C., Clarke, D., Armstrong, M. and Townsend, E. (2018). An interpretative phenomenological analysis of young people's self-harm in the context of interpersonal stressors and supports: parents, peers, and clinical services. *Social Science & Medicine, 212*, 120-128, https://doi.org/ 10.1016/j.socscimed.2018.07.021.

Wang, X., Huang, X., Huang, X., & Zhao, W. (2022). Parents' lived experience of adolescents' repeated non-suicidal self-injury in China: a qualitative study. *BMC Psychiatry*, *22*, 1-9. https://doi.org/10.1186/s12888-022-03715-7

Wang, Q., Pomerantz, E. M., & Chen, H. (2007). The role of parents' control in early adolescents' psychological functioning: A longitudinal investigation in the United States and China. *Child Development*, *78*, 1592-1610. https://doi.org/10.1111/j.1467-8624.2007.01085.x

Webb, T. L., & Sheeran, P. (2006). Does changing behavioral intentions engender behavior change? A meta-analysis of the experimental evidence. *Psychological Bulletin*, *132*, 249. https://doi.org/10.1037/0033-2909.132.2.249

Whitlock, J. (2011). 140. Non-suicidal self-injury in adolescents and young adults: general trends and gender differences. *Journal of Adolescent Health*, *48*(2), S90. https://doi.org/10.1016/j.jadohealth.2010.11.188

Whitlock, J., Lloyd-Richardson, E., Fisseha, F., & Bates, T. (2018). Parental secondary stress: The often hidden consequences of nonsuicidal self-injury in youth. *Journal of Clinical Psychology, 74,* 178-196. https://doi.org/10.1002/jclp.22488

Whitlock, J., Muehlenkamp, J., Eckenrode, J., Purington, A., Abrams, G. B., Barreira, P., & Kress, V. (2013). Non-suicidal self-injury as a gateway to suicide in young adults.

Journal of Adolescent Health, 52, 486-492. https://doi.org/10.1016/j.jadohealth.2012.09.010

Whitlock, J., Prussien, K., & Pietrusza, C. (2015). Predictors of self-injury cessation and subsequent psychological growth: results of a probability sample survey of students in eight universities and colleges. *Child and Adolescent Psychiatry and Mental Health*, *9*(1), 1-12. https://doi.org/10.1186/s13034-015-0048-5.

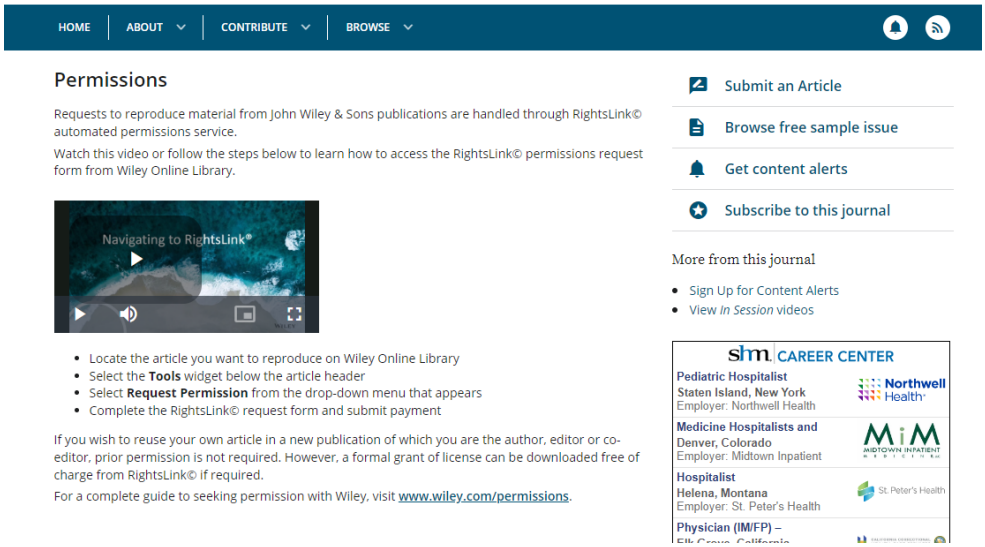
Williams, L., Bruce, G., & Knapton, C. (2018). Type D personality is associated with increased desire for alcohol in response to acute stress. *Stress and Health*, *34*(3), 411-415. https://doi.org/10.1002/smi.2800

Yang, X., & Feldman, M. W. (2018). A reversed gender pattern? A meta-analysis of gender differences in the prevalence of non-suicidal self-injurious behaviour among Chinese adolescents. *BMC Public Health*, *18*(1), 66. https://doi.org/10.1186/s12889-017-4614-z

Young, R., Van Beinum, M., Sweeting, H., & West, P. (2007). Young people who self-harm. *The British Journal of Psychiatry*, *191*(1), 44-49. https://doi.org/10.1192/bjp.bp.106.034330

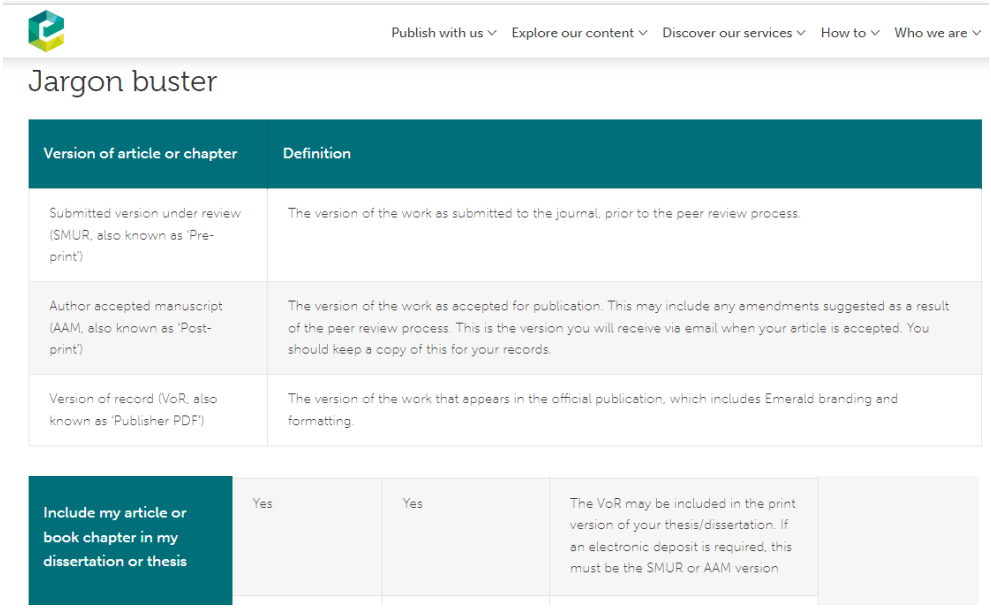
Appendix A

Study 1 (Chapter 2) and Study 2 (Chapter 3): *Journal of Clinical Psychology* Permissions



The paper forming the basis of Study 3 (Chapter 4) is currently 'revise and resubmit' at an international journal but has not been published. Thus, journal permissions are not required.

Chapter 5: Journal of Public Mental Health permissions



Appendix B

Chapter 2 Ethical Approval

Curtin University

Office of Research and Development

GPO Box U1987
Perth Western Australia 6845

Telephone +61 8 9266 7863
Facsimile +61 8 9266 3793
Web research.curtin.edu.au

20-Aug-2018

Name: Penelope Hasking
Department/School: School of Psychology
Email: Penelope.Hasking@curtin.edu.au

Dear Penelope Hasking

RE: Ethics approval
Approval number: HRE2018-0536

Thank you for submitting your application to the Human Research Ethics Office for the project **Social, emotional, and cognitive factors associated with health risk behaviours**.

Your application was reviewed by the Curtin University Human Research Ethics Committee at their meeting on **07-Aug-2018**. The review outcome is: **Approved**.

Your proposal meets the requirements described in National Health and Medical Research Council's (NHMRC) *National Statement on Ethical Conduct in Human Research (2007).*

Approval is granted for a period of one year from **20-Aug-2018** to **20-Aug-2019**. Continuation of approval will be granted on an annual basis following submission of an annual report.

Curtin University

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03-Aug-2017

Name: Penelope Hasking
Department/School: School of Psychology and Speech Pathology
Email: Penelope.Hasking@curtin.edu.au

Dear Penelope Hasking

RE: Amendment approval
Approval number: RDHS-236-15

Thank you for submitting an amendment request to the Human Research Ethics Office for the project **The experience and regulation of emotion**. Your amendment request has been reviewed and the review outcome is: **Approved**

The amendment approval number is RDHS-236-15-02 approved on 03-Aug-2017.

The following amendments were approved:
A change in the questionnaires i.e. the removal of questionnaires where the data is no longer relevant, and adding others on related constructs of: distress tolerance rumination coping and resilience.

Any special conditions noted in the original approval letter still apply.

Standard conditions of approval

1. Research must be conducted according to the approved proposal
2. Report in a timely manner anything that might warrant review of ethical approval of the project
   - including: proposed changes to the approved proposal or conduct of the study
   - unanticipated problems that might affect continued ethical acceptability of the project
   - major deviations from the approved proposal and/or regulatory guidelines
   - serious adverse events
3. Amendments to the proposal must be approved by the Human Research Ethics Office before they are implemented (except where an amendment is undertaken to eliminate an immediate risk to participants)
4. An annual progress report must be submitted to the Human Research Ethics Office on or before the anniversary of approval and a completion report submitted on completion of the project
5. Personnel working on this project must be adequately qualified by education, training and experience for their role, or supervised
6. Personnel must disclose any actual or potential conflicts of interest, including any financial or other interest or affiliation, that bears on this project
7. Changes to personnel working on this project must be reported to the Human Research Ethics Office

Data and primary materials must be retained and stored in accordance with the Western Australian University Sector Disposal Authority

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27-Mar-2017

Name: Penelope Hasking
Department/School: School of Psychology and Speech Pathology
Email: Penelope.Hasking@curtin.edu.au

Dear Penelope Hasking

RE: Ethics approval
Approval number: HRE2017-0156

Thank you for submitting your application to the Human Research Ethics Office for the project **Beliefs about self-injury**. Your application was reviewed by the Curtin University Human Research Ethics Committee at their meeting on **07-Feb-2017**. The review outcome is: **Approved**.

Your proposal meets the requirements described in National Health and Medical Research Council's (NHMRC) *National Statement on Ethical Conduct in Human Research (2007)*.

Approval is granted for a period of one year from **27-Mar-2017** to **26-Mar-2018**. Continuation of approval will be granted on an annual basis following submission of an annual report.

Appendix C

Chapter 2 Participant Information Sheets

Information sheet and consent

PARTICIPANT INFORMATION STATEMENT

HREC Project Number:	**HRE2018-0536**
Project Title:	**Social, Cognitive, and Emotional Factors Associated with Health Risk Behaviours**
Principal Investigator:	**Associate Prof. Penelope Hasking**
Co-investigators:	**Dr. Mark Boyes, Dr. Joel Howell, Jessica Dawkins, Danyelle Greene, Ashley Slabbert, & Kate Tonta**
Version Number:	**1**
Version Date:	**21/05/2018**

What is the Project About?

Health risk behaviours such as alcohol use and nonsuicidal self-injury (e.g. cutting, burning, punching walls, without suicidal intent) are prevalent in university populations. How people understand, express, and regulate their emotions can play a critical role in their psychological health outcomes including whether they engage in health risk behaviours such as drinking alcohol and engaging in self-injurious behaviours. In this study, we will explore how multiple social, cognitive, and emotional factors are related to these behaviours and how they might be used to regulate emotional experiences.

Please read this information sheet fully before consenting to participate in the study.

Who is doing the Research?

This study is being conducted by a group of researchers at Curtin, including several PhD students being supervised by A/Prof Penelope Hasking, Dr Mark Boyes and Dr Joel Howell. All PhD students are funded by the Australian Government through the Research Training Program. This project is funded by Curtin University.

Who can participate?

You can participate in this study if you are aged 18-25 and currently studying at an Australian University.

What does participation involve?

If you agree to participate, you will be asked to answer an online survey at a time and place convenient for you. The survey includes questions about your social connections as well as how you cope with and deal with emotions and your experience with alcohol. If you have ever engaged in self-injury you will be asked about these experiences.

The survey will take around 60 minutes to complete. You do not have to complete the study in one sitting. Once you begin the questionnaire you will have one week to complete the study. You can log back in as many times as you like within a week.

Are there any benefits to being in the research project?

There may be no direct benefit to you from participating in this research.
However, the current study will add to scientific knowledge about factors related to self-injury and alcohol use in university students. This knowledge may also benefit people in the future by informing prevention and treatment.

If you are completing the study for course credits at Curtin University you will receive 4 SONA points. If you are not participating for credit points you will be placed in the draw to win an iPad or 1 of 10 $25 Coles/Myer gift cards.

Are there any risks, side-effects, discomforts or inconveniences from being in the research project?

Participating in this survey is unlikely to have any risks beyond everyday living. However, it is possible that some questions in the survey may trigger upsetting thoughts and memories for some individuals. Remember that taking part in this study is voluntary and you are not obliged to participate. If you do consent to participate but change your mind at any point in the survey, you can withdraw by simply closing the survey. However, any questions you have answered prior to closing the survey may be used in the overall analysis.

We suggest taking a break or stopping the survey if you become upset whilst answering the questions. You will be provided with a list of counselling services and resources at the bottom of this information sheet and again upon competition of the questionnaire.

Confidentiality and data access

You will be asked for your name and student ID if you are participating for course credits at Curtin University. This will allow us to match your responses to your record on SONA, so we can award you points. However, at the end of the semester when your grades have been finalised all identifying information will be removed from the data, making the data anonymous from that point on.

For other participants, we will ask for your name and email address to contact you if you win a prize. Once the prizes are drawn all identifying information will be removed making your responses unidentifiable from that point on.

The following people will have access to the information we collect in this research: the research team and, in the event of an audit or investigation, staff from the Curtin University Office of Research and Development. The information in this research is electronic and will be stored on a password-protected computer. Anonymous data may be stored in an open access repository if required by a journal. The data we collect in this study will be kept under secure conditions at Curtin University for 7 years after the research has ended and then it will be destroyed.

Will you tell me the results of the research?

The results from this study may be presented at a conference or published in a journal but you will not be identifiable in any publications or presentations. If you wish to have a copy of the final results or have any questions, please contact us:

Penelope Hasking: Penelope.Hasking@curtin.edu.au
Mark Boyes: Mark.Boyes@curtin.edu.au
Joel Howell: Joel.Howell@curtin.edu.au
Danyelle Greene: Danyelle.greene@postgrad.curtin.edu.au
Jessica Dawkins: Jessica.C.Dawkins@postgrad.curtin.edu.au
Ashley Slabbert: Ashley.Slabbert@postgrad.curtin.edu.au
Kate Tonta: Kate.Tonta@postgrad.curtin.edu.au

Self injury fact sheet
Alcohol fact sheet
Useful resources

If you decide to take part in this research tick the consent box at the start of the Qualtrics survey.
By doing this you indicate you have understood the information provided here in the information sheet.

Curtin University Human Research Ethics Committee (HREC) has approved this study (HRE2018-0536). Should you wish to discuss the study with someone not directly involved, in particular, any matters concerning the conduct of the study or your rights as a participant, or you wish to make a confidential complaint, you may contact the Ethics Officer on (08) 9266 9223 or the Manager, Research Integrity on (08) 9266 7093 or email hrec@curtin.edu.au.

Info sheet & consent

PARTICIPANT INFORMATION SHEET

HREC Project Number:	**RDHS-236-15**
Project Title:	The experience and regulation of emotion
Principal Investigator:	Associate Professor Penelope Hasking Dr Mark Boyes
Version Number:	V2.0
Version Date:	August 2017

How we experience and regulate emotions is thought to play a crucial role in both psychological distress and mental health. The experience of emotion depends on the probability that an emotion is elicited in any given situation (reactivity), the intensity with which an emotion is felt (intensity) and how long the emotion is felt (perseveration). However there are no published studies exploring these different aspects of emotion in relation to outcomes such as self-injury or general psychological distress. In the current study we will explore these relationships to better understand how people experience and regulate emotion.

You are invited to take part in this study. Please read this Information Sheet in full before making a decision.

Why were you chosen for this research?
All undergraduate students enrolled in the Curtin University Psychology and Speech Pathology Undergraduate Participant Pool are eligible to participate.

What does the research involve?
You are invited to complete a questionnaire online that can be completed whenever you like. If you agree to participate, you will be asked questions about any experiences you have had with self-injury, and your general psychological wellbeing. You will also be asked about your belief in your ability to cope with stress and how you experience and regulate emotions.

Most people complete the questionnaire in between 45-60 minutes. It does not all need to be completed at once. You may come back to finish the questionnaire anytime within a 1 week period. After 1 week your responses will be lost and you will need to start the questionnaire again.

Possible benefits
While you may not personally benefit from participating in this study the results will help us further the theoretical understanding of emotion and emotion regulation, as well as emotion-related outcomes such as self-injury. This knowledge may identify potential targets for future intervention efforts.

Curtin students will be awarded 4 credit points if you answer at least 80% of the questions in the survey.

Possible risks
It is unlikely that participating in this study will incur any risks beyond normal day-to-day living. However some of the questions asked could trigger upsetting thoughts and memories for some people. Being in this study is voluntary and you are under no obligation to consent to participate. If you do consent to participate but later change your mind, you may withdraw from further participation by simply closing your browser. However data you have entered prior to closing the browser may still be used in the overall analyses.

If you do become upset at any stage while completing the questionnaire we suggest you take a break or stop the questionnaire. A list of useful resources is provided at the bottom of this information sheet, and at the end of the questionnaire.

Confidentiality
We will ask for your name and student ID number to allow us to match your responses to your record in SONA, allowing us to award you course credit. However after the grades have been ratified at the end of semester all identifying information will be removed from the data and we will no longer be able to identify any individual responses. From this point all data will be anonymous.

De-identified data may be placed in a public repository in future, made available to other researchers, or included

as material supplementary to published reports. No information that could identify any participant will ever be released to a third party or made public in any way.

Storage of data
Data collected will be stored in accordance with Curtin University regulations, kept on University premises, in a password protected file for 7 years. A report of the study may be submitted for publication, and data may be used to support student research projects (e.g. theses), but individual participants will not be identifiable in any report or student thesis.

Results
If you would like to be informed of the aggregate research finding, please contact Penelope.Hasking@curtin.edu.au in December 2018.

All research in Australia involving humans is reviewed by an independent group of people called a Human Research Ethics Committee (HREC). The ethical aspects of this research project have been approved by the Curtin University HREC. This project will be carried out according to the National Statement on Ethical Conduct in Human Research (2007). If you have any concerns and/or complaints about the project, the way it is being conducted or your rights as a research participant, and would like to speak to someone independent of the project, please contact: The Curtin University Ethics Committee by telephoning 9266 2784 or by emailing hrec@curtin.edu.au.

Below you will find some resources you might find helpful in managing stress or learning more about alcohol use and self-injury.

Useful resources
Stress management
Alcohol fact sheet
Self injury fact sheet
A guide for young people

BELIEFS ABOUT SELF-INJURY
Participant Information Sheet

HREC Project Number:	**HRE2017-0156**
Project Title:	Beliefs about self-injury
Principal Investigator:	Associate Professor Penelope Hasking
Co-Investigators:	Dr Mark Boyes Dr Camilla Luck Jessica Dawkins
Version Number:	v1.0
Version Date:	2 December 2016

Up to one third of university students engage in NSSI (the deliberate destruction of bodily tissue without intent to die), which is associated with a range of social, emotional and psychological outcomes. Theoretical accounts suggest that the beliefs we form about self-injury might play a role in why some people self-injure, but it is not really clear which beliefs are most salient. By better understanding these relationships we will be better placed to identify factors to focus on in prevention and early intervention initiatives.

You are invited to take part in this study. Please read this Information Sheet in full before making a decision. If you have any questions you would like to ask before participating please contact the Principal Investigator.

Who can participate in this research?
All undergraduate students enrolled in the Curtin University Psychology and Speech Pathology Undergraduate Participant Pool are eligible to participate. To effectively answer our research questions we need both people who self-injure and people who do not self-injure to participate.

What does the research involve?
You are invited to participate in a lab-based study that will take approximately 90 minutes of your time. In this study you will be asked to complete 4 computer-based tasks. One will ask you to indicate whether a sentence is correct or incorrect, by pressing the appropriate key on the keyboard. Another 2 will ask you to match pictures of self-injury, furniture or household items with words like Relief or Pain. In another task you will be presented with a series of paired words and pictures and asked to estimate how often different stimuli appear together. Finally you will be asked to complete some questionnaires about your history of self-injury (if applicable), what you think about self-injury, whether any of your family or friends self-injure and your own emotional experience.

Possible benefits
While you may not personally benefit from participating in this study the results will help us better understand the factors that initiate and maintain self-injury. Furthering our understanding of this complex behaviour will help us develop more effective prevention and early intervention initiatives to help those who want to stop self-injuring.
You will be awarded 6 credit points for participating in this study.

Possible risks
It is unlikely that participating in this study will incur any risks beyond normal day-to-day living. However some of the questions asked could trigger upsetting thoughts and memories for some people. Some if the images might also be confronting. Examples of the images we use in this study are shown below. Being in this study is voluntary and you are under no obligation to consent to participate. If you do consent to participate but later change your mind, you may withdraw from the study any time before your data is recorded.
A list of useful resources is provided at the bottom of this information sheet, and at the end of the questionnaire.

Confidentiality
We will ask for your name and student ID number to allow us to match your responses to your record in SONA, allowing us to award you course credit. However after the grades have been ratified at the end of semester all identifying information will be removed from the data and we will no longer be able to identify any individual responses. From this point all data will be anonymous. No information that could identify any participant will ever be released to a third party or made public in any way.
Data collected will be stored in accordance with Curtin University regulations, kept on University premises, in a password protected file for up to 8 years. A report of the study may be submitted for publication, and data may be used to support student research projects (e.g. theses), but individual participants will not be identifiable in any report or student thesis.

Results
If you would like to be informed of the aggregate research finding, please contact Penelope.Hasking@curtin.edu.au in December 2017.

Example images

[self-injury related images redacted]

Thank you,

A/Prof Penelope Hasking
Ph: 9266 3437
E: Penelope.Hasking@curtin.edu.au

All research in Australia involving humans is reviewed by an independent group of people called a Human Research Ethics Committee (HREC). The ethical aspects of this research project have been approved by the Curtin University HREC. This project will be carried out according to the National Statement on Ethical Conduct in Human Research (2007). If you have any concerns and/or complaints about the project, the way it is being conducted or your rights as a research participant, and would like to speak to someone independent of the project, please contact: The Curtin University Ethics Committee by telephoning 9266 2784 or by emailing hrec@curtin.edu.au.

Useful resources
Self injury fact sheet
A guide for young people

Appendix D

Chapter 2 Consent

I have received information regarding this research and had an opportunity to ask questions. I believe I understand the purpose, extent and possible risks of my involvement in this project and I voluntarily consent to take part.

- ○ I agree
- ○ I do not agree

Appendix E

Chapter 2 Questionnaire

I have received information regarding this research and had an opportunity to ask questions. I believe I understand the purpose, extent and possible risks of my involvement in this project and I voluntarily consent to take part.

- ○ I agree
- ○ I do not agree

Demographics

Are you a Curtin student participating for SONA points?

- ○ Yes
- ○ No

What is your date of birth? (dd/mm/yyyy)

What is your sex?

- ○ Male
- ○ Female
- ○ Another gender, please specify?
- ○ Prefer not to say

Do you consider yourself to be:

- ○ Heterosexual
- ○ Homosexual
- ○ Bisexual
- ○ Another orientation, please specify?
- ○ Prefer not to say

What is your postcode?

What country were you born in?

Do you identify as Aboriginal or Torres Strait Islander?

- ○ Yes
- ○ No

Which Australian university are you currently enrolled in?

What course are you currently studying?

What course are you currently studying?

At what level are you currently studying?

- Associate Degree
- Bachelor Degree
- Graduate Certificate
- Graduate Diploma
- Master Degree
- Doctoral Degree

Have you ever been diagnosed with a mental disorder?

- Yes (please specify)
- No

NSSI

Nonsuicidal Self-Injury
This questionnaire asks about a variety of nonsuicidal self-injury behaviours.
Nonsuicidal self-injury is defined as the deliberate physical self-damage or self-harm that is not accompanied by suicidal intent or ideation. Although cutting is one of the most well-known nonsuicidal self-injury behaviours, it can take many forms including but not limited to biting, burning, scratching, self-bruising or swallowing dangerous substances if undertaken with intent to injure oneself.

Have you ever thought about engaging in self-injury?

- Yes
- No

Have you ever engaged in nonsuicidal self-injury?

- Yes
- No

How many times have you self-injured in the last year?

None	Once	Twice	Three times	Four times	5 or more times
○	○	○	○	○	○

Please estimate the number of times in your life you have intentionally (i.e., on purpose) performed each type of non-suicidal self-injury (e.g., 0, 10, 100, 500):

	Click to write
Cutting	
Biting	
Burning	
Carving	
Pinching	
Pulling hair	
Severe scratching	
Banging or hitting yourself	
Interfering with wound healing	
Rubbing skin against rough surface	
Sticking yourself with needles	
Swallowing dangerous substances	
Other	

If you feel that you have a *main* form of self-injury, please indicate from the list below the behaviour you consider to be your main form of self-injury

- ○ Cutting
- ○ Biting
- ○ Burning
- ○ Carving
- ○ Pinching
- ○ Pulling hair
- ○ Severe scratching
- ○ Banging or hitting yourself
- ○ Interfering with wound healing
- ○ Rubbing skin against rough surface
- ○ Sticking yourself with needles
- ○ Swallowing dangerous substances
- ○ Other

At what age did you (please write a number):

	Click to write
First injure yourself?	
Most recently injure yourself?	

Do you experience physical pain during self-injury?

Yes	Sometimes	No
○	○	○

When you self-injure are you alone?

Yes	Sometimes	No
○	○	○

Typically, how much time elapses from the time you have the urge to self-injure until you act on the urge?

<1 hour	1-3 hours	3-6 hours	6-12 hours	12-24 hours	>1 day
○	○	○	○	○	○

Do/did you want to stop self-injuring?

- ○ Yes
- ○ No

This inventory was written to help us better understand the experience of nonsuicidal self-injury. Below is a list of statements that may or may not be relevant to your experience of self-injury.
Please identify the statements that are most relevant for you.

When I self-injure I am...

	Not relevant	Somewhat relevant	Very relevant
calming myself down	○	○	○
creating a boundary between myself and others	○	○	○
punishing myself	○	○	○
giving myself a way to care for myself (by attending to the wound)	○	○	○
causing pain so I will stop feeling numb	○	○	○
avoiding the impulse to attempt suicide	○	○	○
doing something to generate excitement or exhilaration	○	○	○
bonding with peers	○	○	○
letting others know the extent of my emotional pain	○	○	○
seeing if I can stand the pain	○	○	○
creating a physical sign that I feel awful	○	○	○
getting back at someone	○	○	○
ensuring I am self-sufficient	○	○	○
releasing emotional pressure that has built up inside of me	○	○	○
demonstrating that I am separate from other people	○	○	○
expressing anger towards myself for being worthless or stupid	○	○	○

creating a physical injury is easier to care for than my emotional distress			
trying to feel something (as opposed to nothing) even if it is physical pain			
responding to suicidal thoughts without actually attempting suicide			
entertaining myself or others by doing something extreme			
fitting in with others			
seeking care or help from others			
demonstrating I am tough or strong			
proving to myself that emotional pain is real			
getting revenge against others			
demonstrating that I do not need to rely on others for help			
reducing anxiety, frustration, anger, or other overwhelming emotions			
establishing a barrier between myself and others			
reacting to feeling unhappy with myself or disgusted with myself			
allowing myself to focus on treating the injury, which can be gratifying or satisfying			

making sure I am alive when I don't feel real			
putting a stop to suicidal thoughts			
pushing my limits in a manner akin to skydiving or other extreme activities			
creating a sign of friendship or kinship with friends or loved ones			
keeping a loved one from leaving or abandoning me			
proving I can take the physical pain			
signifying the emotional distress I'm experiencing			
trying to hurt someone close to me			
establishing that I am autonomous/independent			

We are interested in your thoughts about what might happen if someone engages in self-injury. If you personally have self-injured think about what you might expect the outcome to be when you self-injure. If you do not self-injure, think about what the outcome might be if you did.

How likely is it that after self-injuring:

	Extremely unlikely	Somewhat unlikely	Somewhat likely	Extremely likely
I would feel less frustrated with the world				
My friends would be disgusted				
I could make people do things for me				
I would feel physical pain				
I would feel like a failure				
I would feel better about myself				
My friends would not approve of me				
It would be easier to get what I want from others				
It would hurt				
I would feel ashamed				
I would feel calm				
My family would be disgusted				
Other people would notice and offer sympathy				
I would not be aware of my physical pain				
I would feel numb				

The future would seem more optimistic				
My parents would be angry				
I would feel that it would be easier to open up and express my feelings				
I would not feel any pain				
I would feel emotionally drained				
I would feel relieved				
Other people would notice and think I was a freak				
I would get care from others				
The pain would be intense				
I would hate myself				

Please read each of the statements below carefully and select the answer which best fits how certain you are about how you would act in each of the following situations.

	Very uncertain					Very certain
How certain are you that you will not self-injure in the future?	○	○	○	○	○	○
If at some point in the future you had self-injurious thoughts, how certain are you that you could resist self-injury?	○	○	○	○	○	○
If at some point in the future you had self-injurious thoughts, how certain are you that you could resist self-injury if you were using alcohol or other drugs?	○	○	○	○	○	○
How certain are you that you could control future thoughts of self-injury if you were experiencing physical pain?	○	○	○	○	○	○
How certain are you that you could control future self-injurious thoughts if you lost an important relationship?	○	○	○	○	○	○
How certain are you that you could control future self-injurious thoughts if you lost a job, could not find employment, or suffered a financial crisis?	○	○	○	○	○	○

Please indicate below how often the following statements apply to you.

	almost never (0-10%)	sometimes (11-35%)	about half the time (36-65%)	most of the time (66-90%)	almost always (91-100%)
I am clear about my feelings	○	○	○	○	○
I pay attention to how I feel	○	○	○	○	○
I experience my emotions as overwhelming and out of control	○	○	○	○	○
I have no idea how I am feeling	○	○	○	○	○
I have difficulty making sense out of my feelings	○	○	○	○	○
I am attentive to my feelings	○	○	○	○	○
I know exactly how I am feeling	○	○	○	○	○
I care about what I am feeling	○	○	○	○	○
I am confused about how I feel	○	○	○	○	○
When I'm upset, I acknowledge my emotions	○	○	○	○	○
When I'm upset, I become angry at myself for feeling that way	○	○	○	○	○
When I'm upset, I become embarrassed for feeling that way	○	○	○	○	○
When I'm upset, I have difficulty getting work done	○	○	○	○	○
When I'm upset, I become out of control	○	○	○	○	○
When I'm upset, I believe that I will remain that way for a long time	○	○	○	○	○
When I'm upset, I believe that I will end up feeling very depressed	○	○	○	○	○
When I'm upset, I believe that my feelings are valid and important	○	○	○	○	○
When I'm upset, I have difficulty focusing on other things	○	○	○	○	○
When I'm upset, I feel out of control	○	○	○	○	○
When I'm upset, I can still get things done	○	○	○	○	○
When I'm upset, I feel ashamed of myself for feeling that way	○	○	○	○	○
When I'm upset, I know that I can find a way to eventually feel better	○	○	○	○	○
When I'm upset, I feel like I am weak	○	○	○	○	○
When I'm upset, I feel like I can remain in control of my behaviours	○	○	○	○	○
When I'm upset, I feel guilty for feeling that way	○	○	○	○	○
When I'm upset, I have difficulty concentrating	○	○	○	○	○
When I'm upset, I have difficulty controlling my behaviours	○	○	○	○	○
When I'm upset, I believe there is nothing I can do to make myself feel better	○	○	○	○	○
When I'm upset, I become irritated at myself for feeling that way	○	○	○	○	○
When I'm upset, I start to feel very bad about myself	○	○	○	○	○
When I'm upset, I believe that wallowing in it is all I can do	○	○	○	○	○
When I'm upset, I lose control over my behaviour	○	○	○	○	○
When I'm upset, I have difficulty thinking about anything else	○	○	○	○	○
When I'm upset, I take time to figure out what I'm really feeling	○	○	○	○	○
When I'm upset, it takes me a long time to feel better	○	○	○	○	○
When I'm upset, my emotions feel overwhelming	○	○	○	○	○

In this section we are interested in your emotional well being
Read each statement tick which response best indicates how much the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on any statement.

	Never	Sometimes	Often	Almost Always
I found it hard to wind down	○	○	○	○
I was aware of dryness of my mouth	○	○	○	○
I couldn't seem to experience any positive feelings at all	○	○	○	○
I experienced breathing difficulties (e.g. excessively rapid breathing, breathlessness in the absence of physical exertion)	○	○	○	○
I found it difficult to work up the initiative to do things	○	○	○	○
I tended to over-react to situations	○	○	○	○
I experienced trembling (e.g. in the hands)	○	○	○	○
I felt that I was using a lot of nervous energy	○	○	○	○
I was worried about situations in which I might panic and make a fool of myself	○	○	○	○
I felt I had nothing to look forward to	○	○	○	○
I found myself getting agitated	○	○	○	○
I found it difficult to relax	○	○	○	○
I felt down-hearted and blue	○	○	○	○
I was intolerant of anything that kept me from getting on with what I was doing	○	○	○	○
I felt I was close to panic	○	○	○	○
I was unable to become enthusiastic about anything	○	○	○	○
I felt I wasn't worth much as a person	○	○	○	○
I felt that I was rather touchy	○	○	○	○
I was aware of the action of my heart in the absence of physical exertion (e.g. sense of heart rate increase, heart missing a beat)	○	○	○	○
I felt scared without any good reason	○	○	○	○
I felt that life was meaningless	○	○	○	○

Appendix F

Chapter 3 and Chapter 4 Ethical Approval

Curtin University

Research Office at Curtin

GPO Box U1987
Perth Western Australia 6845

Telephone +61 8 9266 7863
Facsimile +61 8 9266 3793
Web research.curtin.edu.au

19-May-2020

Name: Mark Boyes
Department/School: Curtin University
Email: Mark.Boyes@curtin.edu

.au Dear Mark Boyes

RE: Ethics approval
Approval number: HRE2020-0237

Thank you for submitting your application to the Human Research Ethics Office for the project **Ambivalence in the recovery process of non-suicidal self-injury**.

Your application was reviewed by the Curtin University Human Research Ethics Committee at their meeting on **05-May-2020**. The review outcome is: **Approved**.

Your proposal meets the requirements described in National Health and Medical Research Council's (NHMRC) *National Statement on Ethical Conduct in Human Research (2007)*.

Approval is granted for a period of one year from **19-May-2020** to **18-May-2021**. Continuation of approval will be granted on an annual basis following submission of an annual report.

Personnel authorised to work on this project:

Name	Role
Boyes, Mark	CI
Hasking, Penelope	Co-Inv
Gray, Nicole	Student

Standard conditions of approval

1. Research must be conducted according to the approved proposal
2. Report in a timely manner anything that might warrant review of ethical approval of the project
   - including: proposed changes to the approved proposal or conduct of the study
   - unanticipated problems that might affect continued ethical acceptability of the project
   - major deviations from the approved proposal and/or regulatory guidelines
   - serious adverse events
3. Amendments to the proposal must be approved by the Human Research Ethics Office before they are implemented (except where an amendment is undertaken to eliminate an immediate risk to participants)
4. An annual progress report must be submitted to the Human Research Ethics Office on or before the anniversary of approval and a completion report submitted on completion of the project

Personnel working on this project must be adequately qualified by education, training and experience for their role, or supervised

Appendix G

Chapter 3 Information Sheet – SONA Participants

Are you a Curtin University student receiving SONA points for participation?

◯ Yes, I am a Curtin student receiving SONA points

◯ No, I am not a Curtin student and will not be receiving SONA points

Approaching/Avoiding Non-suicidal Self-injury
Survey Study Information Sheet

Nicole Gray
Associate Professor Mark Boyes
Professor Penelope Hasking

Non-suicidal self-injury is the deliberate damage to one's own body (e.g. cutting, burning) without conscious suicidal intent. Those who self-injure report doing so for a variety of reasons, most commonly as a method of reducing overwhelming, unwanted emotion. Much of the research to date has focused on functions and risk factors. This study aims to look at factors which may increase, and decrease the risk of self-injuring.

Personal factors (e.g. personality) and experiences with NSSI (e.g. exposure, expectations) may make someone more likely to feel a certain way about engaging, or not engaging in the behaviour.

We are looking for participants who either have or have not engaged in NSSI at some point in their lives. If you are willing to participate, you will be asked to fill out an online survey. In the survey you will be asked about your experiences of self-injury, including the nature and extent of your engagement in it, if that applies. You will also be asked about aspects of your personality, your exposure to self-injury, how you cope with emotion, and your beliefs surrounding both emotion and self-injury. It should take approximately 45-60 minutes of your time to complete the survey.

There should be no significant risks associated with participating in this survey, although we do understand that reflecting on experiences you may have had with self-injury may be confronting. Participation in this survey is voluntary, and you are under no obligation to start or continue should you feel it is affecting your wellbeing. You may stop, or postpone participation at any time by simply closing the browser. If you wish to continue at a later time, you are able to reopen the survey from where you left off, providing this is done within a 2 week period. If you choose to continue participation after this 2 week period you will need to start from the beginning of the survey again. Should you feel any emotional distress as a result of participation, there are links below to support services including contact details. There has previously been feedback from participants of other studies of similar nature indicate that many people value the opportunity to help others by sharing their experiences.

As a Curtin University student recruited through SONA, you will receive 4 SONA points for participating in the study.

At the end of the survey we will ask you for your full name and student ID number. This will be necessary to allocate SONA points. Any responses provided will remain confidential, and nobody other than the researchers will have access. At the end of the survey, you may also be asked if you would be willing to participate in an interview regarding your experiences of self-injury and recovery. If you are interested, you will be asked for your contact details through an external link.

Electronic data will be stored on a secure, password protected research drive. Only the research team will have access to raw data. In accordance with the WA University Sector Disposal Authority, data will be kept in this secure location for 7 years post-publication before being destroyed. The results of this study may be published in scientific journals, books, or presented at conferences. At no point will your individual responses be identifiable. De-identified data may be deposited in a public repository if this is a requirement for publication.

If you have any questions about this study please email Nicole Gray on the below email address. If

you would like to see the results of this study please contact us in July 2022.

Thank you very much for your time and consideration to participate in this research.

Nicole Gray – Nicole.Gray@postgrad.curtin.edu.au Mark Boyes – Mark.Boyes@curtin.edu.au
Penny Hasking – Penelope.Hasking@curtin.edu.au

Self injury fact sheet
Shedding Light on Self-Injury
Self-Injury and Recovery Resources
Self-Injury Outreach and Support
Stress management

If you are experiencing distress currently and need to talk to someone immediately, you can find local support here.

Curtin University Human Research Ethics Committee (HREC) has approved this study (HREC number HRE2020-0237). Should you wish to discuss the study with someone not directly involved, in particular, any matters concerning the conduct of the study or your rights as a participant, or you wish to make a confidential complaint, you may contact the Ethics Officer on (08) 9266 9223 or the Manager, Research Integrity on (08) 9266 7093 or email hrec@curtin.edu.au. Please note this office is located in Perth Australia. The office is open during business hours (GMT+8).

Appendix H

Chapter 3 Information Sheet – Community Participants

Approaching/Avoiding Non-suicidal Self-injury
Survey Study Information Sheet
Nicole Gray
Dr Mark Boyes
Professor Penelope Hasking

Non-suicidal self-injury is the deliberate damage to one's own body (e.g. cutting, burning) without conscious suicidal intent. Those who self-injure report doing so for a variety of reasons, most commonly as a method of reducing overwhelming, unwanted emotion. Much of the research to date has focused on functions and risk factors. This study aims to look at factors which may increase, and decrease the risk of self-injuring.

Personal factors (e.g. personality) and experiences with NSSI (e.g. exposure, expectations) may make someone more likely to feel a certain way about engaging, or not engaging in the behaviour.

We are looking for participants who either have or have not engaged in NSSI at some point in their lives. If you are willing to participate, you will be asked to fill out an online survey. In the survey you will be asked about your experiences of self-injury, including the nature and extent of your engagement in it, if that applies. You will also be asked about aspects of your personality, your exposure to self-injury, how you cope with emotion, and your beliefs surrounding both emotion and self-injury. It should take approximately 45-60 minutes of your time to complete the survey.

There should be no significant risks associated with participating in this survey, although we do understand that reflecting on experiences you may have had with self-injury may be confronting. Participation in this survey is voluntary, and you are under no obligation to start or continue should you feel it is affecting your wellbeing. You may stop, or postpone participation at any time by simply closing the browser. If you wish to continue at a later time, you are able to reopen the survey from where you left off, providing this is done within a 2 week period. If you choose to continue participation after this 2 week period you will need to start from the beginning of the survey again. Should you feel any emotional distress as a result of participation, there are links below to support services including contact details. There has previously been feedback from participants of other studies of similar nature indicate that many people value the opportunity to help others by sharing their experiences.

Completing this survey means you will go into a draw to win 1 of 20 $50 e-gift cards.

Any responses provided will remain anonymous, and nobody other than the researchers will have access to any responses. At the end of the survey, you may also be asked if you would be willing to participate in an interview regarding your experiences of self-injury and recovery. If you are interested, you will be asked for your contact details through an external link.

Electronic data will be stored on a secure, password protected research drive. Only the research team will have access to raw data. In accordance with the WA University Sector Disposal Authority, data will be kept in this secure location for 7 years post-publication before being destroyed. The results of this study may be published in scientific journals, books, or presented at conferences. At no point will your individual responses be identifiable. De-identified data may be deposited in a public repository if this is a requirement for publication.

If you have any questions about this study please email Nicole Gray on the below email address.
If you would like to see the results of this study please contact us in July 2022.
Thank you very much for your time and consideration to participate in this research

Nicole Gray – Nicole.Gray@postgrad.curtin.edu.au
Mark Boyes – Mark.Boyes@curtin.edu.au
Penny Hasking – Penelope.Hasking@curtin.edu.au

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If you are experiencing distress currently and need to talk to someone immediately, you can find local support here.

Curtin University Human Research Ethics Committee (HREC) has approved this study (HREC number HRE2020-0237). Should you wish to discuss the study with someone not directly involved, in particular, any matters concerning the conduct of the study or your rights as a participant, or you wish to make a confidential complaint, you may contact the Ethics Officer on (08) 9266 9223 or the Manager, Research Integrity on (08) 9266 7093 or email hrec@curtin.edu.au. Please note this office is located in Perth Australia. The office is open during business hours (GMT+8)

Appendix I

Chapter 3 Consent

I have read the information above and agree to participate in this anonymous survey about my experience of self-injury

Yes, I would like to complete the survey

No, I am not interested

Appendix J

Chapter 3 Questionnaire

We would just like to check you understand what we are asking you to do in this survey.

What is this study about?

- Family pressure during university
- How you feel about engaging or not engaging in self-injury
- Attitudes toward politics

What will you be asked to do if you choose to participate?

- Participate in an interview
- Complete a daily journal for the next two weeks
- Complete an online survey

I have read the information above and agree to participate in this anonymous survey about my experience of self-injury

- Yes, I would like to complete the survey
- No, I am not interested

True or False?

All responses are confidential

- True
- False

Have you/have you not wanted to self-injure

In the following questions we are going to ask you about your history of self-injurious thoughts. Remember you can take a break or stop doing the questionnaire at any time by simply closing the browser. If you wish to talk to someone about feelings that may come about through doing this questionnaire remember you can call:

Lifeline: 13 11 14
BeyondBlue: 1300 22 4636

Nonsuicidal Self-Injury

Non-suicidal self-injury is defined as the deliberate damage to one's body that is <u>not</u> associated with conscious suicidal intent. This does not include socially acceptable forms of tissue damage such as tattooing and body piercing.

Have you wanted to self-injure during your lifetime? (please respond regardless of whether you have or have not actively done so)

- ◯ Yes
- ◯ No

Some desires or decisions are not black and white - we can want AND not want something at the same time. With this in mind, please answer the following questions.

On average, to what extent have you wanted to NOT self-injure over your lifetime?

1 - Only slightly not wanted to self-injure	2	3	4	5	6 - Somewhat not wanted to self-injure	7	8	9	10	11 - Very much not wanted to self-injure
◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯

On average, to what extent have you wanted to self-injure over your lifetime?

1 - Only slightly wanted to self-injure	2	3	4	5	6 - Somewhat wanted to self-injure	7	8	9	10	11 - Very much wanted to self-injure
◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯

These questions may seem repetitive, though we are determining how you felt at different times of your life. Please consider whether the following questions were relevant to you during the specific time points given.

Have you wanted to self-injure over the past year?

- ◯ Yes
- ◯ No

Some desires or decisions are not black and white - we can want AND not want something at the same time. With this in mind, please answer the following questions.

On average, to what extent have you NOT wanted to self-injure over the past year?

1 - Only slightly not wanted to self-injure	2	3	4	5	6 - Somewhat not wanted to self-injure	7	8	9	10	11 - Very much not wanted to self-injure
◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯

On average, to what extent have you wanted to self-injure over the past year?

1 - Only slightly wanted to self-injure	2	3	4	5	6 - Somewhat wanted to self-injure	7	8	9	10	11 - Very much wanted to self-injure

Some desires or decisions are not black and white - we can want AND not want something at the same time. With this in mind, please answer the following questions. On average, to what extent have you wanted to self-injure over the past month?

On average, to what extent have you NOT wanted to self-injure over the past month?

1 - Only slightly not wanted to self-injure	2	3	4	5	6 - Somewhat not wanted to self-injure	7	8	9	10	11 - Very much not wanted to self-injure

On average, to what extent have you wanted to self-injure over the past month?

1 - Only slightly wanted to self-injure	2	3	4	5	6 - Somewhat wanted to self-injure	7	8	9	10	11 - Very much wanted to self-injure

Decisional Balance

The following four questions are intended for both those who self-injure and those who do not. Please feel free to add as much or as little detail as you are comfortable with.

In the space below, please list your own perceived advantages of continuing to engage in self-injury.

In the space below, please list your own perceived disadvantages of stopping self-injury.

In the space below, please list your own perceived disadvantages of continuing to engage in self-injury.

In the space below, please list your own perceived advantages of stopping self-injury.

Demographics

We just need a bit of background information about you.

How old are you?

What is your gender?

Male

Female

Transgender

Nonbinary

Another gender (please specify if you would like to)

Do you consider yourself to be:

Bisexual

Homosexual

◯ Heterosexual

◯ Another sexual orientation (please specify if you would like to)

What is your postcode?

What country were you born in?

Do you identify as Aboriginal or Torres Strait Islander?

- ◯ Yes
- ◯ No

Are you a university student?

- ◯ Yes
- ◯ No

What year of university are you currently enrolled in?

- ◯ First
- ◯ Second
- ◯ Third
- ◯ Fourth
- ◯ Other

Are you studying full time or part time?

- ◯ Full time
- ◯ Part time

Are you a Curtin University student seeking SONA points?

- ◯ Yes
- ◯ No

Where are you living?

- ◯ At home with parents/family
- ◯ In university accommodation
- ◯ Boarding school
- ◯ With flatmates
- ◯ On your own
- ◯ With a partner
- ◯ Other (please specify)

Have you ever been diagnosed with a mental illness? (If yes, please specify)

- ◯ Yes
- ◯ No

Self-injury history behaviours

In the following section we will be asking about your experiences and history of non-suicidal self-injury. Remember that, should you feel emotional distress, you are able to take a break, or exit at anytime by closing the web browser. Should you wish to speak to someone about what may come up for you while taking this questionnaire, you can call:

Lifeline: 13 11 14
BeyondBlue: 1300 22 4636

Non-suicidal self-injury
Non-suicidal self-injury is defined as the deliberate damage to one's body that is <u>not</u> associated with conscious suicidal intent. This does not include socially acceptable forms of tissue damage such as tattooing and body piercing.

Have you ever engaged in nonsuicidal self-injury in your lifetime?

Yes

No

Have you wanted to stop self-injuring during your lifetime? (please respond regardless of whether you have or have not actively done so)

Yes

No

Some desires or decisions are not black and white - we can want AND not want something at the same time. With this in mind, please answer the following questions.

On average, to what extent have you NOT wanted to stop self-injuring over your lifetime?

1 - Only slightly not wanted to stop self-injuring	2	3	4	5	6 - Somewhat not wanted to stop self-injuring	7	8	9	10	11 - Very much not wanted to stop self-injuring

On average, to what extent have you wanted to stop self-injuring over your lifetime?

1 - Only slightly wanted to stop self-injuring	2	3	4	5	6 - Somewhat wanted to stop self-injuring	7	8	9	10	11 - Very much wanted to stop self-injuring

Some desires or decisions are not black and white - we can want AND not want something at the same time. With this in mind, please answer the following questions.

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1 - Only slightly not wanted to stop self-injuring	2	3	4	5	6 - Somewhat not wanted to stop self-injuring	7	8	9	10	11 - Very much not wanted to stop self-injuring

These questions may seem repetitive, though we are determining how you felt at different times of your life. Please consider whether the following questions were relevant to you during the specific time points given.

Have you wanted to stop self-injuring over the past year?

- ◯ Yes
- ◯ No

Some desires or decisions are not black and white - we can want AND not want something at the same time. With this in mind, please answer the following questions.

On average, to what extent have you wanted to stop self-injuring over the past year?

1 - Only slightly wanted to stop self-injuring	2	3	4	5		6 - Somewhat wanted to stop self-injuring	7	8	9	10			11 - Very much wanted to stop self-injuring
◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯

On average, to what extent have you NOT wanted to stop self-injuring over the past year?

1 - Only slightly not wanted to stop self-injuring	2	3	4	5	6 - Somewhat not wanted to stop self-injuring	7	8	9	10	11 - Very much not wanted to stop self-injuring
◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯

Some desires or decisions are not black and white - we can want AND not want something at the same time. With this in mind, please answer the following questions.

On average, to what extent have you NOT wanted to stop self-injuring over the past year?

1 - Only slightly not wanted to stop self-injuring	2	3	4	5	6 - Somewhat not wanted to stop self-injuring	7	8	9	10	11 - Very much not wanted to stop self-injuring
◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯

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1 - Only slightly wanted to stop self-injuring	2	3	4	5		6 - Somewhat wanted to stop self-injuring	7	8	9	10			11 - Very much wanted to stop self-injuring
◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯

Have you wanted to stop self-injuring over the past month?

- ◯ Yes
- ◯ No

Some desires or decisions are not black and white - we can want AND not want something at the same time. With this in mind, please answer the following questions.

On average, to what extent have you wanted to stop self-injuring over the past month?

1 - Only slightly wanted to stop self-injuring	2	3	4	5	6 - Somewhat wanted to stop self-injuring	7	8	9	10	11 - Very much wanted to stop self-injuring
◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯

On average, to what extent have you NOT wanted to stop self-injuring over the past month?

1 - Only slightly not	wanted to	2	3	4	5	6 - Somewhat not wanted to

Some desires or decisions are not black and white - we can want AND not want something at the same time. With this in mind, please answer the following questions.

On average, to what extent have you NOT wanted to stop self-injuring over the past month?

1 - Only slightly not wanted to stop self-injuring	2	3	4	5	6 - Somewhat not wanted to stop self-injuring	7	8	9	10	11 - Very much not wanted to stop self-injuring
○	○	○	○	○	○	○	○	○	○	○

On average, to what extent have you wanted to stop self-injuring over the past month?

1 - Only slightly wanted to stop self-injuring	2	3	4	5	6 - Somewhat wanted to stop self-injuring	7	8	9	10	11 - Very much wanted to stop self-injuring
○	○	○	○	○	○	○	○	○	○	○

Would you consider yourself to have stopped engaging in self-injury?

○ Yes

○ No

On how many days have you self-injured?

	None	One day	Two days	Three days	Four days	Five or more days
The last year	○	○	○	○	○	○
The last month	○	○	○	○	○	○

At what age did you (please write a number):

	Click to write
First injure yourself?	
Most recently injure yourself?	

Please only select a behaviour if you have done it intentionally (i.e., on purpose) and without suicidal intent (i.e., not for suicidal reasons).

Please estimate the number of times in your life you have intentionally (i.e., on purpose) performed each type of nonsuicidal self-injury (please write a number)

	Click to write
Cutting	
Biting	
Burning	
Carving	
Pinching	
Pulling hair	
Severe scratching	
Banging or hitting yourself	
Interfering with wound healing	
Rubbing skin against rough surface	
Sticking yourself with needles	

Swallowing dangerous substances	
Other	

If you feel that you have/had a *main* form of self-injury, please indicate from the list below the behaviour you consider to be your main form of self-injury

Cutting
Biting
Burning
Carving
Pinching
Pulling hair
Severe scratching
Banging or hitting yourself
Interfering with wound healing
Rubbing skin against rough surface
Sticking yourself with needles
Swallowing dangerous substances
Other

Do/did you experience physical pain during self-injury?

Yes
Sometimes
No

When you self-injure are/were you alone?

Yes
Sometimes
No

Typically, how much time elapses(d) from the time you have the urge to self-injure until you act on the urge?

<1 hour	1-3 hours	3-6 hours	6-12 hours	12-24 hours	>1 day

Do/did you want to stop self-injuring?

Yes
No

Urges

How often have you thought about injuring yourself or about how you want to injure yourself..

	Never (0 times)	Rarely (1-2 times)	Occasionally (3-4 times)	Sometimes (5-10 times)	Often (11-20 times)	Most of the time (3-6 times)	Nearly all the time (more than 6 times a day)
In the last year							
In the last month							

At the most severe point, how strong was your urge to self-injure..

	None	Slight	Mild	Moderate	Strong but easily controlled	Strong and difficult to control	Strong and would have self-injured if able to
In the last year	○	○	○	○	○	○	○
In the last month	○	○	○	○	○	○	○

How much time have you spent thinking about injuring yourself or about how you want to injure yourself..

	None	Less than 20 min	21-45 mins	46-90 mins	90 mins to 3 hours	3-6 hours	More than 6 hours
In the last year	○	○	○	○	○	○	○
In the last month	○	○	○	○	○	○	○

How difficult was it to resist injuring yourself..

	Extremely easy	Moderately easy	Slightly easy	Neither easy nor difficult	Slightly difficult	Moderately difficult	Extremely difficult
In the last year	○	○	○	○	○	○	○
In the last month	○	○	○	○	○	○	○

Keeping in mind your responses to the previous questions, please rate your overall average urge or desire to injure yourself..

	Never had the urge to self injure	Rarely had the urge to self injure	Occasionally had the urge to self injure	Sometimes had the urge to self injure	Often had the urge to self injure	Had the urge to self injure most of the time	Had the urge to self injure nearly all the time
In the last year	○	○	○	○	○	○	○
In the last month	○	○	○	○	○	○	○

When I self-injure I am/was...

	Not relevant	Somewhat relevant	Very relevant
calming myself down			
creating a boundary between myself and others			
punishing myself			
giving myself a way to care for myself (by attending to the wound)			
causing pain so I will stop feeling numb			
avoiding the impulse to attempt suicide			
doing something to generate excitement or exhilaration			
bonding with peers			
letting others know the extent of my emotional pain			
seeing if I can stand the pain			
creating a physical sign that I feel awful			
getting back at someone			
ensuring I am self-sufficient			
releasing emotional pressure that has built up inside of me			
demonstrating that I am separate from other people			
expressing anger towards myself for being worthless or stupid			
creating a physical injury is easier to care for than my emotional distress			
trying to feel something (as opposed to nothing) even if it is physical pain			
responding to suicidal thoughts without actually attempting suicide			
entertaining myself or others by doing something extreme			

	Not relevant	Somewhat relevant	Very relevant
fitting in with others	○	○	○
seeking care or help from others	○	○	○
demonstrating I am tough or strong	○	○	○
proving to myself that emotional pain is real	○	○	○
getting revenge against others	○	○	○
demonstrating that I do not need to rely on others for help	○	○	○
reducing anxiety, frustration, anger, or other overwhelming emotions	○	○	○
establishing a barrier between myself and others	○	○	○
reacting to feeling unhappy with myself or disgusted with myself	○	○	○
allowing myself to focus on treating the injury, which can be gratifying or satisfying	○	○	○
making sure I am alive when I don't feel real	○	○	○
putting a stop to suicidal thoughts	○	○	○
pushing my limits in a manner akin to skydiving or other extreme activities	○	○	○
creating a sign of friendship or kinship with friends or loved ones	○	○	○
keeping a loved one from leaving or abandoning me	○	○	○
proving I can take the physical pain	○	○	○
signifying the emotional distress I'm experiencing	○	○	○
trying to hurt someone close to me	○	○	○
establishing that I am autonomous/independent	○	○	○

	Not relevant	Somewhat relevant	Very relevant
fitting in with others	○	○	○
seeking care or help from others	○	○	○
demonstrating I am tough or strong	○	○	○
proving to myself that emotional pain is real	○	○	○
getting revenge against others	○	○	○
demonstrating that I do not need to rely on others for help	○	○	○
reducing anxiety, frustration, anger, or other overwhelming emotions	○	○	○
establishing a barrier between myself and others	○	○	○
reacting to feeling unhappy with myself or disgusted with myself	○	○	○
allowing myself to focus on treating the injury, which can be gratifying or satisfying	○	○	○
making sure I am alive when I don't feel real	○	○	○
putting a stop to suicidal thoughts	○	○	○
pushing my limits in a manner akin to skydiving or other extreme activities	○	○	○
creating a sign of friendship or kinship with friends or loved ones	○	○	○
keeping a loved one from leaving or abandoning me	○	○	○
proving I can take the physical pain	○	○	○
signifying the emotional distress I'm experiencing	○	○	○
trying to hurt someone close to me	○	○	○
establishing that I am autonomous/independent	○	○	○

Expectancies

We are interested in your thoughts about what might happen if you were to self-injure. We are interested in responses from both those with and without lived experience of self-injury.

How likely is it that after self-injuring:

	Extremely unlikely	Somewhat unlikely	Somewhat likely	Extremely likely
1. I would feel less frustrated with the world	○	○	○	○
2. My friends would be disgusted	○	○	○	○
3. I could make people do things for me	○	○	○	○
4. I would feel physical pain	○	○	○	○
5. I would feel like a failure	○	○	○	○
6. I would feel better about myself	○	○	○	○
7. My friends would not approve of me	○	○	○	○
8. It would be easier to get what I want from others	○	○	○	○
9. It would hurt	○	○	○	○
10. I would feel ashamed	○	○	○	○
11. I would feel calm	○	○	○	○
12. My family would be disgusted	○	○	○	○
13. Other people would notice and offer sympathy	○	○	○	○
14. I would not be aware of my physical pain	○	○	○	○
15. I would feel numb	○	○	○	○
16. The future would seem more optimistic	○	○	○	○
17. My parents would be angry	○	○	○	○
18. I would feel that it would be easier to open up and express my feelings	○	○	○	○
19. I would not feel any pain	○	○	○	○
20. I would feel emotionally drained	○	○	○	○
21. I would feel relieved	○	○	○	○
22. Other people would notice and think I was a freak	○	○	○	○
23. I would get care from others	○	○	○	○
24. The pain would be intense	○	○	○	○

1. I would hate myself

Self-efficacy to resist NSSI

In this section we are interested in your perceived capabilities for overcoming the urge to self-injure, across a variety of contexts. Please indicate how confident you feel in resisting the urge to self-injure in each of these situations. Remember we are looking for responses from those both with and without lived experience of self-injury.

	Not confident at all	Somewhat confident	Mostly confident	Extremely confident
1. When I feel worthless				
2. When I think I am a burden to someone else				
3. When I feel depressed				
4. When I don't want to live				
5. When I have a strong urge				
6. When I can't stop going over and over things in my mind				
7. When I feel anxious				
8. When I feel nervous				
9. When I feel relaxed				
10. When I am out with friends				
11. When I am at work/school				
12. When someone reassures me				
13. When I feel in control of my situation				
14. When I feel connected to my body				
15. When I know I can talk to a friend about my problems				
16. When I am motivated to resist self-injury				
17. When I see images of self-injury				
18. When I am reminded of self-injury through a video or song				
19. When I see a reminder of a past time I self-injured				
20. When I see someone else has self-injury wounds				
21. When I see my own scars				
22. When I see my own injuries				
23. When I have seen a post online about self-injury				
24. When I have seen someone else has self-injury scars				

Please read each of the statements below carefully and indicate which best fits how certain you are about how you would act in each of the following situations.

	Very uncertain						Very certain
1. How certain are you that you will not self-injure in the future?							
2. If at some point in the future you had self-injurious thoughts, how certain are you that you could resist self-injury?							
3. If at some point in the future you had self-injurious thoughts, how certain are you that you could resist self-injury if you were using alcohol or other drugs?							
4. How certain are you that you could control future thoughts of self-injury if you were experiencing physical pain?							
5. How certain are you that you could control future self-injurious thoughts if you lost an important relationship?							
6. How certain are you that you could control future self-injurious thoughts if you lost a job, could not find employment, or suffered a financial crisis?							

General Self-Efficacy

In this section we are interested in your capabilities to overcome life's obstacles.

	Not at all true	Hardly true	Moderately true	Exactly true
1. I can always manage to solve difficult problems if I try hard enough				
2. If someone opposes me, I can find the means and ways to get what I want				
3. It is easy for me to stick to my aims and accomplish my goals				
4. I am confident that I could deal efficiently with unexpected events				
5. Thanks to my resourcefulness, I know how to handle unforeseen circumstances				
6. I can solve most problems if I invest the necessary effort				
7. I can remain calm when facing difficulties because I can rely on my coping abilities				
8. When I am confronted with a problem, I can usually find several solutions				
9. If I am in trouble I can usually think of a solution				
10. I can usually handle whatever comes my way				

Approach/avoid self-injury

The following questions refer to how much or how little you have wanted to self-injure. We are interested in responses from both those who have, and those who have not engaged in self-injury before.

Thinking about the last year, how strongly do you agree with each of the following statements?

	Not at all	1	2	3	4	5	6	7	Very strongly
1. I would have liked to self-injure									
2. I deliberately occupied myself so I would not self-injure									
3. I was thinking about self-injury a lot of the time									
4. I did things to take my mind off self-injury									
5. I wanted to self-injure as soon as I had the chance									
6. I avoided places in which I might have been tempted to self-injure									

Thinking about the last month, how strongly do you agree with each of the following statements?

	Not at all	1	2	3	4	5	6	7	Very strongly
1. I would have liked to self-injure									
2. I deliberately occupied myself so I would not self-injure	○		○		○		○		○
3. I was thinking about self-injury a lot of the time	○		○		○		○		○
4. I did things to take my mind off self-injury	○		○		○		○		○
5. I wanted to self-injure as soon as I had the chance	○		○		○		○		○
6. I avoided places in which I might have been tempted to self-injure	○		○		○		○		○
	○		○		○		○		○

Exposure to NSSI

The following questions will ask about your exposure to non-suicidal self-injury (NSSI).
For each of the statements below, please indicate the degree to which these forms of exposure to NSSI occur for you.

	Never	Sometimes	Often	Frequently
1. I am personally familiar with individuals who engage/have engaged in some form of NSSI.				
2. I have heard references to NSSI in music lyrics.				
3. I have seen references to different forms of NSSI in movies.				
4. I have seen, heard, or read news reports about NSSI.				

1. I have seen references to NSSI on TV (sitcoms, dramas, serials - not movies on TV or news programs).

2. I have friends who engage in NSSI.

3. I have talked about NSSI with other people (regardless of whether they engaged in the behavior).

4. I have talked about NSSI with people who have done it.

Beliefs about emotion

In this section we are interested in the beliefs you have around emotion. For each of the statements below, please indicate the degree to which you agree or disagree.

	Strongly disagree	Mildly Disagree	Agree and Disagree Equally	Mildly Agree	Strongly Agree
1. Emotions operate like a floodgate that is either open or closed. In other words, emotions are either “on” or “off.”					
2. Emotions can either be expressed entirely or hidden from others—it isn’t possible to share only part of an emotional response.					
3. People can learn to control/regulate their emotions.					
4. People are ruled by their emotions.					
5. Putting forth effort to alter emotional experience is valuable.					
6. When a person has a strong emotional reaction to another person, they will always feel that way about that other person.					
7. When people are feeling down, they have to wait for a better mood to arrive before they can be productive.					
8. People would be better off if they took time to figure out where their emotions come from.					
9. When strong emotions are present, they dictate what a person says or does.					
10. When an emotion comes along, it will continue unless there is a change in the environment.					
11. When people acknowledge their emotions, the emotions will completely take them over.					
12. Learning how to alter strong emotions is a worthwhile pursuit.					
13. It is possible, with effort, to alter strong feelings in any situation.					
14. When a person feels really angry, it’s virtually impossible to not take the anger out on people or objects nearby.					
15. People are slaves to their emotions.					
16. People would be better off if they spent more time learning how to control their emotions.					
17. Strong emotions will make people do things they wouldn’t normally do.					
18. When feelings of sadness take over, a person can’t really do anything but wallow in the misery.					
19. People benefit from learning how to regulate their feelings					
20. It’s virtually impossible for people to act opposite to the way they feel.					
21. Emotions make people lose control.					

Personality

In this section we are interested in aspects of your personality. Please read each statement and indicate how much the statement applies to you.

	Very Inaccurate	Moderately Inaccurate	Neither Inaccurate not Accurate	Moderately Accurate	Very Accurate
1. I am the life of the party	○	○	○	○	○
2. I sympathise with others feelings	○	○	○	○	○

3. I get chores done right away	○	○	○	○	○
4. I have frequent mood swings	○	○	○	○	○
5. I have a vivid imagination	○	○	○	○	○
6. I do not talk a lot	○	○	○	○	○
7. I am not interested in other people's problems	○	○	○	○	○
8. I often forget to put things back in their proper place	○	○	○	○	○
9. I am relaxed most of the time	○	○	○	○	○
10. I am not interested in abstract ideas	○	○	○	○	○
11. I talk to a lot of different people at parties	○	○	○	○	○
12. I feel other's emotion	○	○	○	○	○
13. I like order	○	○	○	○	○
14. I get upset easily	○	○	○	○	○
15. I have difficulty understanding abstract ideas	○	○	○	○	○
16. I keep in the background	○	○	○	○	○
17. I am not really interested in others	○	○	○	○	○
18. I make a mess of things	○	○	○	○	○
19. I seldom feel blue	○	○	○	○	○
20. I do not have a good imagination	○	○	○	○	○

Avoidance of negative emotion

In this section we are interested in how you respond to emotion. Please indicate the extent to which you agree or disagree with each of the following statements

	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree
1. The key to a good life is never feeling any pain	○	○	○	○	○	○
2. I am quick to leave situations that make me uneasy	○	○	○	○	○	○
3. I try to put unpleasant memories out of mind	○	○	○	○	○	○
4. I feel disconnected from my emotions	○	○	○	○	○	○
5. I won't do something unless I absolutely have to	○	○	○	○	○	○
6. Fear/anxiety won't stop me from doing important things	○	○	○	○	○	○
7. I would give up a lot not to feel bad	○	○	○	○	○	○
8. I rarely do things that might upset me	○	○	○	○	○	○
9. It's hard for me to know what I am feeling	○	○	○	○	○	○
10. I try to put off unpleasant tasks for as long as possible	○	○	○	○	○	○
11. I go out of my way to avoid uncomfortable situations	○	○	○	○	○	○
12. A big goal is to be free from painful emotions	○	○	○	○	○	○
13. I work hard to keep out upsetting feelings	○	○	○	○	○	○
14. I won't do something if I have doubts	○	○	○	○	○	○
15. Pain always leads to suffering	○	○	○	○	○	○

Difficulties in emotion regulation

Please consider the following items and indicate which how much each applies to you

	Almost never (0-10%)	Sometimes (11-35%)	About half the time (35-65%)	Most of the time (66-90%)	Almost always (99-100%)
1. When I'm upset, it takes me a long time to feel better	○	○	○	○	○
2. When I'm upset, I believe there is nothing I can do to make myself feel better	○	○	○	○	○
3. When I'm upset, I believe that I will end up feeling very depressed	○	○	○	○	○
4. When I'm upset, I become embarrassed for feeling that way	○	○	○	○	○
5. When I'm upset, I become guilty for feeling that way	○	○	○	○	○
6. When I'm upset, I become irritated at myself for feeling that way	○	○	○	○	○
7. When I'm upset, I become out of control	○	○	○	○	○
8. When I'm upset, I lose control over my behaviour	○	○	○	○	○
9. When I'm upset, I have difficulty controlling my behaviour	○	○	○	○	○
10. When I'm upset, I have difficulty focusing on other things	○	○	○	○	○
11. When I'm upset, I have difficulty concentrating	○	○	○	○	○
12. When I'm upset, I have difficulty getting work done	○	○	○	○	○
13. I care about what I am feeling	○	○	○	○	○
14. When I'm upset, I acknowledge my emotions	○	○	○	○	○
15. I pay attention to how I feel	○	○	○	○	○
16. I am confused about how I feel	○	○	○	○	○
17. I have difficulty making sense out of my feelings	○	○	○	○	○
18. I have no idea how I am feeling	○	○	○	○	○

Psych distress

Please read each statement and indicate how much the statement has applied to you over the last 4 weeks. There are no right or wrong answers.

	None of the time	A little of the time	Some of the time	Most of the time	All of the Time
1. About how often did you feel tired out for no reason?	○	○	○	○	○
2. About how often did you feel nervous?	○	○	○	○	○
3. About how often did you feel so nervous that nothing could calm you down?	○	○	○	○	○
4. About how often did you feel hopeless?	○	○	○	○	○
5. About how often did you feel restless or fidgety?	○	○	○	○	○
6. About how often did you feel so restless you could not sit still?	○	○	○	○	○
7. About how often did you feel depressed?	○	○	○	○	○
8. About how often did you feel that everything was an effort?	○	○	○	○	○
9. About how often did you feel so sad that nothing could cheer you up?	○	○	○	○	○
10. About how often did you feel worthless?	○	○	○	○	○

Help Seeking

Below is a list of people who you might seek help or advice from if you were experiencing a personal or emotional problem. Click any of these who you have gone to for advice or help for a personal or emotional problem.

- [ ] Partner (e.g. significant boyfriend or girlfriend)
- [ ] Friend (not related to you)
- [ ] Parent
- [ ] Other relative / family member
- [ ] Mental health professional (e.g., school counsellor, psychologist, psychiatrist)
- [ ] Phone help line (e.g., Lifeline, Kids Help Line)
- [ ] Family doctor / GP
- [ ] Teacher
- [ ] Other (Please specify)
- [ ] I have not sought help from anyone for an emotional or behavioural problem

Please briefly describe the type of problem you went to them about.

How helpful was this person when you sought help for an emotional or personal problem?

	1 - Not at all helpful	2	3	4	5	6 - Somewhat helpful	7	8	9	10	11 - Extremely helpful
Partner	○	○	○	○	○	○	○	○	○	○	○
Friend	○	○	○	○	○	○	○	○	○	○	○
Parent	○	○	○	○	○	○	○	○	○	○	○
Other relative	○	○	○	○	○	○	○	○	○	○	○
Mental health professional	○	○	○	○	○	○	○	○	○	○	○
Phone help line	○	○	○	○	○	○	○	○	○	○	○
Family doctor/GP	○	○	○	○	○	○	○	○	○	○	○
Teacher	○	○	○	○	○	○	○	○	○	○	○

Below is a list of people who you might seek help or advice from for self-injury specifically. Please click any of these who you have gone to for advice or help for self-injury.

- [ ] Partner (e.g. significant boyfriend or girlfriend)
- [ ] Friend (not related to you)
- [ ] Parent
- [ ] Other relative / family member
- [ ] Mental health professional (e.g., school counsellor, psychologist, psychiatrist)
- [ ] Phone help line (e.g., Lifeline, Kids Help Line)
- [ ] Family doctor / GP
- [ ] Teacher
- [ ] Other (Please specify)
- [ ] I have not sought help from anyone for self-injury

How helpful was this person when you sought help for self-injury?

	1 - Not at all helpful	2	3	4	5	6 - Somewhat helpful	7	8	9	10	11 - Extremely helpful
Partner	○	○	○	○	○	○	○	○	○	○	○
Friend	○	○	○	○	○	○	○	○	○	○	○
Parent	○	○	○	○	○	○	○	○	○	○	○
Other relative	○	○	○	○	○	○	○	○	○	○	○
Mental health professional	○	○	○	○	○	○	○	○	○	○	○
Phone help line	○	○	○	○	○	○	○	○	○	○	○
Family doctor/GP	○	○	○	○	○	○	○	○	○	○	○
Teacher	○	○	○	○	○	○	○	○	○	○	○

Below is a list of people who you might seek help or advice from if you were experiencing a personal or emotional problem. Please indicate how likely it is it that you would seek help from each of these people for a personal or emotional problem in future?

	Extremely Unlikely	Moderately Unlikely	Unlikely	Neither Likely or Unlikely	Likely	Moderately Likely	Extremely Likely
Partner (e.g. significant boyfriend or girlfriend)	○	○	○	○	○	○	○
Friend (not related to you)	○	○	○	○	○	○	○
Parent	○	○	○	○	○	○	○
Other relative / family member	○	○	○	○	○	○	○
Mental health professional (e.g., school counsellor, psychologist, psychiatrist)	○	○	○	○	○	○	○
Phone help line (e.g., Lifeline, Kids Help Line)	○	○	○	○	○	○	○
Family doctor / GP	○	○	○	○	○	○	○
Teacher	○	○	○	○	○	○	○
Other (Please specify)	○	○	○	○	○	○	○
I would not seek help from anyone for an emotional or personal problem. (Please indicate why you would not in the space provided)	○	○	○	○	○	○	○

Below is a list of people who you might seek help or advice from for engaging in self-injury specifically. Please indicate how likely it is it that you would seek help from each of these people for help with self-injury in future?

	Extremely Unlikely	Moderately Unlikely	Unlikely	Neither Likely or Unlikely	Likely	Moderately Likely	Extremely Likely
Partner (e.g. significant boyfriend or girlfriend)	○	○	○	○	○	○	○
Friend (not related to you)	○	○	○	○	○	○	○
Parent	○	○	○	○	○	○	○
Other relative / family member	○	○	○	○	○	○	○
Mental health professional (e.g., school counsellor, psychologist, psychiatrist)	○	○	○	○	○	○	○
Phone help line (e.g., Lifeline, Kids Help Line)	○	○	○	○	○	○	○
Family doctor / GP	○	○	○	○	○	○	○
Teacher	○	○	○	○	○	○	○
Other (Please specify)	○	○	○	○	○	○	○
I would not seek help from anyone for help with self-injury. (Please indicate why you would not in the space provided)	○	○	○	○	○	○	○

Below is a list of people who you might seek help or advice from if you were to ever engage in self-injury. Please indicate how likely it is it that you would seek help from each of these people, if you were to ever require help for self-injury

	Extremely Unlikely	Moderately Unlikely	Unlikely	Neither Likely or Unlikely	Likely	Moderately Likely	Extremely Likely
Partner (e.g. significant boyfriend or girlfriend)	○	○	○	○	○	○	○
Friend (not related to you)	○	○	○	○	○	○	○
Parent	○	○	○	○	○	○	○
Other relative / family member	○	○	○	○	○	○	○
Mental health professional (e.g., school counsellor, psychologist, psychiatrist)	○	○	○	○	○	○	○
Phone help line (e.g., Lifeline, Kids Help Line)	○	○	○	○	○	○	○
Family doctor / GP	○	○	○	○	○	○	○
Teacher	○	○	○	○	○	○	○
Other (Please specify)	○	○	○	○	○	○	○
I would not seek help from anyone for help with self-injury. (Please indicate why you would not in the space provided)	○	○	○	○	○	○	○

Reasons to stop self-injury

The following is a list of reasons some people give for not engaging in self-injury. We would like to know how important each reason is for you right now for not engaging in self-injury.

	Not at all important	Slightly important	Moderately important	Quite important	Extremely important
1. Self-injury makes me feel like there is something wrong with me.	○	○	○	○	○
2. I don't want to make my body look bad.	○	○	○	○	○
3. My self-injury is getting worse (more frequent, more serious injury, or more urges).	○	○	○	○	○
4. I don't want to upset or hurt my friends, family or other loved ones.	○	○	○	○	○
5. I want to be supportive of a friend/romantic partner/family member.	○	○	○	○	○
6. Someone is forcing me to stop.	○	○	○	○	○
7. I replaced self-injury with other self-damaging behaviors (eating disorders, substance use, etc.).	○	○	○	○	○
8. I would feel bad about myself as a person if I self-injured.	○	○	○	○	○
9. The scars are problematic.	○	○	○	○	○
10. My self-injury is becoming hard to control.	○	○	○	○	○
11. Other people want me to quit.	○	○	○	○	○
12. I don't want to be punished if I'm caught.	○	○	○	○	○
13. I would be mad or angry with myself if I self-injured.	○	○	○	○	○
14. I want my body to look good.	○	○	○	○	○
15. I am trapped in a cycle of bad feelings and self-injury.	○	○	○	○	○
16. I don't want to disappoint or let other people down.	○	○	○	○	○
17. I don't want to have to worry about hiding the scars.	○	○	○	○	○
18. I promised someone I would stop.	○	○	○	○	○

19. I would feel guilty.	○	○	○	○	○
20. I care about my body.	○	○	○	○	○
21. I'm afraid someone might question me about what I did.	○	○	○	○	○
22. I want to set a healthy example for a friend, family member or romantic partner.	○	○	○	○	○
23. I could be kicked out of my treatment program if I self-injure.	○	○	○	○	○
24. If I go into the hospital again I'll miss work or school.	○	○	○	○	○
25. I feel in control of my emotions or my life.	○	○	○	○	○
26. If I start again, I might not be able to stop.	○	○	○	○	○
27. I have supportive and caring people around me who can help me when I feel the urge.	○	○	○	○	○
28. I couldn't self-injure safely.	○	○	○	○	○
29. I have too many injuries already.	○	○	○	○	○
30. I don't want other people to judge me.	○	○	○	○	○
31. I don't want other people to gossip or spread rumors about me.	○	○	○	○	○
32. I don't want to lose too much blood or pass out.	○	○	○	○	○
33. I want my scars to heal.	○	○	○	○	○
34. I don't want to get an infection.	○	○	○	○	○
35. I just don't need to or want to self-injure anymore.	○	○	○	○	○
36. The scars make doctors visits uncomfortable.	○	○	○	○	○
37. I have the willpower to stop.	○	○	○	○	○
38. I feel better about myself.	○	○	○	○	○
39. I want to be kind to myself an not abuse myself.	○	○	○	○	○
40. I feel like I have to stop self-injuring.	○	○	○	○	○

Alternative coping strategies

In this question we are interested in your coping strategies. Please indicate how often you tend to do the following:

	I don't do this at all	I do this sometimes	I do this a lot
I concentrate my efforts on doing something about the situation I'm in.	○	○	○
I take action to try to make the situation better	○	○	○
I try to come up with a strategy about what to do	○	○	○
I think hard about what steps to take	○	○	○
I try to see it in a different light, to make it seem more positive	○	○	○
I look for something good in what is happening	○	○	○
I accept the reality of the fact that it has happened	○	○	○
I learn to live with it	○	○	○
I make jokes about it	○	○	○
I make fun of the situation	○	○	○
I try to find comfort in my religion or spiritual beliefs	○	○	○
I pray or meditate	○	○	○
I get emotional support from others	○	○	○
I get comfort and understanding from someone	○	○	○
I try to get advice or help from other people about what to do	○	○	○
I get help and advice from other people	○	○	○
I turn to work or other activities to take my mind off things	○	○	○
I do something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping	○	○	○
I say to myself "this isn't real."	○	○	○

I refuse to believe that it has happened	○	○	○
I say things to let my unpleasant feelings escape	○	○	○
I express my negative feelings	○	○	○
I use alcohol or other drugs to make myself feel better	○	○	○
I use alcohol or other drugs to help me get through it	○	○	○
I give up trying to deal with it	○	○	○
I give up the attempt to cope	○	○	○
I criticise myself	○	○	○
I blame myself for things that happened	○	○	○

Safety Plan

Are you able to detail any strategies that have been useful in preventing you from engaging in self-injury when you have felt the urge to? Please provide as many strategies in as much or as little detail as you like.

Can you think of any strategies you may suggest to somebody who wants to self-injure that may help them to refrain from doing so? Please provide as many strategies in as much or as little detail as you like.

If you are experiencing any emotional distress and would like to write down any strategies that may have come to mind in the previous question, we encourage you do so and carry this with you throughout the day. If you wish to talk to anyone about any of the topics raised in this survey you can find local support here.

Self injury fact sheet
Shedding light on self-injury
Self-injury and recovery resources
Self-injury outreach and support
Stress management

Would you be interested in participating in an interview about your experiences of self-injury? If you are, please consent to being contacted by leaving your contact details here. These details will only ever be used to contact you if we are conducting an interview study and will be stored on a password protected computer, completely separate from your survey responses.

Email address
Phone number

Please click here to be directed to a separate survey where you can enter your name and student ID so we can allocate you SONA points. Your name and ID must be entered in order for us to award points but are not linked to your survey responses.

Thank you for taking the time to complete this survey, your participation is a great contribution. You are eligible to go into a draw for 1 of 20 $50 gift cards. Please provide your contact details if you would like to enter this draw (feel free to use an alias if you're uncomfortable providing your first name). Once contacted, your information will immediately be deleted from the data set.

Thank you once again for helping us with this project.

First name

Email address or phone number

Appendix K

Chapter 4 Information Sheet

Exploring Experiences of Non-Suicidal Self-Injury Interview Information Sheet

Nicole Gray (Curtin University)
Associate Professor Mark Boyes (Curtin University)
Professor Penelope Hasking (Curtin University)

Non-suicidal self-injury is the deliberate damage to one's own body (e.g. cutting, burning) without conscious suicidal intent. Self-injury is a behaviour that is engaged in for a variety of reasons. The most common reason is to reduce overwhelming and unwanted feelings. Research has been used to identify such reasons for someone to self-injure, and what might leads to the behaviour, but more work needs to be done on what may lead to a person stopping, or continuing the behaviour. In this study, we are looking specifically at individual experiences surrounding self-injury, from those who engage in it currently, or have previously engaged in self-injury repeatedly.

You will be asked to participate in a face-to-face interview, where you will be asked questions about your experiences of self-injury, including the nature and extent of your engagement in the behaviour. We will also ask you to describe any advantages and disadvantages you feel are relevant in regards to stopping or continuing the behaviour. The interview is expected to take approximately 90 minutes.

It is unlikely that participating in this study will hold any significant risks beyond everyday experience, although, thinking and talking about self-injury may be confronting or distressing due to certain memories associated with the topic. Participation in this study is voluntary. If it does become too difficult, you will be able to take breaks, or completely stop the interview from continuing when you feel necessary for your wellbeing. If you decide you do not want the information you have shared to be included in the study, you are able to contact us and make that request up to two weeks after the interview takes place. Upon completion of the interview, you will be given a list of contact details for support services should you experience any emotional distress. In previous studies of this nature, feedback has indicated that participants value the opportunity to use their personal experiences to help others. Curtin University students seeking SONA points will be rewarded with 6 SONA points for participating in the interview.

The vocal content of this interview will be recorded, however recordings will be transcribed and the source of data will be unidentifiable. All recordings and data will be kept confidential, and nobody other than the researchers will have access. Once the vocal recordings are transcribed, they will be immediately deleted. In accordance with Curtin University regulations, all confidential data will be kept on a password protected file, on a dedicated research drive for 7 years, before being destroyed. A report of the findings from this study may be submitted for publication. This may include direct quotes from your answers, however, your individual responses will not be identifiable and all reported data will remain strictly anonymous. Unidentifiable data may be deposited in a public repository if required for publication to the journal. If you would like a copy of the findings please contact Nicole.Gray@postgrad.curtin.edu.au in June 2022.

If you have any questions of comments please contact:

Nicole Gray: Nicole.Gray@postgrad.curtin.edu.au

Thank you for taking the time to consider participating in this survey.

Nicole Gray, Sophie Haywood, Mark Boyes, & Penny Hasking

I have received information regarding this research. I believe I understand the purpose of this study and I voluntarily consent to take part in this study.

☐ I agree
☐ I do not agree

Signed _____ Date_____

If you are experiencing distress currently and need to talk to someone immediately, you can find support at https://checkpointorg.com/global/

Curtin University Human Research Ethics Committee (HREC) has approved this study (HREC number HRE2020-0237). Should you wish to discuss the study with someone not directly involved, in particular, any matters concerning the conduct of the study or your rights as a participant, or you wish to make a confidential complaint, you may contact the Ethics Officer on (08) 9266 9223 or the Manager, Research Integrity on (08) 9266 7093 or email hrec@curtin.edu.au. Please note this office is located in Perth Australia. The office is open during business hours (GMT+8).

USEFUL RESOURCES

1. Beyond Blue
Web: http://www.beyondblue.org.au
Phone: 1300 22 4636

When you call the *beyondblue* info line, you will speak to a qualified mental health professional who can provide information on depression, anxiety and related disorders, and can discuss a range of referral options, for example where you can access treatment services in your area.

The *beyondblue* info line service is available 24 hours a day, 7 days a week. Depending on your circumstances and reason for your call, the outcome may vary.

You may be given:
• Relevant local crisis or psychiatric triage service details or
• The numbers of other relevant telephone counselling services or
• Alternative referral options for assistance.

The *beyondblue* info line is an information and referral service. It is not a crisis or a telephone counselling support service, however, staff can help you with referral options, and relevant information about how to access mental health services in Australia.

All *beyondblue* info line staff members are professionally qualified with relevant tertiary education and or postgraduate degrees either in psychology, counselling or social work. *beyondblue* info line staff members also have relevant experience in mental health.

2. Kids Helpline (<25 years old)
Web: http://www.kidshelp.com.au/
Phone: 1800 55 1800

When you contact Kids Helpline, you will talk directly with one of their counsellors. They are available 24 hours a day, 7 days a week. Web and email counselling is also available. Kids Helpline counsellors are trained to work with young people and any issues they may be facing. They are specialised in:

• Talking with you about what has been happening and how you think or feel about it.
• Listening to and understanding things from your point of view.
• Helping you to figure out some ideas of how you might be able to handle things.
• Helping you to decide what to do.
• Providing you with information and support to find other services that can help.

When you call, you can choose to speak to either a male or female counsellor. If you call more than once, you can ask to talk to the same counsellor again**.**

3. Lifeline
Web: http://www.lifeline.org.au/

Phone: 13 11 14 (24 hrs)

Lifeline is a confidential telephone crisis support service available 24/7 from a landline, payphone or mobile. Anyone across Australia experiencing a personal crisis or thinking about suicide can contact Lifeline. Regardless of age, gender, ethnicity, religion or sexual orientation trained volunteers are ready to listen, provide support and referrals. Trained Telephone Crisis Supporters will answer your call and:
• Listen to your situation.
• Provide immediate support.
• Assist to clarify options and choices available to you.
• Provide you with referral information for other services in your local area.

2. Black Dog Institute
Web: http://www.blackdoginstitute.org.au/

The Black Dog Institute website provides information on mood and anxiety disorders, and suggestions of how to ask for help and where to go to get it. It also includes information regarding what to do if you think someone you care about needs help.

3. See your psychologist, or your GP for a psychological referral.
Your GP can place you on a mental health care plan that can fully cover or subsidise, 10 sessions with a psychologist per year.

4. Mental Health Emergency Response Line (MHERL).
Web: https://emhs.health.wa.gov.au/Hospitals-and-Services/Mental-Health
Phone: 1300 555 788 (Metro)
1800 676 822 (Peel)

If you are in need of emergency, rapid mental health services. MHERL clinicians provide assessment, specialist intervention, and can refer to local mental health services. A mental health emergency can include:

• When you feel you need urgent assistance.
• Significant others of individuals experiencing mental health issues.
• Members of the public who have witness a traumatic, mental health related, event and require assistance.

You can also contact the local mental health services listed, if it is not an emergency. For any life threatening situations, you should always contact 000 first.

Self-help Books:
• Feeling Better: A Guide to Mood Management. By Anthony Kidman, PhD, available via website: http://w.w.w.science.uts.edu.au/centres/psych/hpubooks/feelbetr.html and other local booksellers. Cost $14.95.
• Behind Happy Faces: Taking Charge of Your Mental Health - A Guide for Young Adults by Ross Szabo and Melanie Hall (Volt Press, 2007). Cost: $10 from www.fishpond.com
• Thoughts & Feelings: Taking Control of Your Moods and Your Life: A Workbook of Cognitive

Behavioural Techniques by Matthew McKay, Patrick Fanning, Martha Davis

Websites:

- Shedding Light on Self-Injury: www.self-injury.org.au
- Cornell Research Program: http://www.selfinjury.bctr.cornell.edu/index.html
- Self-Injury Outreach & Support: http://sioutreach.org/
- S.A.F.E Alternatives®: www.selfinjury.com
- Life Signs: www.selfharm.org

Appendix L

Chapter 4 Consent

I have received information regarding this research. I believe I understand the purpose of this study and I voluntarily consent to take part in this study.

☐ I agree
☐ I do not agree

Signed _____ Date_____

Appendix L
Chapter 4 Interview Protocol

Research Question: Exploring experiences of ambivalence within a recovery context.

Hi _____ , thank you so much for taking the time to come in today. Did you manage to find it okay? As you will know from the advertisement on SONA, the interview is about your lived experience of non-suicidal self-injury. Rather than think of it as an interview though, consider it more of a conversation about your experience.

Before we get started I just need to run through a couple of things with you. Firstly, did you get an opportunity to read through the information sheet? [if yes], do you have any questions about the study? [if no] I will give you the opportunity now to have a read through it [then] Do you have any questions regarding the study?

To clarify, you are not obligated in any way to take part in this study. It is completely voluntary. If you do decide to go ahead with the interview and during the interview change your mind, that is completely okay. You are free to stop the interview at any time and it will not impact your relationship with the university. I understand how difficult it can be to talk about these topics but we have found that people often report enjoying the experience. If at any point you do not want to answer a question simply state, "I do not want to answer that question" and we will move on. If you need to take a break at any point, please let me know and we will pause the recording. Also, if at any point it looks like you are becoming distressed or overwhelmed, I will check in with you and offer you a break.

Once you have given permission to go ahead with the interview, I will start the recording. Once we have finished the interview I will type up our conversation and send it to you. If you wish to change or add anything in to the conversation, that is fine. If you feel that you have more information to add and would like to meet again for another interview, we can arrange that. If after reading the transcript you decide that you would like to withdraw your

interview, just let me know by emailing me and I will remove it. After I have received your transcript back, I will remove any identifying information and delete the audio recording. Once I have analysed the data and started to identify themes, I will not be in a position to remove your data as I will not be able to identify specifically what has come from your interview as all identifiable information will have been removed. How does that sound? Do you have any questions?

Are you still happy to participate in the study? Okay, let's get started. I am going to press record now.

1. What comes to mind when I mention self-injury?

    Prompt: The definition of self-harm/self-injury can with with/without suicidal intent. Non-suicidal self-injury is specifically without suicidal intent, just to be on the same page.

2. I'd like to understand your experiences with self-injury, could you tell me a little bit about that?

    Prompt: Would you say that self-injury is something that is still part your life?

3. Can you tell me about why you self-injure or what it does/did for you?
4. *Still part of their life:* Have there been times where you have particularly wanted to stop self-injuring?

    If it's not part of their life: Thinking back to when you used to self-injure were there times were you particularly wanted to stop self-injuring.

    Yes - Can you tell me more about that?

Kind of – Can you tell me a bit more about that? (explore both sides)

Prompt: Sounds like there were reasons for you wanting to and not wanting to, can you tell me a bit more about that?

No – What would have to happen for that to change?

5. Sounds like you had some reasons to self-injure, do/did you have any reasons to not self-injure?

6. So sounds like you've had some experiences where you didn't want to self-injure but found it difficult not to. On the other hand, can you think of any times where you have not wanted to self-injure, and didn't?

   Yes - What was different about those times?

If needed: Have there been times when you've been unsure about whether you want to keep self-injuring or not?

If needed: Some people say that it's possible to both want to self-injure and not want to self-injure at the same time. What are your thoughts on that idea?

What are the advantages of continuing to engage in self-injury?

What are the disadvantages of stopping self-injury?

What are the disadvantages of continuing to engage in self-injury?

What are the advantages of stopping self-injury?

Before we finish up is there anything else you would like to add?

Thank you for sharing your experiences

How are you feeling right now?

Don't forget those resources if you need

Do you want to do a muscle relaxation exercise, they can be helpful if you're feeling a bit stressed?

Do you want to write down the disadvantages of continuing and advantages of stopping you just came up with on a card?

Do you want to stay for a bit and write out a safety plan with me before you go?