Non-Suicidal Self-Injury and Outward-Directed Injury: An Exploration Into Commonalities in Engagement and Function Within an Aotearoa New Zealand Youth Sample

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ANITA TRAPPITT SMITH

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Abstract

This research explores two detrimental issues confronting an increasing number of young people: non-suicidal self-injury (NSSI) and outward-directed injury (ODI). Researchers and service providers often approach these behaviours in vastly differently ways. NSSI is understood as the direct and deliberate destruction of one's own skin tissue, unsanctioned socially or culturally, occurring in the absence of suicidal intent. This behaviour is often associated with depressed or highly distressed females. Self-directed injury (SDI) of this type often evokes sympathy from others and can result in increased care and support for those engaging in these behaviours. Outward-directed injury (ODI) is a novel term explored through this study and intended to capture harmful behaviours which are directed externally or outward, potentially causing injury to another or damage to an object, seemingly in an aggressive act, with the intent to injure oneself. Examples of ODI include: wall- / object-punching, fighting or other aggressive acts. Stereotypically, ODI behaviours are more often associated with males and tend to be viewed with derision and punitive responses. NSSI and ODI both appear to be predicated by strong emotions and may be used to regulate these. The current study uses an established survey containing two well-validated measures to explore NZ respondents' engagement in and perceptions of these behaviours. Survey data is analysed according to gender, emotional distress, and behaviour functionality. Gender was found to play a significant role in both classes of behaviours with females endorsing SDI more frequently than males and males endorsing ODI more than females. This study also found that people who hurt themselves through either SDI or ODI report more psychological distress than those who do not engage in any self-injurious behaviour. This study also found those who engage in ODI are significantly more distressed than those who engage in SDI, whilst those with dual engagement (employing both SDI and ODI) are most distressed of all. Study findings also showed emotion regulation to be a primary function for both SDI and ODI engagement.

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Table of Contents

Glossary of Terms

This glossary is provided for words presented in Te Reo Māori which are used in this thesis. Their utilisation and definition here are based upon the researcher's experience with these terms from common usage in conjunction with the Te Aka Māori Dictionary website (https://maoridictionary.co.nz/dictionary-info). The researcher respectfully uses these words as tauiwi and tangata te Tiriti in the context of this paper and acknowledges that this glossary is not representative nor exhaustive of the meaning of these words. Ultimately, this glossary is offered to provide more information to those readers who may be unfamiliar with these terms.

Māori	indigenous people of Aotearoa New Zealand
Pākehā	non-Māori New Zealanders, typically of European descent
Rangatahi Māori	indigenous Māori young people, typically adolescents
Tangata Tiriti	non-Māori people who strive to honour the partnership and responsibilities embodied by the Treaty of Waitangi
Tangata Whenua	people of the land connected by ancestry, indigenous people of Aotearoa NZ
Tauiwi	non-Māori of foreign descent, not born in Aotearoa New Zealand
Tikanga	cultural custom or correct protocol

List of Tables

List of Figures

Chapter 1: Introduction

Aotearoa New Zealand (AoNZ) has the second worst youth suicide rate out of 38 countries in the Organization for Economic Cooperation and Development (OECD) (Gromada et al., 2020). Many studies have identified a significant correlation between non-suicidal self-injury (NSSI) and an increased risk of suicide (Aggarwal et al., 2017; Curtis, 2017; Garisch et al., 2020; Hooley et al., 2020; Kimbrel et al., 2018; Klonsky et al., 2014; Lucena et al., 2022; Moran et al., 2024; Nock, 2010; Richmond-Rakerd et al., 2019; Spaan et al., 2022; Steinhoff et al., 2023; Whitlock et al., 2011). In fact, both Fitzgerald and Curtis (2017) and Kimbrel et al. (2018) identify that NSSI has emerged as an even better predictor of suicide than a history of previous attempts. Although NSSI is often conceptualized as inward-directed harm causing injury to oneself, some studies found punching objects to be the most common way males engage in NSSI (Fitzgerald & Curtis, 2017; Whitlock et al., 2011). Therefore, increased knowledge surrounding NSSI could lead to ancillary reduction in youth suicide or other harmful behaviours (Nock, 2010).

Research Overview

This research explores two detrimental issues confronting an increasing number of young people: NSSI and outward-directed injury (ODI). NSSI is typically recognised as the direct and deliberate destruction of one's own skin tissue, unsanctioned by social or cultural mores, and occurring in the absence of suicidal intent (Nock & Favazza, 2010). NSSI is often associated with depressed or highly distressed females. Self-directed injury (SDI) of this type often evokes sympathy from others and can result in increased care and support for those engaging in these behaviours. For analytical purposes within this study, the term self-directed injury (SDI) will be used preferentially to refer to deliberate self-injury where harm is directed internally towards oneself. SDI will incorporate all the traditional defining aspects of NSSI (as identified in Chapter 2) excluding behaviours that will be conceptualised as ODI (as detailed in Chapter 3). Further discussion surrounding the justification of this distinction will

also be provided in later chapters. Alternatively, ODI is a novel term under exploration through this study and refers to a deliberate act of harm directed externally or outward involving some level of intent to injure oneself whilst potentially causing injury or damage to other people or objects. Examples of ODI include: banging or punching objects, fighting, or other aggressive activities engaged with the intention of getting hurt. Stereotypically, ODI behaviours are more frequently associated with males. Those who lash out to harm other people or property tend to be met with hostility or derision and the response to ODI can often be punitive. NSSI and ODI both appear to be predicated by strong emotions and may be used to regulate these.

Fundamentally, the key research question is: to what extent are NSSI (SDI) and ODI ways of dealing with the same issues, especially managing negative emotions? In the absence of research in this area, a comparison of these classes of behaviours may uncover similar antecedents which could inform prevention and intervention applications for both NSSI (SDI) and ODI. Particular attention will be paid to attributes such as age, gender, ethnicity, affect, and reported functions of these self-injurious behaviours (SIBs) to uncover similarities or differences which may help further understanding and contribute to harm minimisation. Ultimately, this research will add to the body of work surrounding NSSI within the AoNZ context and to more clearly define domestic challenges and bespoke solutions.

Chapter 2: Literature Review

This chapter defines key concepts and situates the current study within the context of related literature. It begins with defining non-suicidal self-injury (NSSI) and outward-directed injury (ODI). Concepts such as aggression, dual harm, and emotion regulation which contribute to interpretation are also presented. The importance of how issues are framed is highlighted. The chapter then compares these concepts while highlighting overlaps that are relevant to the current study in an Aotearoa New Zealand (AoNZ) context.

Non-Suicidal Self-Injury (NSSI)

A Historical Perspective of Self-Injury

There is anecdotal evidence that people have engaged in self-injury for thousands of years (Nock, 2010). The terminology used to discuss self-injurious behaviour (SIB) has evolved over time to reflect subtle but crucial differences within the practice. Early clinical understanding was limited and referred to behaviours as self-mutilation which was generally associated with an unsuccessful suicide attempt (Hooley et al., 2020). At its most expansive, self-injurious thoughts and behaviour (SITB) includes any ideation or action that may result in physical or psychological harm regardless of intent to terminate one's life (Nock, 2010; Nock & Favazza, 2010). Deliberate self-harm (DSH), or simply self-harm (SH) are also often employed to capture the wilful intent to injure oneself without differentiating an individual's suicidality (Aggarwal et al., 2017; Garisch & Wilson, 2015; Nock & Favazza, 2010).

More recently, the term non-suicidal self-injury (NSSI) has emerged to narrow the focus of self-injurious behaviour where the intent is to cause injury rather than death (Klonsky et al., 2014). Nuance and variability in the application of these labels represents a significant impediment to scientific research surrounding these behaviours when attempting to compare studies (Nock & Favazza, 2010). Hence, the universal implementation of well-defined constructs is essential for advancement of research (Klonsky et al., 2014). For clarity and consistency, this thesis will utilize the following terminology: self-injurious thoughts and

behaviours (SITB) applies to any ideation or behaviour which is intended to cause injury and/or death; self-injury (SI) applies to any self-inflicted harm regardless of intent to die (as sometimes intent is unknown) as does self-injurious behaviours (SIBs); and non-suicidal self-injury (NSSI) applies to self-inflicted harm where there was specifically no intent to die. Exceptions may occur when describing existing research which employed different terminology; in which case, that author's vocabulary will be employed and any distinctions identified. During data analysis, methods of SIBs are categorised as being self-directed injury (SDI) or outward-directed injury (ODI). Explicit differentiation of these terms is addressed in Chapter 3.

NSSI Defined - What

Nock and Favazza (2010) define NSSI as the direct and deliberate destruction of one's own skin tissue without the intent to complete suicide. Actions are direct in that injury occurs as a distinct consequence of an action taken. Also, actions are deliberate in that they occur as the result of conscious effort as opposed to an accident. To further refine this conceptualization, the authors specifically exclude "socially or culturally sanctioned behaviours that cause destruction or modification of body tissue" (Nock & Favazza, 2010, p. 9). Further exclusions, identified in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), are any self-injurious behaviours which can otherwise be explained by severe psychopathology (psychosis) or developmental disorders (Hooley et al., 2020). These criteria form the foundation upon which a deeper understanding of NSSI can be forged.

Specific acts such as cutting, scratching, and burning one's skin are recognisable forms of non-suicidal self-injury (Garisch et al., 2020; Robinson et al., 2019), being both deliberate and direct. Among these, cutting has been identified as the most common method (Moran et al., 2024; Nock, 2010). Some authors have explored the idea that acts such as wall- / object-punching could be consistent with the above definition of NSSI (Curtis & Terry, 2023; Kimbrel et al., 2018). Minor injuries such as those resulting from lip-biting, nail-biting, or scab-picking are generally excluded from categorization as NSSI for clinical or diagnostic

purposes. In addition, repetitive behaviours like head-banging, tongue- and finger-biting which stem from developmental disabilities or neuropsychiatric disorders, are designated as an exclusive subset labelled stereotypic NSSI (Hooley et al., 2020). Further, severe self-injury such as eye or limb removal is similarly omitted. When occurring concurrently with a psychotic episode or substance misuse, these type of low frequency, catastrophic injuries are labelled as being major NSSI (Nock & Favazza, 2010). Others have explored the intentional destruction of one's own bodily tissue through the elicitation of another being's actions (dubbed NSSI by proxy) as a meaningful clinical construct (Mann et al., 2022). So, even within those behaviours defined as NSSI, there are identified subsets. There are other aspects of NSSI which contribute to our understanding, such as: who, when, and why.

Generalised Demographics of NSSI - Who

Recent research indicates that NSSI is most common in adolescents and young adults and is associated with states of acute emotional and psychological distress (Hasking et al., 2017; McEvoy et al., 2023; Richmond-Rakerd et al., 2019; Robinson et al., 2019; Spaan et al., 2022). Further, there is a consensus that the onset of NSSI typically occurs between the ages of 10 to 15 years of age and becomes significantly less frequent over the age 25 (Klonsky et al., 2014; Moran et al., 2024; Nock, 2010; Robinson et al., 2019; Spaan et al., 2022). Although some studies report a higher prevalence of NSSI among women (Moran et al., 2024; Whitlock et al., 2011); others found no significant difference between genders (Curtis, 2017; Fitzgerald & Curtis, 2017; Garisch & Wilson, 2015; Kimbrel et al., 2018; Steinhoff et al., 2023). A recent study by Curtis and Terry (2023) explores how NSSI reporting rates may be confounded by gender stereotypes and lack of understanding around what behaviours constitute NSSI. Notably, some studies have highlighted a higher prevalence of NSSI among non-heterosexual populations (Robinson & Wilson, 2020; Sornberger et al., 2013; Whitlock et al., 2011). With this basic impression of who might engage in non-suicidal self-injury, it is possible to explore when and why individuals might resort to such behaviour.

Occurrences of NSSI – When and a brief glance at Why

Klonsky (2007) conducted a review of the evidence surrounding deliberate self-injury to find an interesting pattern:

> An integration of results indicates that: (a) acute negative affect precedes self-injury; (b) decreased negative affect and relief are present after self-injury; (c) most self-injurers identify the desire to alleviate negative affect as a reason for self-injuring; and (d) the performance of proxies for self-injury in the laboratory leads to reductions in negative affect and arousal. (p.235)

This may offer a profound insight into the questions of when and why people engage in NSSI. This cycle depicts antecedent conditions and a prominent function of self-injurious behaviour (SIB) – emotion regulation (ER). It can also offer some explanatory power when applied to non-conventional methods of NSSI such as wall- / object-punching. This pattern and the theoretical functions of NSSI will be explored in further detail later in this chapter.

In a subsequent review, Klonsky et al. (2014) synthesizes evidence surrounding NSSI and highlights some common misconceptions. First, NSSI is now recognized in the DSM-5 as a diagnostic entity within its own right as opposed to being symptomatic of certain psychiatric disorders such as borderline personality disorder (BPD). Second, although NSSI is reported most frequently among psychiatric populations, it is also prevalent among community populations for those experiencing anxiety, negative affect, emotional dysregulation, and severe self-criticism. Importantly, these authors dispel the popular notion that NSSI is employed to garner attention or sympathy. In actuality, evidence shows that NSSI is typically conducted in private and kept hidden from others (Klonsky & Olino, 2008).

Prevalence of NSSI

NSSI is most common among adolescents and young adults (Klonsky et al., 2014; Nock, 2010). A recent systematic review and meta-analysis identifies global lifetime prevalence of SIB for adolescents at 19%, increasing to 20% for NSSI (Lucena et al., 2022). Robinson and Wilson (2020) note that meta-analyses can report differences in prevalence

depending upon assessment type. In general, NSSI prevalence has been found to be extremely variable (12 – 46%) depending on how it is defined or measured, with no valid, cohesive explanation of these differences (Whitlock et al., 2014). To better explore these behaviours, the Non-Suicidal Self-Injury – Assessment Tool (NSSI-AT) was developed as a research measure after a thorough review of academic and experiential knowledge from a broad array of stakeholders (Whitlock et al., 2014). More information on this instrument and how it was applied to this study can be found in Chapter 3.

Significance of NSSI – Why understand it

Refining and expanding our understanding of NSSI is important on many levels. A fundamental reason is curtailing the acute emotional and psychological distress endured by its practitioners (Nock, 2010). A preponderance of studies have identified a significant correlation between NSSI and an increased risk of suicide (Aggarwal et al., 2017; Curtis, 2017; Garisch et al., 2020; Hooley et al., 2020; Kimbrel et al., 2018; Klonsky et al., 2014; Lucena et al., 2022; Moran et al., 2024; Nock, 2010; Richmond-Rakerd et al., 2019; Spaan et al., 2022; Steinhoff et al., 2023; Whitlock et al., 2011). In fact, both Fitzgerald and Curtis (2017) and Kimbrel et al. (2018) identify that NSSI has emerged as an even better predictor of suicide than a history of previous attempts. Additionally, accidental deaths have been found to occur as a result of self-injury, even in the absence of suicidal intent (Steeg et al., 2019). Increased knowledge surrounding NSSI could lead to ancillary reduction in youth suicide or other harmful behaviours (Nock, 2010) including ODI. To explore any correlations, it is necessary to define the terms in question.

Outward-directed injury (ODI)

Outward-directed injury (ODI) is a novel term under exploration through this research. Generally, ODI is harm which is directed externally or outward, potentially causing injury to another or damage to an object, seemingly in an aggressive act. More specifically, it is deliberate and involves some level of intent to injure oneself. Examples of ODI could

include wall- / object-punching, fighting or other aggressive acts. Although NSSI is often conceptualized as inward-directed harm causing injury to oneself, some studies found punching objects to be the most common way males engage in NSSI (Fitzgerald & Curtis, 2017; Whitlock et al., 2011). As such, ODI and NSSI can be understood as different sides of the same coin in that both intend to cause injury and may correlate to an increased risk of suicide. The term ODI will be recognized as a form of SI where harm is directed outward toward other people or inanimate objects. Fundamentally, it could be argued that aggression underlies both, with the fundamental distinction being the target of that aggression. Thus, in some respects, understanding aggression becomes requisite for better understanding both ODI and NSSI / SDI.

Prevalence of ODI

As this is a novel term under exploration, it is not possible to definitively quantify the magnitude of its occurrence. Issues with reporting can further confound this determination (Curtis, 2016a).

Aggression

Aggression is defined as “behaviour directed towards another individual where the immediate intention is to cause harm” (Roberton et al., 2012, p. 73). A study by Garofalo et al. (2016) identified three underlying components of aggression. The first component is cognitive and comprised of hostile thoughts. The second component is emotional and encompasses angry feelings. And the third behavioural component entails aggressive actions. Velotti et al. (2016) contributed further by identifying three possible antecedents for human aggression. These antecedents represent personal risk factors that may ultimately increase the likelihood of aggressive actions. The first antecedent is a limited awareness of one’s own emotions. Labelled alexithymia, this trait is characterized as a “poor awareness of emotions and a diminished ability to think and talk about feelings” (Velotti et al., 2016, p. 296). It is proposed that those who exhibit alexithymia will also have a diminished capacity

for emotional restraint which is captured in the final two antecedents: emotion dysregulation and impulsivity. This understanding of aggression reinforces and enhances the foundational conceptualization of emotion regulation as a function of one's awareness and acceptance of emotions; ability to control impulsive behaviour; and utilize effective strategies to manage intense emotional responses in a contextually appropriate way (Gratz & Roemer, 2004).

Arguably, wall-punching could be considered one example of a lack of the above emotion regulation skills. Although Whitlock et al. (2011) found punching objects to be the most common way males engage in NSSI, it is regularly overlooked as a form of NSSI (Kimbrel et al., 2018). In fact, the act of a man punching a wall is more frequently assessed as aggression rather than self-harm (Levant et al., 2011, as cited in Curtis & Terry, 2023). When taken together, it is possible to see how wall- / object-punching and ODI follow the pattern of SI by Klonsky (2007) and are corroborated by a deeper understanding of aggression offered by Garofalo et al. (2016) and Velotti et al. (2016). Namely, human aggression is facilitated by alexithymia, emotion dysregulation, and impulsivity which subsequently manifest as uncontrollable hostile thoughts, angry feelings, or aggressive actions. Ultimately, those aggressive actions may be impulsively directed inward (NSSI) or outward (ODI). Furthermore, it is believed that some individuals use NSSI and ODI as a means of regulating their emotions. This will be explored in greater detail later in this chapter when examining the functions of these practices. Dual harm is a final definition of interest within the scope of this research.

Dual Harm (DH)

Recently, there has been an increase in research regarding the concept of dual harm (Carr et al., 2020; Richmond-Rakerd et al., 2019; Shafti et al., 2023; Slade et al., 2022; Spaan et al., 2022; Steeg et al., 2023; Steinhoff et al., 2023). Across these studies, the lack of a uniform, consistent, functional definition of the central concept is apparent. In general, dual harm is a convergence of both self-injury and aggression towards others (Shafti et al., 2021). It is distinct from ODI insofar as individuals who engage in dual harm injure oneself

and others, whereas those who engage in ODI might not engage in ‘traditional’ NSSI such as cutting. The dual nature of injury (both SI and aggression towards others) need not occur simultaneously. For example, one may injure oneself on one occasion and then, days later, direct aggression outward to inflict injury upon others. Dual harm research is important in that it facilitates insights into overlapping social and cognitive risk factors (Shafti et al., 2022; Spaan et al., 2022; Steeg et al., 2023; Steinhoff et al., 2022). Furthermore, dual harm can be identified as a significant indicator for future instances of suicide, violent offending, and development of psychopathology (Spaan et al., 2022). For example, in a study of twins, Richmond-Rakerd et al. (2019) found those who self-injured were three times more likely to perpetrate violent crime than those twins who did not engage in SI, identifying a risk of aggression independent of genetic or environmental factors. Ultimately, SI and aggression are observed to be significantly associated and share risk factors which are likely to contribute to their co-occurrence. However, there is currently insufficient evidence to support dual harm as an independent clinical construct (Shafti et al., 2023).

Prevalence of Dual Harm

While DH occurs less frequently than either NSSI or ODI alone, it is a serious problem. Exposure to multiple risk factors in childhood is associated with an increased risk of DH over single harm - either NSSI or ODI (Steeg et al., 2023). One study found a higher prevalence of DH among females (Shafti et al., 2022) while another study found it was not sex-specific (Spaan et al., 2022). Dual harm statistics are generally identified within clinical populations which may underestimate the extent of the problem. DH is reported at 13% among outpatients, whereas, that figure jumps to between 28 – 50% for psychiatric inpatients (Steeg et al., 2023). DH is also reported to occur in up to 56% of forensic populations (Shafti et al., 2023).

Obstacles to Understanding NSSI

It is critical to enhance uniformity and consensus surrounding the classification of behaviours as NSSI. One possible starting point could be the Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM–5; American Psychiatric Association [APA], 2013). The DSM-5 has identified NSSI-disorder (NSSI-D) as a "condition requiring further study" (APA, 2013, as cited in Buelens et al., 2020). In this respect, NSSI-D is recognized as a distinct disorder characterized by six diagnostic criteria (Criterion A - F) as opposed to being a symptom or practice of some other diagnosis.

Concerns regarding the accuracy and implications of some of the DSM-5 NSSI-D criteria have been raised since their inception (Zetterqvist et al., 2013). One objection pertains to Criterion A, which denotes that NSSI must have occurred for a minimum of five days in the past twelve months. This designation has been highlighted as being too infrequent to be meaningful (Buelens et al., 2020). Another concern relates to Criterion B which aims to characterize the motivations for NSSI-D. Arguably, Criterion B pre-emptively excludes reasons or functions of NSSI and arbitrarily impedes exploration surrounding this aspect of NSSI under the DSM-5 framework. Likewise, by rigidly defining the precursors to NSSI-D, Criterion C further constricts the context in which the behaviour may occur. The DSM-5 definition instantly precludes any self-injury which fails to meet the threshold of being clinically disruptive or acute. A further objection includes the argument that SI is comprised of a set of behaviours and is not a diagnosis in and of itself (Moran et al., 2024).

While the most severe instances of self-injury are of utmost concern, they are not the sole domain from which insight and understanding may be drawn. It is paramount that refining the definition of NSSI is not done at the expense of comprehensive understanding. Therefore, it may be that self-injurious behaviours could be better understood as being on a continuum or spectrum (Hooley et al., 2020). It may be that a more exhaustive definition could yield greater understanding through the identification of similarities and differences across the varied practices. For example, it may be useful to conceptualize SIB as a

compass with four points (outward, inward, direct, and indirect) as opposed to a linear understanding with only two.

Injurious behaviour (IB) could be situated as being either indirect or direct regarding the method of harm and being either inwardly directed towards oneself (traditional NSSI) or outwardly directed (ODI) in relation to the recipient of that harm. Therefore, one way forward may be the application of a more expansive conception of IB which allows comparisons devoid of pressure from rigid diagnostic criteria. Adoption of this broader perspective has pragmatic utility for constructing understanding from the current study. However, it is first necessary to lay the foundation of contemporary theoretical frameworks upon which the current study can be added.

Classification of Functions

Just as contextualizing injurious behaviour according to method (direct vs. indirect) and direction (inward vs. outward) could help promote understanding, classification of IB according to function may also offer additional insights. One means of differentiation is interpersonal versus intrapersonal functions. Interpersonal functions target increased social support or removal of unwanted social expectations involving others; whereas, intrapersonal functions aim to increase a desired emotion or decrease undesirable cognitive or emotional states within an individual (Nock, 2010). Historically, it was thought that NSSI's primary function was interpersonal and utilized to provoke a reaction from others (Klonsky et al., 2014). However, it is now widely accepted that SIB serves many functions (Hooley et al., 2020; Klonsky, 2007; Klonsky et al., 2014; Nock, 2010; Turner et al., 2012). Notably, research shows the most widely reported functions of NSSI are intrapersonal in nature and often aimed at regulating emotions (Gratz & Roemer, 2004; Hamza & Willoughby, 2015; Hasking et al., 2017; Klonsky et al., 2014; Robinson et al., 2019).

NSSI and ODI as Emotion Regulation (ER)

Intrapersonal functions are the most frequently reported purpose for engagement in NSSI by 63 – 78% of those who self-injure (Taylor et al., 2018). Klonsky et al. (2014) noted three intrapersonal emotion regulating functions: relief from negative emotions, self-punishment, and feeling generation. Several studies explore how NSSI may be utilised intrapersonally to regulate difficult emotions (Garofalo et al., 2016; Kimbrel et al., 2018; Nock, 2010; Robinson et al., 2019). Some experimental-guided imagery studies have identified evidence that NSSI reduces negative affect and instigates physiological changes in practitioners (Brain et al.,1998; Haines, Williams, Brain, & Wilson, 1995; Welch, Linehan, Sylvers, Chittams, & Rizvi, 2008, as cited in Hamza & Willoughby, 2015).

A second intrapersonal function is self-punishment which is believed to originate from intense anger, criticism or loathing directed at oneself (Klonsky et al., 2014; Nock, 2010). It could be argued that low self-esteem could contribute to these intense emotions which precipitate self-punishment. However, a study by Garofalo et al. (2016) found that “emotion dysregulation fully mediated the links that low self-esteem had with physical aggression, anger, and hostility” (p.3). Ultimately, the study provided empirical support that self-esteem had only an indirect effect on aggression whereas emotion dysregulation was confirmed as a significant risk factor.

A third intrapersonal function of NSSI is feeling generation to overcome pervasive numbness or dissociation. A recent study by Nester et al. (2023), found that almost all (92%) of the highly dissociative participants in their sample reported a lifetime history of NSSI. However, the study also found, after controlling for age, gender, depressive symptoms, PTSD symptoms, and emotion dysregulation, dissociation was not uniquely associated with any correlated NSSI functions. In fact, emotion dysregulation alone was uniquely associated with utilisation of NSSI as self-punishment, whereas, PTSD symptoms were uniquely associated with NSSI engagement to alleviate episodes of dissociation. Ultimately, NSSI

functions as ER or a means to manage or alter one's internal state in a variety of circumstances.

Similarly, behaviours which fit the definition of ODI appear to function as a form of ER. Some have suggested that violence toward others (i.e. intimate partner violence (IPV)) may serve as ER (Jakupcak, Lisak, & Roemer, 2002, as cited in Gratz & Roemer, 2004). Kimbrel et al. (2018) found wall- / object-punching is strongly associated with relief from negative affect. In fact, participants in their study were more likely to report relief from negative affect using wall- / object-punching than solely using more traditional forms of NSSI. It is difficult to draw more explicit parallels between other intrapersonal functions and ODI as current research in this area is sparse. Accordingly, it is constructive to consider functional overlaps and concurrences. For example, Kimbrel et al. (2018) identified that wall- / object-punching functioned to relieve suicidal ideation in their participants. NSSI has been considered to be counter-suicidal in some instances (Curtis, 2017). Hence, it is necessary to explore the other functions served by these maladaptive behaviours.

Other Functions

The anti-suicide aspect of SI has been identified as a significant intrapersonal function in a systematic review of the evidence (Klonsky, 2007). However, it can be challenging to discern if the behaviour is employed to specifically avoid suicide or more fundamentally to alleviate acute distress (Curtis, 2017). Accordingly, it could be permissible to consider the anti-suicidal aspect of NSSI under the broader umbrella of ER functions. Therefore, ER ultimately emerges as the dominant function of SI.

Interpersonal functions are identified less frequently but are still reported to be a factor in SI for 33-56% of people (Taylor et al., 2018). Some report using SI as a form of communication to emphasize the magnitude of their distress (Nock, 2008; Turner et al., 2012). Others report using SI to elicit help or manipulate others socially or emotionally (Klonsky, 2007; Turner et al., 2012). SI has also been reported to function interpersonally as an act of defiance to demarcate one's autonomy (Klonsky, 2007).Whilst understanding

functional aspects of SIB can help inform targeted interventions (Taylor et al., 2018), individuals typically report more than one function is served by their behaviour (Klonsky, 2007). Functional utility is one facet for understanding SIB. The identification of risk factors which may predispose individuals to adopt such maladaptive strategies is another.

Risk Factors & Vulnerabilities

A considerable amount of inquiry and research has been invested into delineating the risk factors and vulnerabilities that may predispose individuals to aggression and injurious behaviours (Aggarwal et al., 2017; Garbutt et al., 2023; Garisch & Wilson, 2015; Hasking et al., 2017; McEvoy et al., 2023; Nester et al., 2023; Nock, 2010; Sornberger et al., 2013; Steeg et al., 2023; Steinhoff et al., 2022; Velotti et al., 2016). It is outside the scope of this paper to restate the copious theoretical and empirical work conducted in this area. The aim of the current study is to investigate the commonalities and differences across self- and outward-directed injurious behaviours primarily in regard to gender, distress levels, and reported functions. Therefore, the focus here is the foundational aspects of risk and vulnerability and the current consensus in the field regarding these attributes in the context of SIBs. Subsequent comparisons between SDI and ODI as contextualised within AoNZ will also be considered.

Nock's definition of SI serves as the accepted foundational conceptualisation of the practice. Further, he developed an integrated theoretical model of the development and maintenance of self-injury (2010) which assembled the empirical findings of the time. He delineated various risk factors and correlates while highlighting the difficulty involved in drawing direct causal explanations of SI (See Appendix A). This model focuses SI as a stress response when accompanied by a broad scope of risks and vulnerabilities which increase its likelihood. Distal factors include genetic predisposition for emotional or cognitive reactivity, childhood abuse or maltreatment, and family hostility/criticism. Vulnerability factors are categorised in terms of intrapersonal, interpersonal, and NSSI specific aspects which correlate to SIBs. Intrapersonal vulnerabilities include highly aversive emotions, highly

aversive cognitions, and poor distress tolerance. Interpersonal vulnerabilities include poor communication skills and/or poor social problem-solving. NSSI-specific vulnerability factors refer to the various theoretical functions achieved by SI engagement (Nock, 2010) many of which were discussed in the previous sections.

More recently, McEvoy et al. (2023) conducted an umbrella review of systematic reviews and meta-analyses to examine the risk and protective factors contributing to SIB in young people. Again, challenges were encountered due to the lack of consistency in terminology across the research and literature. Ultimately, the review explored ‘self-harm’ as deliberate acts with intent to injure oneself irrespective of suicidal intent (which this paper refers to as SI or SIB). In general, risk factors were classified into five overlapping categories: psychiatric or psychological; individual-level physical or fixed; adverse childhood experiences (ACEs) or adverse life experiences (ALEs); environmental or social; and behavioural (McEvoy et al., 2023). The review found the strongest association with SI among individuals experiencing behavioural disorders, personality disorders, depression, or anxiety. The most frequently identified risk factors were childhood neglect / (sexual) abuse, depression / anxiety, bullying, ACEs / ALEs / trauma (general), psychiatric illnesses, substance use / abuse, parental divorce, poor family relationships, lack of friends, or exposure to SIB in others (McEvoy et al., 2023). The breadth and width of these categories demonstrates the vast expanse that may to contribute to the development of self-injurious behavioural strategies. One means of refining or focussing the vast array of risk factors is through the examination of research surrounding dual harm (DH).

Dual harm research specifically identifies the co-occurrence of SI and aggression and in doing so enables the clear identification of overlaps in these constructs. Personality traits such as high impulsivity, emotional instability and anti-social tendencies feature heavily in people who dual harm (Richmond-Rakerd et al., 2019; Shafti et al., 2021; Slade et al., 2022). In addition, mood / anxiety disorders and family history of mental illness are prominent (Carr et al., 2020). Further, childhood risk factors such as abuse, bullying,

maltreatment, neglect, and ACEs are also predominant (Carr et al., 2020; Richmond-Rakerd et al., 2019; Steeg et al., 2023). Environmental factors such as SES, harsh parenting style, and SI among peers are also identified as significant risks factors. One study even suggests that those who dual harm may engage with SI and aggression (ODI) interchangeably as a response to regulating difficult emotions (Shafti et al., 2021).

Protective Factors

The comprehensive and contemporary umbrella review conducted by McEvoy et al. (2023) found few protective factors were identified. Notably, very few of the studies included in this review examined protective factors at all. Within the evidence, good relationships with family and friends emerged as the most frequently reported. As this umbrella review did not differentiate injury by suicidal intent, two protective factors against suicide were noted, being: good sleeping habits and good connectedness at school. A separate international study found higher incidence of SI and violence for youth with low socio-economic status living in deprived neighbourhoods (Ejlskov et al., 2023). The study proposed that this illustrated protective factors were accentuated and risk factors were reduced by residence in affluent neighbourhoods.

Overlaps between NSSI and ODI

There appear to be significant overlaps between NSSI and ODI on display in the current literature. Research surrounding DH identified that individuals may engage in SI and aggression interchangeably because they may share overlapping functions (Shafti et al., 2021). The predominant function of both NSSI and aggression (ODI) has been identified as emotion regulation (Garofalo et al., 2016; Hamza & Willoughby, 2015; Hasking et al., 2017; Klonsky et al., 2014; Nester et al., 2023; Richmond-Rakerd et al., 2019; Roberton et al., 2012; Robinson et al., 2019; Taylor et al., 2018; Velotti et al., 2016). Aggression appears to be a mutual underlying emotion for both inward- and outward-directed SI (Curtis & Terry, 2023; Garofalo et al., 2016; Khalil & Da Silva Guerreiro, 2024; Roberton et al., 2012; Shafti

et al., 2022; Shafti et al., 2023; Shafti et al., 2021; Spaan et al., 2022; Steeg et al., 2023; Velotti et al., 2016). A similar pattern emerges: beginning with hostile thoughts, leading to angry feelings, and erupting into aggressive actions (Garofalo et al., 2016) identified particularly among those who struggle to understand (alexithymia) or control (impulsivity) their own emotions (Hasking et al., 2017; Nock, 2010; Velotti et al., 2016). Individuals with behavioural disorders, personality disorders, depression, anxiety, or experience ACEs are also heavily represented across both inward- and outward-directed injury (McEvoy et al., 2023; Shafti et al., 2023) and appear to peak in adolescence (Spaan et al., 2022). Both NSSI and ODI (in the form of wall- / object-punching) serve as a reliable predictor of present suicidal ideation (Fitzgerald & Curtis, 2017; Kimbrel et al., 2018).

It is possible that some perceived differences between NSSI and ODI may be created or confounded by social constructs. One study suggests that context may significantly influence how behaviour is interpreted. For instance, aggressive and violent behaviour may be a focal point in forensic environments whereas SI is often a prime consideration in clinical settings (Spaan et al., 2022). Gender stereotypes and bias also seem to play a significant role in perceptions of SI and aggression (Curtis & Terry, 2023; Kimbrel et al., 2018). Typically, these gender distinctions have not been empirically supported by current research (Garisch & Wilson, 2015; Kimbrel et al., 2018; Nester et al., 2023; Robinson et al., 2019). Curtis and Terry (2023) suggest that wall-punching, may be conceptualised differently, as less deliberate than cutting because no implements are required. This may suggest that perception surrounding a method of injury could also introduce false distinctions. These issues seem to help obscure understanding and limit the efficacy of prevention and invention of these serious issues for our young people.

Framing the Problem

Framing refers to the way we attribute meaning using dominant ideas or narratives in the classification, organisation or interpretation of events or issues. The manner in which issues are framed can fundamentally influence how perceptions and interventions are

constructed (Riemer et al., 2020). Much of the current research surrounding SIBs and NSSI in particular focuses on individual attributes, risk factors, and triggers (Buelens et al., 2020; Garisch & Wilson, 2015; Klonsky et al., 2014; Nester et al., 2023; Whitlock et al., 2014). With this perspective, the entire issue of self-injury becomes merely an individual's problem with prevention and interventions targeted at an individual level. Furthermore, SI is typically framed not only as an individual's problem, but as an individual female's problem. Often, current research often supports this view. For example, Whitlock et al. (2014) found that females were almost twice as likely to report NSSI engagement than males. Alternatively, some research identifies that men are more reluctant to disclose SI and negative emotions and often hurt themselves differently (Tofthagen et al., 2022). Consequently, narrowing the focus at the individual level, and even further by gender, may ultimately undermine comprehensive understanding of these harmful behaviours and subsequently limit the efficacy of prevention and intervention efforts.

Aotearoa New Zealand Context

Aotearoa New Zealand (AoNZ) has the second worst youth suicide rate out of 38 countries in the Organization for Economic Cooperation and Development (OECD) (Gromada et al., 2020). Rangatahi Māori are almost three times as likely to complete suicide than their non-Māori peers (Gluckman, 2017). A large longitudinal study of AoNZ adolescent health and well-being identified steep increases in depression symptoms, suicidal thoughts, suicide attempts, and a significant decline in emotional wellbeing (Fleming et al., 2022). Given the positive association with suicide and SI, it is logical that a local study found a 50% higher prevalence of NSSI among AoNZ adolescents as compared to their peers overseas (Garisch & Wilson, 2015).

Specific AoNZ information regarding NSSI prevalence, functions, attitudes, and risk factors is limited. Lifetime reports of NSSI vary across studies from 38% (Fitzgerald & Curtis, 2017) to as high as 69% (Robinson & Wilson, 2020). A considerable body of local work reinforces a key function of NSSI is coping with uncomfortable emotions (Curtis, 2016b,

2017, 2018; Fitzgerald & Curtis, 2017; Garisch & Wilson, 2015; Robinson et al., 2019), coinciding with international findings. Domestic research has also demonstrated that negative affective states were reduced during and after NSSI and included a sense of relief (Garisch & Wilson, 2015). Garisch and Wilson (2015) also identified that engagement in NSSI was associated with higher alexithymia, depression, anxiety, bullying, impulsivity, as well as a history of abuse, sexuality concerns, and lower self-esteem. Notably, one study found rangatahi Māori were no more likely to engage in NSSI than their European peers (Fitzgerald & Curtis, 2017). Other AoNZ risk factors echo international studies, such as, poor socio-economic wellbeing (Curtis, 2018; Garisch et al., 2020) and non-heterosexuality (Fitzgerald & Curtis, 2017).

Gender distinctions regarding SIB can also be variable in AoNZ. Some studies report no significant gender differences for NSSI (Garisch & Wilson, 2015) while others note a higher prevalence among females (Fitzgerald & Curtis, 2017; Robinson et al., 2019; Robinson et al., 2021). Some perceived gender differences may be linked to bias surrounding gender stereotypes and how those influence conceptualizations of SIB (Curtis & Terry, 2023). For instance, young men are often recognised as perpetrators of verbal and physical aggression towards others which is characterised as anti-social behaviour (Curtis, 2016a). Some evidence suggests that young women who exhibit aggression (ODI) as a form of NSSI are often under-recognised (Curtis, 2018). Severe aggression has been implicated as a higher risk of prison referrals for men by over five times that of women (Skipworth et al., 2023).

There are also unique and chasmal challenges within the AoNZ context. Unlike some other countries, Aotearoa New Zealand has a legal obligation through Te Tiriti o Waitangi to care for tangata whenua in a culturally appropriate way. As Māori are often over-represented amongst injury and incarceration statistics (Fitzgerald & Curtis, 2017; Garisch & Wilson, 2015; Skipworth et al., 2023), it is imperative to explore differences and tailor prevention and intervention accordingly. Nationwide, “New Zealand communities have expressed enormous

frustration at insufficient mental health support, and, despite increases in funding, waitlists for mental health support remain dangerously long in many communities" (Fleming et al., 2022, p. 443). In addition, local studies identify there is a lack of understanding by 'professionals' (Curtis, 2018) and school staff are ill-equipped to support students engaging in NSSI (Garisch et al., 2020).

This study

This research examines two serious issues which can adversely affect young people: NSSI and ODI. Often, these are conceptualised and addressed by researchers and service providers in vastly differently ways. Often people who engage is NSSI are assumed to be acutely depressed (sad) or anxious (mad) whereas those who lash out and direct their aggression towards others are characterised as bad. The literature seems to suggest there may be consequential overlaps which could inform better understanding and improved interventions. The key research question is: to what extent are NSSI and aggression (ODI) ways of dealing with the same issues, especially managing negative emotions? In the absence of research in this area, a comparison of these behaviours may uncover similar antecedents. Should this research confirm similar antecedents, it could inform prevention and intervention applications for both NSSI and ODI.

Recent research indicates that NSSI is most common in adolescents and young adults and is associated with states of acute emotional and psychological distress (Hasking et al., 2017; McEvoy et al., 2023; Richmond-Rakerd et al., 2019; Robinson et al., 2019; Spaan et al., 2022). Some studies report a higher prevalence of NSSI among women (Moran et al., 2024; Whitlock et al., 2011) whilst others found no significant difference between genders (Curtis, 2017; Fitzgerald & Curtis, 2017; Garisch & Wilson, 2015; Kimbrel et al., 2018; Steinhoff et al., 2023). Arguably, wall- / object-punching could be consistent with the definition of NSSI (Curtis & Terry, 2023; Kimbrel et al., 2018) and is often excluded even though the practice has been found by some to be the most common way males engage in NSSI (Fitzgerald & Curtis, 2017; Whitlock et al., 2011). Thus, gender distinctions emerge as

an important research consideration. Although rangatahi Māori appear no more likely than their European peers to engage in NSSI (Fitzgerald & Curtis, 2017), they are significantly more likely to die by suicide (Fleming et al., 2022) or be incarcerated (Skipworth et al., 2023). Understanding cultural differences in relation to harmful behaviours may help inform bespoke prevention and interventions for vulnerable rangatahi Māori. In addition, research identifies that SIBs can serve many functions (Hooley et al., 2020; Klonsky, 2007; Klonsky et al., 2014; Nock, 2010; Turner et al., 2012). In essence, understanding the different functions served by various SI methods may prove insightful for overall harm reduction.

For analytical purposes, the term self-directed injury (SDI) will be used preferentially to NSSI to refer to deliberate self-injury where harm is directed internally towards oneself; whereas, ODI identifies a deliberate act of harm directed externally or outward involving some level of intent to injure oneself whilst potentially causing injury or damage to another person or object. Explicit categorisation of specific behaviours as either SDI or ODI is identified in Chapter 3. Accordingly, the data in this study was analysed to consider three primary hypotheses. The first hypothesis is (H1) There are significant differences regarding SDI and ODI engagement according to gender. The second hypothesis is (H2) Significant emotional distress precipitates both SDI and ODI engagement. And finally, the third hypothesis is (H3) A dominant function of SDI and ODI is managing negative emotions. Whilst some of these hypotheses may be well established through other research solely examining NSSI, this study explores these correlations in relation to the conceptualisation of ODI within an Aotearoa New Zealand social and cultural context.

Chapter 3: Method

This chapter first contextualises the research and researcher before describing the research methods and methodology utilized in this study. Specifically, the research procedures relating to participant recruitment, instruments, data collection, analysis, and ethics are described in detail.

Situating this Research

This study is one quantitative component of more comprehensive mixed methods emotional well-being research called the SHInE (Self Harm and Injury Exploration) Project. Other distinct data gathering endeavours for the Project including: a key informant survey, young people and key informant interviews, and an ecological momentary assessment (EMA) survey tool. The aim of the SHInE Project is to investigate the relationships, commonalities, and differences between non-suicidal self-injury (NSSI) and outward-directed injury (ODI) from a variety of perspectives to yield a robust conceptualisation of the issue. Detailed information regarding the SHInE Project is available on the dedicated research website (https://theshineproject2023.wordpress.com/). The research component for this paper is a 112-item survey which represents an adaptation of the Health and Well-being Survey (Whitlock et al., 2011) for the New Zealand context by Fitzgerald & Curtis (2017) (see Appendix B). The survey asks an array of questions surrounding mental health and wellbeing such as: social and family relationships, stress, anxiety and depression, self-injury and getting support for problems. The target audience for this particular survey was adolescents and young adults; however, data was collected and analysed from all ages provided they typically reside in Aotearoa New Zealand. An information sheet was designed to capture the specifics of the study and act as a preliminary recruitment tool (see Appendix C).

Situating this Researcher

I am a mature tauiwi masters student of eastern European descent who was born and raised in the United States of America. I have called Aotearoa New Zealand home for over 26 years and recently became a naturalised New Zealand citizen. Like many, I find myself on a personal journey to honour my obligations as tangata Tiriti and expand my cultural competencies surrounding tikanga and te reo Māori. I have worked in a number of industries prior to studying psychology, which include: financial services, agriculture, horticulture, education, health, and within a variety of NGOs. I have many years' experience working compassionately alongside young women who struggle with suicidality, non-suicidal self-injury, and acute eating disorders which has significantly helped inform this research.

Participants

Participants in this survey represent a self-selected, diverse cross-section of New Zealanders. Data was collected from respondents of any age who normally reside in Aotearoa New Zealand (AoNZ). Participants who indicated that they typically live outside of AoNZ were specifically excluded. As NSSI is most prevalent among adolescents and young adults (Nock, 2010), we were particularly interested in this group as reflected in one of the two recruitment methods (see below). The target sample size for the administration of this survey was between 300 – 500 participants. We received a total of 454 submissions across two iterations of the survey (described in detail later in this chapter); however, some were discarded for various reasons as detailed in the Procedure Analysis section. Data cleaning notwithstanding, we achieved a sample size within our targeted range (N = 344) as the data from each iteration was combined for analysis purposes.

Participant Recruitment

In the first instance, participants were recruited through qualifying enrolment in University of Waikato psychology papers. In the second instance, recruitment occurred via emailed invitations to secondary schools, social service agencies, and the professional

networks of the research team (see Appendix D). Information regarding the survey and wider research project was also disseminated via social media. Recruitment flyers including QR codes were widely posted on notice boards in public spaces, around universities, and social services agencies (see Appendix E). Sharing digital links to the survey and wider research project website via researchers' personal networks that included our target audience was encouraged.

Participants in this survey were predominantly female (76.7%) with males comprising 20.1% and non-binary individuals accounting for 3.2%. Most participants identified as NZ-European (Pākehā) (56.1%) with over a quarter of the sample identifying as NZ Māori (25.3%). Notably, participants were permitted to select all ethnicities which were applicable to them. The majority of participants were heterosexual (77.9%) with bisexual individuals composing the second highest group (14.8%). The age distribution of this sample was concentrated in the younger brackets, with 73.7% of participants being aged 25 or younger (see Table 1 below for further detail).

Table 1

Demographic Characteristics of Participant Sample

Demographics	Number (*n*)	Percentage (%)
Gender [a c]		
Female	263	76.7
Male	69	20.1
Non-Binary	11	3.2
Ethnicity		
NZ-Māori	87	25.3
NZ-European (Pākehā)	226	65.7
Pasifika	20	5.8
Asian	22	6.4
Other	56	16.2
Sexual Orientation		
Heterosexual	268	77.9
Gay / Lesbian	11	3.2
Bisexual	51	14.8
Questioning	13	3.8
Fluid	8	2.3
Other	14	4.1
Age [b c]		
18 and under	71	20.7
19-20	90	26.2
21-25	92	26.8
26-30	27	7.9
31-35	31	9.0
36-40	7	2.0
41-50	15	4.4
51 and over	10	2.9

Note. If participants identified as having more than one ethnic heritage or sexual orientation, they were included in all categories they selected.

[a] *N = 343* one missing value for Gender. [b] *N = 343* one missing value for Age.

[c] Reflects valid percentages reported for stated category.

Instruments

Two slightly different surveys were administered: the first, for University of Waikato psychology students and the second, for all other participants. A total of 112 survey items were the same in each iteration, the only material difference being information relating to participant incentives. Specifically, bonus course marks were offered to students, whereas a gift voucher prize draw was available to everyone else. Questions were displayed to participants based upon their relevance as indicated by previous responses. Therefore, some items may have been omitted if inapplicable. The full survey instrument can be found in Appendix B.

Many of the items contained in the survey were curated from well-validated measures regarding specific lines of inquiry. In general, an adaptation of the Health and Well-being Survey (Whitlock et al., 2011) for the New Zealand context by Fitzgerald & Curtis (2017) served as the foundation for the exploration of NSSI. Elements of the NSSI-AT were also included to identify the presence and various forms of NSSI utilised by respondents (Whitlock et al., 2014). Additionally, the Depression, Anxiety, and Stress Scales 21-item short form (DASS-21, Lovibond & Lovibond, 1995) was included to capture and compare respondents' affect. Two additional survey items pertaining specifically to outward directed injury (ODI) were devised and added to the survey. These are included in the discussion of the procedure below, as Table 2.

Table 2

Novel Devised & Added ODI Survey Items

Survey Item	Possible Responses
Q61: Have you ever done any of the following as a way of injuring yourself?	
	Picked a fight with someone
	Annoyed or verbally abused someone, with the expectation that they might physically hurt you
	Physically assaulted someone
	I have never done any of these things
Q62: A reason why some people do these things is to manage emotions. When you've done this has it been because you wanted to (Please click all that apply):	
	Reduce sadness / depression
	Reduce anxiety / worry
	Reduce frustration
	Reduce anger
	Reduce suicidal feelings
	Have fun / for enjoyment (rather than to reduce unpleasant emotions)
	Change some other emotion. If so, please briefly tell us a little more below [free text box]
	None of these

Note: Q62 was only displayed if respondents selected any response option(s) for Q61.

NSSI-AT

The Non-Suicidal Self-Injury-Assessment Tool (NSSI-AT) is an online instrument which was specifically designed for use in both clinical and community populations to identify the presence of NSSI behaviours as well as assess the perceived functions of those behaviours (Whitlock et al., 2014). The NSSI-AT development was guided by existing literature and assessment tools as well as information gained from interviews with individuals who engage in SIB and the professionals who support them. Test-retest reliability of this measure was found to be within an acceptable range (Whitlock et al., 2014).

Although the NSSI-AT is comprised of a total of 12 modules (Whitlock et al., 2014), this study concentrates on two modules: behaviour-based screening questions (specific forms of NSSI) and the perceived functions of those behaviours. First, relating to behaviour screening, two responses were categorised as outward-directed injury (ODI) for the purposes of this study; namely: “Banged or punching Objects to the point of bruising or bleeding” and “Engaged in fighting or other aggressive activities with the intention of getting hurt” (see Appendix B). Second, the NSSI-AT classifies functions of SIB into five groups: Affective Imbalance, Low Pressure; Affective Imbalance, High Pressure; Social Communication and Expression; Self-Retribution and Deterrence; and Sensation Seeking (Whitlock et al., 2014). For this study, responses pertaining to affect imbalance were of particular interest to aid in the exploration of how NSSI behaviours reportedly assist with regulating emotions (See Table 3).

Table 3

NSSI-AT Affect Imbalance Function Groups [survey item]

Functions (I hurt myself. . .)
Affective Imbalance, Low Pressure
. . . to cope with uncomfortable feelings (e.g. depression or anxiety) [Q85_1]
. . . to change my emotional pain into something physical [Q85_19]
. . . to feel something [N/A]
. . . to get control of myself or my life [Q85_12]
Affect Imbalance, High Pressure
. . . to relieve stress or pressure [Q85_2]
. . . to deal with frustration [Q85_22]
. . . to deal with anger [Q85_24]
Social Communication and Expression
. . . in hopes that someone would notice that something is wrong or that so others will pay attention to me [85_11]
. . . to shock or hurt someone [Q85_17]
. . . because my friends hurt themselves [Q85_7]
Self-Retribution and Deterrence
. . . as a self-punishment or to atone for sins [Q85_5]
. . . because of my self-hatred [Q85_25]
. . . so I do not hurt myself in other ways [Q85_16]
. . . to avoid committing suicide [Q85_20]
Sensation Seeking
. . . because I get the urge and cannot stop it [Q85_21]
. . . because it feels good [Q85_3]
. . . to get a rush or surge of energy [Q85_10]
. . . because I like the way it looks [Q85_4]

Note. Sourced from (Whitlock et al., 2014, p. 938).

DASS-21

The Depression Anxiety Stress Scales (DASS) is a 42 item instrument developed by Lovibond and Lovibond (1995) which measures each of those three negative emotional

states while providing an overall measure of psychological distress when the three subscales are summed together. Respondents utilise a 4-point severity / frequency scale to report the extent to which they have experienced each state over the previous week. The shortened version of the instrument (DASS-21) reduces the number of items to 21 with seven items referring to each of the three subscales to provide a more concise measure of these broad constructs (Henry & Crawford, 2005).

The DASS-21 has been repeatedly found to provide a reliable and valid measure of psychological distress (Antony et al., 1998; Henry & Crawford, 2005; Lovibond & Lovibond, 1995; Medvedev, 2023). Additionally, the DASS-21 potentially reduces respondent fatigue while retaining a high level of internal consistency. Using Cronbach's alpha to examine internal consistency, the DASS subscales relating to Depression, Anxiety and Stress are reported as 0.97, 0.92, and 0.95 respectively; whereas the DASS-21 exhibits 0.94 for the Depression, 0.87 for the Anxiety and 0.91 for the Stress subscales (Antony et al., 1998). As a result of its reliability and validity, the shorter instrument has become popular for use in non-clinical settings and has been translated into 34 languages (Medvedev, 2023). Analysis of the internal consistency of the DASS-21 subscales in our instrument also ranges from excellent to good (0.93 for Depression, 0.86 for Anxiety, and 0.83 for Stress).

Procedure

The survey was administered through the online survey software platform Qualtrics. The platform provides compatibility with a range of electronic devices including smart phones, allowing participants to complete the survey at their convenience. Prior to viewing the survey itself, potential respondents to the public survey were prompted to complete a CAPTCHA (Completely Automated Public Turing test to tell Computers and Humans Apart) to reduce the chance of non-human participants. This was not a concern for those completing the student iteration as the student survey link was not publicly available. In every case, consent was obtained and recorded according to their response to the following:

"*By clicking the next box below, you are indicating that you have read the information above and are ready to begin."*

The data collection period for each iteration lasted approximately two months. The student survey yielded *n* = 267 recorded responses with 100% response quality as determined by the survey platform Qualtrics, whereas the public survey yielded *n* = 187 responses with a response quality of only 77%. Essentially, any record that was identified as potential non-human respondent (bot) via Qualtrics' bot detection feature or attributed a RECAPTCHA Score of less than 0.80 was discarded. The remaining data (Student survey *n* = 267; Public Survey *n* = 123) was then exported into IBM SPSS software for further scrutiny. Additional records were removed if participants failed to complete the survey items of interest to allow adequate analysis of responses. A further three records were removed as these participants indicated that they did not typically reside in Aotearoa New Zealand. Consequently, the final total responses included for analysis was *N* = 344.

Data Analysis

Survey Completion Time

It was estimated that it would take an average of 20 minutes to complete the survey; however, completion time is heavily influenced by the respondent's reported engagement in behaviours of interest. Affirmative answers would display additional survey items which would subsequently lengthen the time necessary to complete the survey. The minimum completion time was 224 seconds (3.73 minutes); whereas, the maximum was 229,363 seconds (3822.72 minutes). The maximum time depicts an inordinate amount of time to complete the survey. This suggests some respondents may have paused and resumed the survey sometime later. The median time to complete the survey was 1414 seconds or approximately 23.5 minutes, which is in line with expectations.

Data Diagnostics

Non-suicidal Self-Injury. Non-suicidal self-injury was determined to be present if an individual identified engagement in any of the listed SIBs (specifically Q59_1-11 to and/or Q60_1; _2; _4; _5; _6; _8 per Appendix B). If participants reported engagement in any of these, an additional survey item (Q85) was presented to capture the function of these behaviours. For the analytical purposes, this summed data is referred to as self-directed injury (SDI). Arguably, the divergence from the more common label of NSSI is necessary to differentiate the unknown suicidal intent of these behaviours as captured by this particular instrument. In addition, the term SDI highlights the self-directed versus outward-directed nature of this class of behaviours. Adding yet another term into the research vernacular may seem to contradict the universal implementation of well-defined constructs recommended by Klonsky et al. (2014). However, it is important to make a clear distinction from previous research which identifies many of the ODI behaviours identified in this study (see Table 4 below) as NSSI (Curtis & Terry, 2023; Fitzgerald & Curtis, 2017; Kimbrel et al., 2018; Mann et al., 2024; Moran et al., 2024; Whitlock et al., 2011). Overall, participants were identified as ‘Lifetime SDI’ if they had engaged in at least one of the 17 possible self-directed injurious behaviours across items Q59 and Q60.

Alternately, behaviours listed in Table 4 (specifically Q60_3; Q60_ 7; Q61_ 1; Q61_ 5; Q61_6) were separately classified as outward-directed injury (ODI). If participants reported engagement in any of these, an additional survey item (Q62) was presented to capture the perceived function of these behaviours (see Appendix B). Likewise, participants were identified as ‘Lifetime ODI’ if they had engaged in at least one of the five possible outward-directed injurious behaviours.

Additionally, a new variable was constructed to indicate dual SDI / ODI engagement. This variable consists of any participant who has indicated the presence of both Lifetime SDI and Lifetime ODI. Comparisons were then made between this new Dual Engagement group

and all other participants including those who reported engagement in a singular class of SIB (either SDI or ODI independently) or no SIB whatsoever.

Table 4

All Survey Items Coded as Outward-Directed Injury (ODI)

Survey Item Number	Item Origin	Item Text
Q60	NSSI-AT	Have you ever done any of the following with the purpose of intentionally hurting yourself? Please click all that apply.
Q60_3	NSSI-AT	Banged or punching objects to the point of bruising or bleeding.
Q60_ 7	NSSI-AT	Engaged in fighting or other aggressive activities with the intention of getting hurt.
Q61	Novel	Have you ever done any of the following as a way of injuring yourself?
Q61_ 1	Novel	Picked a fight with someone.
Q61_ 5	Novel	Annoyed or verbally abused someone, with the expectation that they might physically hurt you.
Q61_6	Novel	Physically assaulted someone.

Note. Participants were able to select all response options applicable to themselves.

Gender. Participants were offered the options of Male, Female, Non-binary or a text box to indicate gender identity. Two write-in responses regarding gender could reasonably be classified as subsets of the non-binary group (Sissons, 2023, December 19) so were transformed to non-binary for analysis purposes.

Affect – DASS-21. All 21 items of the DASS-21 are included in our survey instrument. These items correspond to Q30 – Q 51 (see Appendix B). Scores were computed for each subscale of Depression, Anxiety and Stress as well as an overall total distress score according to scoring guidelines higher scores indicated a higher level of each subscale facet or overall distress respectively. We then used these scores to examine the relationship between affect and behaviour engagement.

Emotion Regulation. Five variables were created to correspond to the NSSI- AT items pertaining to Whitlock's Function Groups (as detailed Table 3). It is important to note that item Q85 was only displayed to those participants who identified as intentionally hurting themselves; therefore, these respondents are all necessarily included in the SDI Group variable.

Seven potential functions were offered in survey item Q62 to capture the perceived functions of outward-directed injury (ODI, see Appendix B). Notably, item Q62 was only displayed to those participants who indicated they had engaged in any of the three specifically ODI behaviours indicated in Q61.

Analytic Strategy

This survey is intended to serve as exploratory research into the novel construct of outward-directed injury (ODI) as compared to traditional NSSI and the extent to which these classes of injurious behaviours are ways of dealing with the same issues – namely, managing negative emotions. The focus of this analysis will be as follows:

1. Who engages in SDI?
2. Who engages in ODI?

3. How does affect contribute to engagement in various behaviours?
4. What are the reported functions of these behaviours?

Ethical Approval

Ethical approval for this study was sought and received from the University of Waikato Human Research Ethics Committee (approval number: HREC(Health)2023#16) (see Appendix F). The Emotional Well-being Survey is part of a larger study: The SHInE Project (Self Harm Injury Exploration) being conducted by University of Waikato (School of Psychology) staff member, Dr. Cate Curtis as lead researcher (https://theshineproject2023.wordpress.com/).

Participant Safety

As the survey contains topics that could be uncomfortable to think about, a resource sheet was included in both iterations to provide contact information for mental health support services should participants find themselves in need of assistance (Appendix G). The student survey also included a Student Debrief Letter offering additional information around the research project as a whole (see Appendix H).

Chapter 4: Results

This chapter reports survey data that is pertinent to NSSI and the analytical constructs of self-directed Injury (SDI) and outward-directed injury (ODI). The focus is on participants' gender, affect, and reported functions with an aim to identify any significant overlaps in these methods of self-injurious behaviours (SIBs).

NSSI Descriptive Data

Self-direct Injury (SDI)

Any injurious behaviour which was classified as self-directed (17 possible items as defined in Chapter 3, Data Diagnostics section) was transformed into a separate variable labelled SDI. This variable represents the general presence of this class of behaviours. Analysis regarding the number of various methods in which a participant engaged was explored (see Table 5 below). A majority, 57.7% (*n* = 197) of respondents, reported engaging in at least one SDI behaviour. Whereas 42.4% (*n* = 145) of respondents indicated they had never intentionally hurt themselves in these ways. Valid percentages are utilized for this analysis and rounding accounts for the small discrepancy. Mean, standard deviation, and further analysis of SDI according to functions can be found later in this chapter in Table 12.

Generally, many of the people who harm themselves in these ways engage in a variety of different methods. Only 8.8% (*n* = 30) of respondents report using only one method of SDI. The majority of those who engage in SDI report using two or more different methods to inflict injury upon themselves (84.7%; *n* = 167). Very few participants in the sample reported 10 or more different methods of SDI (4.8%; *n* = 16). Research (with adolescent samples) suggests that engagement in four or more methods of SIB typically exceeds the threshold for clinical levels of suicidal ideation (Robinson et al., 2021). Accordingly, 47.7% (*n* = 94) of those reporting SDI may also be suicidal. Analysis regarding

the specific methods of SDI and who endorses them is presented in depth in Table 9 later in this chapter.

Table 5

Frequency of engagement in different self-directed injurious behaviours (SDIBs)

Number of engaged SDIBs	Number of respondents (*n*)	Percentage of respondents (%)
0	145	42.4%
1	30	8.8%
2	46	13.5%
3	27	7.9%
4	14	4.1%
5	25	7.3%
6	10	2.9%
7	13	3.8%
8	8	2.3%
9	8	2.3%
10	6	1.8%
11	5	1.5%
12	1	0.3%
13	3	0.9%
15	1	0.3%

Note. N = 342. Two missing values. Valid percentages displayed. Rounding may account for discrepancy. 17 possible different SDI behaviours were available for selection. There were no participants who selected 14 or more than 15 different behaviours.

Outward-directed Injury (ODI)

Any injurious behaviour which was classified as outward-directed was transformed into a separate variable labelled ODI (see TABLE 4, Chapter 3 for the five survey items relating to these behaviours). This new variable represents the general presence of this class of behaviours. Overall, 33.2 % (*n* = 114) of our sample reported engagement in one or more of these behaviours. However, fewer people report engagement in ODI (*M* = 0.54; *SD* = 0.96) than they do SDI (*M* = 2.49; *SD* = 3.17). Most who engage in ODI report only using one method (20.7%; *n* = 71). Analysis regarding the number of various methods in which a participant engaged was explored (see Table 6 below). Analysis regarding the specific methods of ODI and who endorses them is presented in depth in Table 9 later in this chapter. An analysis of dual engagement in both SDI and ODI will also be addressed later in this chapter.

Table 6

Frequency of engagement in different outward-directed injurious behaviours (ODIBs)

Number of engaged ODIBs	Number of Respondents (*n*)	Percentage of respondents (%)
0	229	66.8%
1	71	20.7%
2	26	7.6%
3	8	2.3%
4	6	1.7%
5	3	0.9%

Note. N = 343. One missing value. *Seven possible different ODI behaviours were available for selection. There were no participants who selected six or all seven of the different behaviours.*

AGE: Influence on SIBs

Younger participants reported engagement in both Lifetime SDI and Lifetime ODI much more frequently than those who were older (see Table 7 including notes on rounding). Participants who were aged 25 or younger comprised 74.5% of those engaging in Lifetime SDI (*n* = 146) and compare to 25.5% (*n* = 50) for those aged over 50. Likewise, those aged 25 or younger comprised 65.5% (*n* = 74) of Lifetime ODI engagement compared the over 50 age group at 34.6% (*n* = 39).

Table 7

SDI and ODI Lifetime Status according to Age

Age	Lifetime SDI		Lifetime ODI	
	n	% of SDI	*n*	% of ODI
18 and under	37	18.9%	17	15.0%
19 – 20	48	24.5%	28	24.8%
21 – 25	61	31.1%	29	25.7%
26 – 30	17	8.7%	15	13.3%
31 – 35	20	10.2%	13	11.5%
35 – 40	4	2.0%	3	2.7%
41 – 50	8	4.1%	7	6.2%
Over 50	1	0.5%	1	0.9%

Note. Lifetime SDI: *n* = 341, 3 missing values. Lifetime ODI: *n* = 342, 2 missing values, total percentage of ODI is 100.1 due to rounding.

GENDER: Influence on SIBs

SDI Status by Gender

Lifetime SDI was a variable created to distinguish between those who engage in any (one or more) of the specific self-directed methods and those who do not. We conducted a

chi-squared test of independence for Lifetime SDI by Gender to test the hypothesis that there are differences in self-directed injury according to gender. We found this relationship to be statistically significant $\chi^2(2, N = 341) = 11.16$, $p = .004$. Notably, the Lifetime SDI Group ($n = 196$) has a discrepancy from our straight SDI calculations ($n = 197$). This is due to one person who qualifies for membership in Lifetime SDI failing to indicate any gender. This is consistent with our participant demographics (see Table 1) where we have one missing case for gender.

Lifetime SDI consists predominantly of females ($n = 159$; 81.1%) as opposed to males ($n = 28$; 14.3%). More men reported they had never engaged in SDI than would be expected and fewer men than expected disclosed SDI engagement. Whereas the reverse pattern was true of females. Fewer women than expected reported they had never engaged in SDI and more females than expected disclosed SDI engagement (See Table 8 below). Notably, when asked if “Self-injury is a female problem” (Q57_1, see Appendix B), participants overwhelmingly disagreed ($n = 65$; 18.9%) or strongly disagreed ($n = 220$; 64%) among all participants answering this item (N = 344).

ODI Status by Gender

Lifetime ODI was a variable created to distinguish between those who engage in any (one or more) of the specifically outward-directed methods and those who do not. Again, we conducted a chi-squared test of independence for Lifetime ODI by Gender to test our hypothesis regarding the importance of gender on outward-directed injury. Similarly, we found this relationship to be statistically significant $\chi^2(2, N = 342) = 7.09$, $p = .03$. Overall, more men than expected disclosed engagement in ODI. The converse was true of females. Fewer women than expected disclosed engagement in ODI (see Table 8).

Table 8

Frequencies, Chi-Square Results for Lifetime SDI and ODI by Gender

Lifetime	Male		Female		Non-binary		$X^2(2)$
	n	%	*n*	%	*n*	%	
	Actual (Expected)	Actual	Actual (Expected)	Actual	Actual (Expected)	Actual	
SDI							11.16*
None	40 (28.9)	27.6%	103 (111.4)	71.0%	2 (4.7)	1.4%	
Present	28 (39.1)	14.3%	159 (150.6)	81.1%	9 (6.3)	4.6%	
ODI							7.09**
None	41 (45.5)	17.9%	184 (176.1)	80.3%	4 (7.4)	1.7%	
Present	27 (22.5)	23.9%	79 (86.9)	69.9%	7 (3.6)	6.2%	

Note. SDI = self-directed injury; *N* = 341; 3 missing cases. ODI = outward-directed injury, *N* = 342; 2 missing cases. X^2 = chi-square statistic; (*df)* = degrees of freedom (2); *p* = p-value. **p* = .004. ***p* = .029.

A multivariate analysis of variance (MANOVA) was conducted to assess the effects of gender on SDI and ODI. There was a significant multivariate effect of gender on the combined variables, Wilk's Lambda = .92, F(4, 674) = 7.29, $p < .001$, $\eta_p^2 = .04$. There were significant main effects of gender on both Lifetime SDI, F(2, 338) = 6.45, $p = .002$, $\eta_p^2 = .04$, as well as Lifetime ODI, F(2, 338) = 3.99, $p = .019$, $\eta_p^2 = .02$.

Our data depicts 'reverse patterns' in that women are disclosing more forms of SDI and have higher SDI scores (*M* = 2.64; *SD* = 4.15) than men (*M* = 1.51; *SD* = 2.28); whereas men are reporting more ODI and have higher ODI scores (*M* = 0.81, *SD* = 1.25) than women (*M* = 0.45, *SD* = 0.87).

Methods of SIB by Gender

Each method of self-injurious behaviour from our survey was examined to identify the presence of significant relationships between the variables. Table 9 identifies the classification of each behaviour as SDI or ODI and compares the reported engagement in

these methods with the gender categories of male and female. Careful consideration was given for the inclusion of exact *p* values in Table 9 for each of the specific methods of SI. It was decided that the inclusion, although contrary to the format of other tables in this paper, would allow the reader to contemplate and compare each behaviour's proximity to statistical significance. Non-binary data is reported separately later in this chapter due to the relatively small number of these participants. Participants were permitted to select multiple methods of SIB. It is important to note that for the statistical tests associated with Acid on Skin, Burns, Ingestion of Caustic or Sharp Objects, Broke Bones, and Mutilated Genitals, over 20% of cells have expected counts less than five. This is an inherent limitation of Chi-Square tests which have radically reduced power if cell frequencies are very small (Haberman, 1988). Therefore, caution should be exercised when interpreting data pertaining to these methods. Also of note, a Bonferroni correction was calculated for each group of SIB using an online calculator tool (Statology, 2021, February 16). For SDI, the original α = .05 and the number of comparisons was set to 17 meaning the adjusted α = .00294. Similarly for ODI, the original α = .05 with the number of comparisons set to five created an adjusted α = .01.

Table 9

Self-Injurious Behaviour (SIB) type as compared to Gender

Type of SIB Engagement	Male		Female		$X^2(2)$	*p*
	Number (*n*)	Percent (%)	Number (*n*)	Percent (%)		
SDI						
Scratched / Pinched	18	39.0%	133	83.1%	18.35	<.001
Cutting	13	10.2%	109	85.2%	13.04	.001
Acid on Skin	0	0.0%	5	100.0%	1.53	.465
Burns (ice / salt)	4	16.0%	20	80.0%	0.30	.863
Carved on Skin	8	14.5%	43	78.2%	4.30	.116
Ingestion of caustic or sharp objects	1	6.3%	12	75.0%	14.13	<.001
Bitten	7	13.2%	42	79.2%	5.11	.078
Tried to Break Bones	2	8.3%	21	87.5%	2.20	.333
Broke Bones	2	28.6%	5	71.4%	5.25	.769
Rip / Torn Skin	7	12.5%	46	82.1%	3.05	.218
Strangulation	4	10.8%	30	81.1%	4.90	.086
Other Burns Upper Body	5	9.4%	45	84.9%	5.25	.073
Sharp Objects in Skin	5	10.9%	38	82.6%	4.26	.119
Banged or Punched Self	10	14.5%	55	79.7%	3.19	.203
Prevent Wounds Healing	7	11.1%	52	82.5%	5.76	.056
Mutilated Genitals	0	0.0%	1	100.0%	0.31	.858
Pulling Hair Out	10	20.8%	34	70.8%	4.64	.098
ODI						
Banged or Punched objects	23	26.4%	58	66.7%	9.18	.010
Fighting or aggressive activities	10	58.8%	7	41.2%	17.78	<.001
Picked a fight	8	30.8%	18	69.2%	2.92	.232
Annoy or verbally abuse someone to elicit self-harm	9	24.3%	26	70.3%	1.29	.524
Physically assaulted someone	5	29.4%	12	70.6%	1.55	.460

Note. N = 341. Percentages are representative of those who engaged in the stated behaviour. Non-binary gender data is reported separately to equal 100%. X^2 = chi-square statistic; (*df)* = degrees of freedom (2); *p* = p-value. Exact *p* values have been included for each behaviour for comparison. SDI = self-directed injury; 2 missing values; Bonferroni adjusted α = .00294. ODI = outward-directed injury; either seven or eight missing cases depending on method; Bonferroni adjusted α = .0125.

SDI Method Prevalence

In general, females showed higher engagement rates across all the SDI behaviours surveyed (see Table 9). Cutting was the most frequently reported method of SDI by females (85.2%) and significantly overshadowed males (10.2%), χ^2 (2, *N* = 341) = 13.04, *p* = .001. Scratched / Pinched was also found to be significantly more prevalent among females (83.1%) than males (39%), χ^2 (2, *N* = 341) = 18.35, *p* = <.001. While less common overall, Ingestion of Caustic or Sharp Objects was reported significantly more often by females (75%) than males (6.3%), χ^2 (2, *N* = 341) = 14.13, *p* = <.001. Although the remaining SDI behaviours were statistically insignificant according to gender, they are noteworthy. First, some behaviours, such as Mutilating Genitals' and Acid on Skin, were rare or not reported at all by males. Additionally, 21 females reported trying to break their own bones, which was more than expected; whereas only two males reported this method which was less than half of the expected count. Although, the low cell counts of these methods should be highlighted.

ODI Method Prevalence

Fighting or Aggressive Activities was significantly more common among males (58.8%) as compared to females (41.2%), %), χ^2 (2, *N* = 341) = 17.78, *p* <.001. In contrast, Banged or Punched Objects was significantly more common among females (66.7%) than males (26.4%), χ^2 (2, *N* = 341) = 9.18, *p* = .01. The other three ODI methods were not found to be significantly associated with gender (see Table 9).

SDI and ODI Correlation to Gender

We first conducted an independent samples t-tests to compare SDI and ODI scores between only male and female participants (previous analysis included non-binary participants). For SDI, Levene's test for equality of variances indicated unequal variances (*F* = 7.94, *p* = .005) so degrees of freedom were adjusted from 328 to 146. Females reported significantly higher SDI scores (*M* = 2.64, *SD* = 3.25) than males (*M* = 1.51, *SD* = 2.28), t(146) = - 3.28, *p* = .001, *d* = - 0.36. For ODI, Levene's test also indicated unequal variances

(F = 15.02, p < .001) so degrees of freedom were adjusted from 329 to 85. Males reported significantly higher ODI (M = 0.81, SD = 1.25) than females (M = 0.46, SD = 0.87), t(85) = 2.17, p =.033, d = 0.36.

Second, we computed a Pearson correlation coefficient to examine the relationship between SDI and ODI scores. SDI and ODI were found to be moderately positively correlated, r (342) = .36, p < .001 (see Table 12). This result illustrates that an increase in SDI scores coincides with an increase in ODI scores. This statistically significant finding suggests that participants who engage either SDI or ODI may be somewhat more likely to engage the other class of SIB as well. Notably, the relationship is moderate which indicates that there are likely other contributing factors. Overall, this positive, statistically significant, moderate correlation confirms similarities between the two constructs.

Non-Binary Gender Category and SDI / ODI Status

A small number of non-binary participants (NBP) contributed to this survey (n = 11). They were included in the some of the statistical analyses identified above and are reported separately here. Although these results represent a non-significant trend, it was decided to include them here separately for consideration as there is little research which includes non-binary participant data.

In our MANOVA conducted to assess the effects of gender on Lifetime SDI and ODI (as mentioned previously pertaining to only male and female gender identities), NBP reported significantly more SDI *(*M = 4.73, SD = 4.15) than either males (M = 1.51, SD = 2.28) or females (M = 2.64, SD = 3.25). Alternately, NBP reported ODI engagement (M = 0.73, SD = 0.65) in between males (M = 0.81, SD = 1.25) and females (M = 0.45, SD = 0.87). Post-hoc comparisons using the Tukey HSD test indicate that the differences between NBP and males for SDI was found to be statistically significant (p = *.005)*. The difference between NBP and males for ODI was not (p = .96). None of the comparisons with NBP and females were significant (SDI, p = .076; ODI, p = .62). This result is likely due to our lack of statistical power due to the inclusion of such a small group.

In summary, NBP reported Ingestion with the highest prevalence (18.8%) of SDI methods and it was significantly associated with non-binary gender identity, $\chi^2(2, N = 341) = 14.13$, $p < .001$. Notably, Ingestion had over 20% of cells with expected counts less than five. Therefore, caution should be exercised when interpreting data pertaining to these methods. Scratched / Pinched (5.6%), $\chi^2(2, N = 341) = 18.35$, $p = <.001$, and Cutting (4.7), $\chi^2(2, N = 341) = 13.04$, $p = .001$, were the next most prevalent statistically significant methods of SDI for NBPs. The only significant ODI behaviour present was Banged or Punched Objects, $\chi^2 (2, N = 341) = 9.18$, $p = .01$, at 6.9%. Additional data regarding NBP engagement in specific methods of injurious behaviours can also be found in Appendix I.

ETHNICITY: Influence on SIBs

Chi-squared tests of independence were conducted to explore ethnicity in terms of Lifetime SDI or ODI engagement. There was no difference across ethnicity for Lifetime SDI, $\chi^2(4, N = 342) = 2.83$, $p = .59$. Nor was there any difference across ethnicity for Lifetime ODI, $\chi^2(4, N = 343) = 8.83$, $p = .065$.

AFFECT: Influence on SIBs

A multivariate ANOVA (MANOVA) was conducted to assess if depression, anxiety, and stress differed by Lifetime SDI or ODI. Particularly, we used this analysis to test the hypothesis that emotional distress precipitates engagement in SIBs. There were significant multivariate results for Lifetime SDI, Wilk's Lambda = .92, $F(3, 336) = 9.88$, $p < .001$, $\eta_p^2 = .08$, and for Lifetime ODI, Wilk's Lambda = .95, $F(3, 336) = 5.61$, $p < .001$, $\eta_p^2 = .05$. Additionally, there was a significant multivariate interaction effect, Wilk's Lambda = .97, $F(3, 336) = 3.14$, $p = <.05$, $\eta_p^2 = .03$.

There were significant main effects of Lifetime SDI on all three of the DASS-21 subscales: Stress, $F(1, 338) = 10.82$, $p = .001$, $\eta_p^2 = .03$; Anxiety, $F(1, 338) = 28.66$, $p = <.001$, $\eta_p^2 = .08$; and Depression, $F(1, 338) = 15.66$, $p < .001$, $\eta_p^2 = .04$. Furthermore, there were also significant main effects of Lifetime ODI on all three DASS-21 subscales: Stress,

F(1, 338) = 15.53, p = <.001, η_p^2 = .04; Anxiety, F(1, 338) = 7.02, p = .008, η_p^2 = .02; Depression, F(1, 338) = 11.28, p = <.001, η_p^2 = .03.

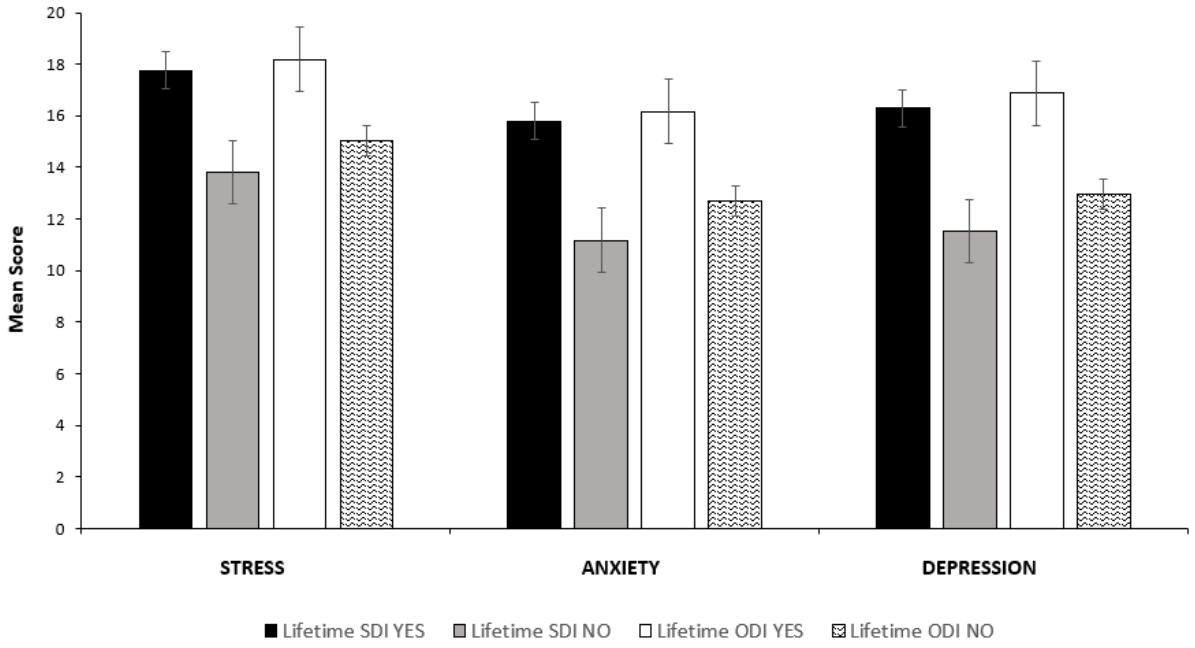
Within the DASS-21 Stress Scale, Lifetime SDI reported significantly more stress than the No Lifetime SDI. Likewise, the Lifetime ODI also reported significantly more stress than their No Lifetime ODI counterparts (See *Figure 1*).

Within the DASS-21 Anxiety Scale, Lifetime SDI reported significantly more anxiety (*M* = 15.79, *SD* = 5.14) than No Lifetime SDI (*M* = 11.18, *SD* = 3.46). Similarly, Lifetime ODI reported significantly more anxiety (*M* = 16.16, *SD* = 4.85) than No Lifetime ODI (*M* = 12.69, SD = 4.74).

Within the DASS-21 Depression Scale, Lifetime SDI reported significantly higher depression *(M* = 16.29, *SD* = 6.00) than No Lifetime SDI (*M* = 11.52, *SD* = 4.08). Additionally, Lifetime ODI were significantly more depressed (*M* = 6.88, *SD* = 5.32) than No Lifetime ODI (*M* = 12.98, *SD* = 5.55).

Figure 1

Mean DASS-21 Subscales according to Lifetime SDI and ODI Status



Note. Exact means and standard deviations can be found in Table 15 located in Appendix J. Error bars show average 95% confidence interval across class of lifetime behaviour.

Consistently, all measures of Stress, Anxiety, and Depression were higher among those who report engagement in SDI than those who do not. Correspondingly, higher levels of Stress, Anxiety, and Depression are present in those who engage in ODI as compared to those who do not. Ultimately, those who report any sort of SIBs are more stressed, anxious and depressed; and those who engage in ODI are the most highly distressed of everyone (see Figure 1). We also identified a marginally effected multivariate interaction with a significant interaction between only one of the three variables, that being Stress, $F(1, 338) = 6.19$, $p = .013$, $\eta_p^2 = .02$.

REPORTED FUNCTIONS of SIBs

We explored the frequencies of the reported functions of self-injurious behaviours to test the hypothesis that many use these as a means of managing negative emotions.

SDI Functions - Frequency

Respondents' reported functions of SDI were captured using variables aggregated into the five groups defined by Whitlock et al. (2014) from the NSSI-AT as detailed in Chapter 3. Affect Imbalance, incorporating both high and low, was the most endorsed function followed by Self-Retribution and Sensation Seeking. Social Communication and Expression was notably less prevalent than other reported functions (See Table 10 below).

Table 10

Frequencies of Five NSSI-AT Functions for SDI

Function	Number (*n*)	Percentage (%)
Affective Imbalance, Low Pressure	158	45.9%
Affective imbalance, High Pressure	154	44.8%
Social Communication and Expression	42	12.2%
Self-Retribution and Deterrence	107	31.1%
Sensation Seeking	78	22.7%

Note. N = 199. Participants were able to select all response options applicable to themselves.

SDI Functions and Gender

A one-way MANOVA was conducted to assess the effects of gender on the five functions from the NSSI-AT. There was no statistically significant multivariate effect for

function endorsement by gender for Affect (Low or High Pressure), Social Communication and Expression, Self-Retribution and Deterrence, nor Sensation Seeking, Wilk's Lambda = .95, $F(10, 382) = 1.06$, $p = .39$, $\eta_p^2 = .03$.

ODI Functions - Frequency

Anger reduction was the most endorsed function of ODI behaviours (12.5%; *n* = 43). The reduction of sadness / depression, anxiety, and frustration were all equally endorsed at 9.3% (*n* = 32). Some identified that lashing out helped reduce their suicidal feelings (6.7%; *n* = 23). Punishment was identified by 4.7% of respondents (*n* = 16). Whereas, having fun or enjoyment was the least endorsed function of ODI (3%; *n* = 7).

Table 11

Frequencies of ODI Functions [Q62]

Function [survey item]	Number (*n*)	Percentage (%)
Reduce sadness / depression [Q62_1]	32	9.3%
Reduce anxiety / worry [Q62_8]	32	9.3%
Reduce frustration [Q62 _9]	32	9.3%
Reduce anger [Q62_10]	43	12.5%
Reduce suicidal feelings [Q62 _11]	23	6.7%
Have fun / for enjoyment [Q62_12]	7	2.0%
Be punished [Q62_14]	16	4.7%

Note. N = 343. Participants were able to select all response options applicable to themselves.

ODI Functions and Gender

A one-way MANOVA was conducted to assess the effect of gender on the seven available functions for ODI as detailed in survey item Q62 (see Appendix B). A statistically significant multivariate main effect for gender was identified, Wilk's Lambda = .92, F(14, 668) = 2.14, p = .009, η_p^2 = .04.

It was identified that there was a statistically significant effect of gender on the function of 'Have fun / enjoyment (rather than to reduce unpleasant emotions)', F(2, 340) = 4.98, p = .007, η_p^2 = .03, as well as Punishment, F(2, 340) = 5.93, p = .003, η_p^2 = .03. Males used ODI behaviours for enjoyment (M = 0.06, SD = 0.24) more than females (M = 0.01, SD = .09). Additionally, men were also more likely to report using ODI as punishment (M = 0.10, SD = 0.30) than females (M = .03, SD = 0.16). However, gender did not have a statistically significant effect on the other proposed functions of ODI: Reduce Sadness, F(2, 340) = 1.35, p = .260, η_p^2 = .008; Reduce Anxiety / Worry, F(2, 340) = 0.59, p = .557, η_p^2 = .003; Reduce Frustration, F(2, 340) = 0.86, p = .42, η_p^2 = .005; Reduce Anger, F(2, 340) = 0.57, p = .57, η_p^2 = .003; nor Reduce Suicidal Feelings, F(2, 340) = 1.83, p = .16, η_p^2 = .01

Correlations between SDI, ODI, and NSSI-AT Functions

We calculated Pearson correlation coefficients to examine the relationship between SDI and ODI scores and the five function groups from the NSSI-AT which is summarised in Table 12 below. SDI was strongly positively correlated with four out of the five NSSI-AT function groups (Affect Low Pressure, Affect High Pressure, Self-Retribution and Deterrence, and Sensation Seeking). ODI showed weaker correlations overall with the strongest being a small positive with Affect High Pressure. Additionally, Affect Low and Affect High Pressure were moderately positively correlated, with both displaying moderate to strong correlations with Self-Retribution and Sensation Seeking. Similarly, Self-Retribution and Deterrence displayed a moderately positive correlation with Sensation Seeking. Whereas, Social Communication and Expression showed primarily weak correlations with other variables.

Table 12

Descriptive Statistics and Correlations for SDI, ODI, and NSSI-AT Function Groups

Variable	*n*	*M*	*SD*	1	2	3	4	5	6	7
1. SDI	342	2.49	3.17	--						
2. ODI	343	0.54	0.96	.36**	--					
3. Affect Low Pressure	199	0.53	0.36	.54**	.09	--				
4. Affect High Pressure	199	0.52	0.38	.51**	.22**	.55**	--			
5. Social Communication and Expression	199	0.08	0.17	.18**	.08	.19**	.10	--		
6. Self-Retribution and Deterrence	199	0.30	0.35	.60**	.17*	.59**	.53**	.21**	--	
7. Sensation Seeking	199	0.18	0.26	.54**	.14	.47**	.50**	.23**	.45**	--

Note. SDI = self-directed injury scores for number of SDIBs (as identified in Table 5), *N* = 342, two missing values. ODI = outward-directed injury scores for number of ODIBs (as identified in Table 6, *N* = 343, one missing value. Items three through seven represent the five function groups of the NSSI-AT, *n* = 199, participants were able to select all applicable responses.

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

Dual Engagement in both SDI and ODI

Of the total 344 participants, 28.8% (*n* = 99) reported engagement in both SDI and ODI. A chi-square test of independence revealed no statistical significance between gender and engagement in both SDI and ODI, $\chi^2(2, N = 343) = 3.76$, $p = .15$ (one missing value for gender).

A one-way MANOVA was conducted to explore differences between dual SDI / ODI engagement and non-engagement as compared to their respective DASS-21 subscale scores. The difference between the two was found to statistically significant, Wilk's Lambda = .87 $F(3, 340) = 17.33$, $p < .001$, $\eta_p^2 = .13$. Examination of subsequent univariate ANOVAs

showed that DASS subscale scores were all statistically significant and higher for Stress, Anxiety, and Depression within the dual engagement group (see Table 13 below).

Table 13

Descriptive Statistics, One-Way ANOVA for DASS-21 Subscales according to Dual Engagement (SDI & ODI)

DASS-21 Subscale	Dual Engagement		Non-Dual Engagement		F(1, 342)	η_p^2
	M	*SD*	*M*	*SD*		
Stress	18.25	3.98	15.21	4.77	31.47*	.08
Anxiety	16.60	4.82	12.72	4.69	47.37*	.12
Depression	17.15	5.32	13.09	5.52	38.84*	.10

Note. N = 344. Dual engagement of SDI and ODI (*n* = 99). Non-Dual Engagement includes those who reported a singular class of SIB or none at all.

*p < .001.

Results Summary

The rates of NSSI captured in this study are consistent with other data from domestic samples across New Zealand over the past decade (Fitzgerald & Curtis, 2017; Garisch & Wilson, 2015; Robinson & Wilson, 2020).

Gender and methods of NSSI

Gender was found to play a significant role in both SDI and ODI. Females were found to endorse SDI more frequently than males, whereas males endorsed ODI more than females. More men reported never engaging in SDI than would be expected and fewer men disclosed engagement in SDI than expected. The reverse pattern was true of females. Fewer women reported never engaging in SDI than would be expected while more females

than disclosed engagement in SDI than expected. For ODI, Fighting or Aggressive Activities was notably more common among males, whereas Banged or Punched Objects was significantly more common among females. Fundamentally, SDI and ODI were found to be moderately positively correlated – with an increase in one coinciding with an increase in the other. This statistically significant finding suggests that participants who engage either SDI or ODI may be somewhat more likely to engage the other class of SIB as well. Overall, this positive, statistically significant, moderate correlation confirms similarities between the two constructs.

Emotional Distress and SIBs

Overall, we found that people who hurt themselves through either SDI or ODI tend to report more psychological distress. Further, SIB engagement appears to be additive in terms of distress. Specifically, those who engage in SDI are more distressed than those who do not engage in SIB, whilst those who engage in ODI are more distressed than those who engage in SDI. Ultimately, those who engage in both SDI and ODI (dual engagement) appear to be the most distressed, displaying higher levels of all three DASS-21 subscales of Stress, Anxiety, and Depression than those who engage in only class of SIBs. People who report neither SDI nor ODI are the least stressed participants in our sample.

Reported Functions of SIBs

Emotion regulation appears to be a primary function for engagement in both SDI and ODI. Self-Retribution and Punishment are also dominant functions, whereas Social Communication and Expression was endorsed less frequently. Gender was only found to have a significant multivariate effect upon ODI and not SDI functions. Specifically, it was found that gender has remarkable and statistically significant relationship when considering the reported functions for ODI. Notably, possible responses pertaining to ODI functions did not include a range of options like those devised by the NSSI-AT which is a limiting factor for capturing functions other than emotion regulation for ODI.

Chapter 5: Discussion

This chapter will compare how the results of this study align with the three original research hypotheses. Additionally, comparisons will be drawn between this study's findings and previous research as detailed in the Literature Review. Further, the limitations and implications of this study will be considered. Ultimately, suggestions and recommendations will be offered regarding how this study might help inform future policies and programmes surrounding SIB and harm reduction in Aotearoa New Zealand.

Findings related to hypotheses

This study sought to explore commonalities and differences between self-directed (SDI) or outward-directed (ODI) injurious behaviours using a sample of participants from university and general populations who typically reside in AoNZ. The analytical focus of the data concentrated on hypotheses relating to how gender, emotional distress, and functionality might influence engagement in these harmful behaviours. Ultimately, the aim is to expand understanding and potentially guide prevention and intervention efforts towards harm reduction.

(H1) There are significant differences regarding SDI and ODI engagement according to gender.

Statistical analysis of lifetime SDI and lifetime ODI behaviour in this study confirms anticipated significant differences regarding SIBs according to gender which contradicts some research which found no significant gendered distinctions for NSSI engagement (Garisch & Wilson, 2015; Kimbrel et al., 2018; Nester et al., 2023). In the present study, females reported significantly higher SDI engagement than males which corroborates the higher prevalence of SIBs among females identified by both international (Moran et al., 2024; Steinhoff et al., 2023; Whitlock et al., 2011) and domestic research (Fitzgerald & Curtis, 2017; Robinson et al., 2019). Although SIB engagement can vary significantly based upon gender, stereotypes may contribute to accepting certain statistics without warranted

scrutiny (Curtis & Terry, 2023). Therefore, it is important to consider a multilevel analysis of influential factors over and above the individual level.

A recent Lancet Commission on self-harm (2024) highlighted some interesting social and cultural factors which transcend individual attributes and may account for some of the overwhelmingly female SIB engagement. The Commission identified numerous societal influences such as: domestic violence, sexual harassment / discrimination, trauma related to gendered violence which disproportionately have a negative effect on women's health and wellbeing. Further, the Lancet authors identified the dramatic inequities women face regarding education, employment, leadership opportunities, wage earnings, and an oppressive imbalance of unpaid care work for children and other family members may also contribute to increased SI engagement (Moran et al., 2024). All of these factors could reasonably contribute to cumulatively higher stress levels in women compared to their male counterparts. As this study illustrates through comparison of DASS-21 scores and behaviours, higher stress levels translates into significantly higher SDI and ODI engagement. Understanding the broader implications of societal and environmental pressures on women is imperative to a deeper understanding of what may drive their higher engagement in SIBs and help inform bespoke support.

Not unxpectedly, the current study found that men reported significantly more ODI engagement than did females which aligns with contemporary gender expectations and current research (Curtis & Terry, 2023; Kimbrel et al., 2018; Steinhoff et al., 2023). Additionally, this finding reinforces previous research proposing that females tend to internalise aggression (SDI) while males tend to externalise it (ODI) (Chaplin & Aldao, 2013; Kramer et al., 2008). Some studies found punching objects to be the most common way males engage in NSSI (Fitzgerald & Curtis, 2017; Whitlock et al., 2011) which is also supported by our results (see Table 9). However, the current study found some interesting results which seem to contradict some gender stereotypes relating to ODIBs. For example, of those in our sample who engage in this behaviour, Banged or Punched Objects was

significantly more common among females (66.7%) than males (26.4%). This directly contradicts the findings of Kimbrel et al. (2018). Essentially, the current finding appears to support the argument by Curtis (2018) that young women who exhibit aggression (ODI) as a form of NSSI are often under-recognised.

Ultimately, ODI is a significant subset of SIB across all genders explored in this study (including non-binary participants as detailed in Chapter 4). By definition, ODI may create compounded harm as it includes other people and/or property; thus warranting increased consideration in the pursuit of harm reduction. Further, as this study indicates, people who engage in ODI are typically more stressed, anxious, and depressed overall (see Figure 1). Therefore, focussing available resources to better understand the multitude of factors that contribute and perpetuate this class of harm is essential to alleviate suffering. Fundamentally, it is clear that some aspects of ODIBs are not confined to stereotypical gender distinctions. Consequently, it is imperative to cultivate knowledge that goes beyond the superficial gender characterisations. In particular, exploration of how non-binary gender identities figure in ODIBs could offer tremendous insight in much the same way that Dual Harm research contributes to deeper comprehension of NSSI and aggression (ODI). Ultimately, issues surrounding gender are an important consideration for researching SIBs and how to incorporate these in future research will be explored later in this chapter.

Most people in this study report using more than one method of self-injury (48.9%) which aligns with previous research (e.g. Nock, 2010). Cutting was the most frequently reported method of SDI by females which was also evident in other studies (Kimbrel et al., 2018; Klonsky et al., 2014; Moran et al., 2024; Nock, 2010; Robinson et al., 2019). Fighting and aggressive behaviours was significantly more common among males in this study (58.8%) as compared to females (41.2%). This finding appears to support research that gender stereotypes purportedly help form perceptions of SI and aggression (Curtis & Terry, 2023; Kimbrel et al., 2018). Furthermore, Wilson (2024) identified that “where gender differences are identified, it is not unreasonable to suggest that this may reflect a different

kind of cultural script—in which women (particularly young women) engage in self-injury more or in particular ways (e.g., cutting) in part because that is the stereotype or expectation" (p.9). Given Wilson's argument, it may be appropriate to explore what unique cultural script is present in AoNZ that might influence such a dramatic elevation in female ODI engagement such as banging or punching objects. Interestingly, participants in our study disagreed (18.9%) or strongly disagreed (64%) with the statement that "Self-Injury is a female problem." This finding may represent a shift in attitudes and understanding of SIB among AoNZ youth in this sample.

(H2) Significant emotional distress precipitates both SDI and ODI engagement.

The findings of this study affirm that people who engage in SIBs, regardless of it being inward- or outwardly-directed, also report being significantly distressed. Those who engaged in either SDI or ODI shared higher scores across all three of the the DASS-21 subscales for Stress, Anxiety and Depression. The Lancet Commission on self-harm also found an acute onset of negative feelings is strongly associated with incidents of SH (Moran et al., 2024). Negative affect appears to have an additive effect on SIB engagement in the present study. Namely, the absence of SIBs indicate the least distress while SDI distress is higher and ODI distress is higher still (See Figure 1). Further, the data identifies that those who engaged in both SDI and ODI were the most stressed, anxious and depressed of all participants (see Table 13). This important finding appears to coincide with research pertaining to dual harm engagement (Carr et al., 2020; Richmond-Rakerd et al., 2019; Shafti et al., 2021; Slade et al., 2022; Spaan et al., 2022; Steinhoff et al., 2023). Specifically, Spaan et al. (2022) identified that "the combination of aggression toward others and self may mark more severe psychopathology and a worse prognosis than either behaviour separately" (p.1616). Therefore, the current study adds to the chorus of research emphasising the importance of research regarding both self- and outward-directed injury. Overall, as proposed in Chapter 2, a comparison of these seemingly different behaviours captures similar antecedents of acute emotional distress leading to incidents of SI. These findings

also seem to corroborate the finding by Klonsky (2007) that acute negative affect appears to precede self-injury as a larger pattern of emotion regulation. Which leads us to examine the third and final hypothesis of this study.

(H3) A dominant function of SDI and ODI is managing negative emotions.

Intrapersonal Function. Participants in this study overwhelmingly reported that managing emotions was a prominent function of engaging in SIBs. In fact, emotion regulation was the most frequently reported function for engagement in both SDI and ODI. These findings align with international studies which identified emotion regulation as the predominant function of NSSI and aggression (Garofalo et al., 2016; Hamza & Willoughby, 2015; Hasking et al., 2017; Klonsky et al., 2014; Nester et al., 2023; Richmond-Rakerd et al., 2019; Roberton et al., 2012; Robinson et al., 2019; Taylor et al., 2018; Velotti et al., 2016). The current study found Affect Imbalance (low and high pressure) from the NSSI-AT was the most endorsed function for SDI. This reinforces domestic studies which identify that NSSI engagement is used for coping with uncomfortable emotions (Curtis, 2016b, 2017, 2018; Fitzgerald & Curtis, 2017; Garisch & Wilson, 2015; Robinson et al., 2019). Anger reduction was the most endorsed function of ODI behaviours followed by the reduction of sadness / depression, anxiety, and frustration. Accordingly, Banged or Punched Objects and Fighting or Aggressive Activities were the most frequently endorsed methods of ODI. This aligns with the research of Kimbrel et al. (2018) who found wall- / object-punching is strongly associated with relief from negative affect. Overall, this study's findings seem to be consistent with research by Shafti et al. (2021) which suggested that SI and aggression (or ODI in this instance) may be employed interchangeably due to overlapping functions.

Interpersonal Function. Historically, the primary function of NSSI was believed to be provoking a reaction from others (Klonsky et al., 2014); however, Taylor et al. (2018) found interpersonal functions were reported less frequently. The current study affirms that Social Communication and Expression was the least frequently endorsed function for SDI at only about 12%. Notably, most participants who reported engagement in SDI (*n* = 197)

identified that they always or usually intentionally hurt themselves in private (*n* =130). Inferentially, this also demonstrates that SIB serves an overwhelmingly intrapersonal rather than interpersonal function for this study's participants. This finding reinforces the need to understand what motivates SIB. In addition, this realisation could help address the stigma surrounding SIB which presumes that manipulation or control of others is the primary function.

Other Comparisons to Previous Studies

Age

Much of the recent research indicates that NSSI is most common in adolescents and young (Hasking et al., 2017; Klonsky et al., 2014; McEvoy et al., 2023; Nock, 2010; Richmond-Rakerd et al., 2019; Robinson et al., 2019; Spaan et al., 2022). This is echoed in the current study which identified overwhelmingly that almost 75% of all SDI was performed by this age group. Additionally, the present study also affirmed a significant drop off in SDI engagement by those over the age of 25 which is consistent with other research (Klonsky et al., 2014; Nock, 2010; Robinson et al., 2019). Interestingly, the current study has identified that ODI engagement remained high after the age of 25 with the reduction in engagement not as dramatic as the decrease in SDI across older age groups (see Table 7). As this seems to be a pattern contrary to that found in SDI, the mechanisms for sustaining these ODIBs at older ages could warrant further investigation.

Prevalence

Lifetime prevalence of NSSI is extremely variable with some figures around 20% (Lucena et al., 2022) or even dramatically ranging from 12 – 46% (Whitlock et al., 2014). The current study identifies almost 60% of participants engage in at least one SDI behaviour. These results are consistent with other AoNZ studies which report lifetime NSSI rates from 38% (Fitzgerald & Curtis, 2017) to 69% (Robinson & Wilson, 2020). While these results are higher than international statistics, higher SIB engagement could be explained by

heightened levels of distress captured by our devastating youth suicide rates in Aotearoa New Zealand which are the second highest of the 38 OECD countries (Gromada et al., 2020). This explanation also aligns with Garisch and Wilson (2015) who found a 50% higher prevalence of NSSI among AoNZ adolescents as compared to their overseas peers. The higher rates evident in the current study could be a consequence of self-selection bias by sample participants as proposed by some researchers (Fitzgerald & Curtis, 2017).

Ethnicity

This study found that ethnicity was not statistically significant in the engagement of either SDI or ODI. These results agree with domestic research which found no significant differences in NSSI engagement by ethnicity (Fitzgerald & Curtis, 2017; Garisch & Wilson, 2015). This is an interesting finding as Māori are often over-represented in negative statistics such as: injury, incarceration, and suicide (Fitzgerald & Curtis, 2017; Garisch & Wilson, 2015; Skipworth et al., 2023). International research also identifies that “Indigenous youth, have high rates of self-harm, with colonisation and racism playing important roles in driving the behaviour” (Moran et al., 2024, p. 3). As a few AoNZ studies seem to depict a reverse pattern regarding SIB according to ethnicity, further research is imperative to identify what protective or preventative factors Māori culture may offer rangatahi. Deeper understanding of this difference might be extended to improve outcomes in other areas and ultimately support rangatahi in a more culturally appropriate way.

Limitations

Recruitment and Research Design

Generalisability of this study’s findings are limited for a number of reasons. In particular, the survey sample consists of self-selected participants which can introduce bias (Fitzgerald & Curtis, 2017). Self-selection bias is addressed in greater detail in the context of future reseach below. Additionally, the current sample is not representative of the domestic AoNZ population due to the majority of this study’s participants being university students.

Arguably, the University of Waikato is located in a provincial area and students come from diverse backgrounds which may mean their responses are fairly representative of young people in AoNZ. Also of consideration is how the current study was framed as an exploration of emotional health. Although this was an important attribute with regard to ethics, it could be argued that this characterisation of the research may introduce some level of bias.

Survey Instrument

While every effort was made in the design and analysis of this study to ensure results are representative of our conceptualisations and sample, there are some limitations. The survey instrument contains elements from well-validated measures such as the Health and Well-being Survey (Whitlock et al., 2011) for the New Zealand context by Fitzgerald and Curtis (2017), the NSSI-AT (Whitlock et al., 2014), and the DASS-21 (Lovibond & Lovibond, 1995). However, some changes to the survey's content might allow more robust analysis of certain concepts.

For example, the literature identifies alexithymia, emotion dysregulation, and impulsivity as antecedents which manifest as uncontrollable hostile thoughts, angry feelings, or aggressive actions (Garofalo et al., 2016). The aggressive actions may then be directed inward (SDI) or outward (ODI) depending on several factors. While the DASS-21 has been repeatedly found to provide a reliable and valid measure of psychological distress (Antony et al., 1998; Henry & Crawford, 2005; Lovibond & Lovibond, 1995; Medvedev, 2023) and this study clearly demonstrates the connection between high DASS-21 scores and engagement in SIBs, it would also be sagacious to identify to what extent alexithymia, emotion dysregulation, and impulsivity also contribute. To this end, the inclusion of other well-validated measures such as the Difficulties in Emotion Regulation Scale (DERS) (Gratz & Roemer, 2004) and more emphasis on items concerning aggression may prove insightful.

Another improvement to the survey instrument might include the introduction of consistency regarding available responses regarding SDI and ODI functions. The current survey iteration limits responses for ODI functions to different emotions being regulated as

opposed to offering other non-emotion regulation functions. Although the NSSI-AT five function groups were conceptualised around non-suicidal self-injury, a future version of the survey might include NSSI-AT function group items in conjunction with ODI methods alongside their appearance referencing SDI methods. Non-emotion regulation functions identified in the NSSI-AT include: Social Communication and Expression, Self-Retribution and Deterrence, and Sensation Seeking. This would allow for more uniform comparison of the functions across inward- or outwardly-directed methods of SIB. To reduce participant fatigue or attrition, other survey items which are not directly pertinent to the refined focus could be archived in future iterations.

A final improvement to the survey instrument might include follow-up items regarding the efficacy or outcome of SIB engagement. Some studies have identified evidence that NSSI reduces negative affect (Brain et al.,1998; Haines, Williams, Brain, & Wilson, 1995; Welch, Linehan, Sylvers, Chittams, & Rizvi, 2008, as cited in Garisch & Wilson, 2015; Hamza & Willoughby, 2015). Domestic research has also demonstrated that negative affective states were reduced during and after NSSI and included a sense of relief (Garisch & Wilson, 2015). Including survey items which capture participants' perceived changes in affect according to different SI methods could provide profound insight into the perceived efficacy of certain SIBs. For example, wall- / object punching was found to be more strongly associated with post episode relief than traditional NSSI (Kimbrel et al., 2018). This understanding could lead to better interventions to identify non-harmful solutions which provide similar impacts for emotion regulation. Furthermore, this SIB ER perceived efficacy data could provide another perspective from which to examine the commonalities and differences between SDI and ODI. Admittedly, a delicate balance must be struck between gathering pertinent information and avoidance of participant fatigue and attrition. Consequently, inquiry into the perceived efficacy of specific SIB methods may be a separate area for future research.

Survey Analysis

The survey instrument was curated by Fitzgerald and Curtis (2017) to collect data regarding NSSI in an Aotearoa New Zealand context. Various iterations have been utilized domestically to collect data pertaining NSSI in comparison with suicide (Robertson, 2021) and now the novel construct of ODI. The survey itself captures a wealth of data surrounding these constructs as well as a myriad of risk factors such as adverse life events (ALEs), family and intimate relationships, and emotional and physical abuse. Much of this data could be utilised for a more in depth investigation into the overlap of risk factors and vulnerabilities which correspond to increased SDI or ODI engagment; however, analysis of social and cognitive SDI and ODI risk factors was outside the scope of the present analysis.

Implications

Future Research

The greatest obstacle in the study of SIB is researchers' utilisation of vague and inconsistent terminology (Nock, 2010) which can influence prevalence rates and facilitate consistent assessment across various measures (Hooley et al., 2020). Consequently, the universal implementation of well-defined constructs is essential for the advancement of research (Klonsky et al., 2014). Hooley et al. (2020) suggest that one path forward is that researchers adopt definitions which are consistent with the measure they employ rather than an ideal definition. This suggested path does not seem to narrow the multiplicity of terms used to capture differing types of SIB nor subsequently aid in the advancement of consistent terminology. Reflexively, it is noted that the present study may be contributing to confusion with the introduction of new terms (SDI & ODI) and reliance on SIB instead of using NSSI (due to intent being unclear in many instances). This issue captures the complexity and nuance of the behaviours involved. Although a solution regarding the best approach to this issue is outside the scope of the current study, it is an ever-present consideration for all research.

Non-suicidal self-injury was conceptualised as a subject of inquiry to recognise SIBs which were devoid of an intent to die, the premise being that this behaviour serves some function other than ending one's life. While this may be true, sometimes accidental deaths have been found to occur as a result of self-injury, even in the absence of suicidal intent (Steeg et al., 2019). Moran et al. (2024) identifies that some researchers assert there are difficulties with the construct of NSSI and, given the association between NSSI and suicidal behaviour, self-harm may exist on a continuum. Explicitly, "motivations and intent are fluid, that the behaviours often overlap, and even so called non-suicidal behaviours are associated with current suicide ideation and future suicide" (Moran et al., 2024, p. 6). Often, suicidal intent may not always be clear; as is the case in the current study, survey items ask if behaviours were done 'with the purpose of intentionally hurting yourself' (see Appendix B for complete wording of items Q59, Q60 and Q61) and do not differentiate if that purpose was to end one's life. Fundamentally, the preoccupation with the existence of suicidal intent may offer some limited clinical utility while diminishing the severity of harmful behaviours in its absence (Aggarwal et al., 2017; Moran et al., 2024). Ultimately, labelling SIB as non-suicidal could minimise concern and inadvertently restrict access to essential professional support which might prevent further harm – particularly in overburdened health systems (Moran et al., 2024).

Similarly, further exploration of the construct of ODI may need to address issues surrounding intent. It would appear that forms of ODI such as wall- / object-punching, picking fights, and aggressive behaviour are instances of acute, overwhelming, emotion dysregulation according to this study. Fundamentally, it may be difficult to discern if the intent behind ODIBs is to harm oneself or others. Presumably, ODI engagement could include intent to harm both. Further, self-reflection on intent may be limited or impossible to the actor given the presence of acute distress, alexithymia, and impulsivity that appear characteristic of those who engage in SIBs. Importantly, it seems absurd to imagine wall- / object-punching as being a means of completing suicide. In this regard, characterising behaviours which

could not theoretically nor practically result in death as NSSI seems superfluous. Pragmatically, the intent behind ODI may be obscured or fluid. Subsequently, characterisation strictly by intent may be an unnecessary distinction that serves to further confound understanding of the practice.

Fundamentally, it could be argued that aggression underlies both SDI and ODI with the fundamental distinction being the target of that aggression. Thus, cultivating a better understanding of aggression becomes requisite for better understanding all injurious behaviour. Future research could further explore aggression as an immediate intention to cause harm as proposed by Roberton et al. (2012) regardless of the recipient, concurrently incorporating the three underlying components of aggression: hostile thoughts, angry feelings, and aggressive actions (Garofalo et al., 2016) with the three antecedents of human aggression: alexithymia, emotion dysregulation, and impulsivity put forth by Velotti et al. (2016). This contextualisation of aggression as a precipitating factor could yield insights into its prevention and management before it manifests as injurious behaviour.

Managing self-selection and the inclusion of more representative samples in future research would also assist in the expansion of knowledge surrounding SIBs. Importantly, Fitzgerald and Curtis (2017) proposed that “students with a history of self-harming were more likely to complete the survey introducing a self-selection bias” in their study (p.161). In this respect, self-selection has the potential to inadvertently skew research and may confound findings. This is echoed by Robinson et al. (2023) whose research identifies systematic differences surrounding who willingly takes part in NSSI research. In particular, this domestic research identified that men, older age groups, those with lived and recent NSSI experience were more likely to participate. Consequently, it was recommended that “future research should implement methodological and statistical approaches to mitigate the impact of self-selection bias on NSSI research” (Robinson et al., 2023, p.843).

Interestingly, the current study depicts some findings outside of expectations, especially regarding gendered issues. For example, a high number of females reported

trying to break their own bones (*n* = 21) which was more than expected. Conversely, only two males reported engagement in this SIB, which was less than half the expected count. This is a reversal of other internation and domestic research (Garisch & Wilson, 2015; Whitlock et al., 2014). Although this gender difference for trying to break bones was not found to be statistically significant in the present study, it does highlight an unanticipated trend that may warrant further investigation. In addition, this study found a significant amount of females (41.2%) participated in Fighting or Aggressive Activities. This is currently understood as uncharacteristic of female SIB (Curtis & Terry, 2023; Mann et al., 2024) and could be further investigated to identify any cultural or other factors which might contribute to this higher engagement in an AoNZ context.

It is important to note that female participants outnumber males in the current study by almost four to one. Consequently, it is possible that higher participation rates by females in some research could skew understanding of the issues as discussed above. This premise is reinforced in research which identifies that men are more reluctant to disclose SIB and negative emotions (Tofthagen et al., 2022). Accordingly, future research surrounding ODI and aggression must be designed to amplify and record less dominant voices on the subject. Notably, the current study illustrates that non-binary voices would appear to have much to say and are woefully under-represented in contemporary research. Overall, future research must ensure that all voices are heard in terms of the opportunity to convey their experiences to ensure a well-rounded and comprehensive understanding of the issue.

As mentioned in this paper's first chapter, the present survey and resultant data are part of a broader investigation into NSSI and ODI called The SHInE Project. This emotional well-being research is incorporating both quantitative and qualitative research methods while inviting a cross section of participants ranging from young people to the professionals that work to help support them. Professional participants (or key informants) include the likes of counsellors, youth workers and secondary teachers. This project will likely help fill gaps in the present study by enabling a deeper dive into overlapping risk factors (cognitive and

social) between NSSI and ODI. The project will also enable further exploration of immediate triggers through an ecological momentary assessment (EMA) tool specifically gathering data pertaining to participants' emotions immediately prior and after engagement in SIBs (The SHInE Project, n.d.). Therefore, limitations in the present analysis may be overcome in the context of the wider research project and ultimately yield a more comprehensive and balanced understanding of SIBs within the AoNZ Context.

Reframing the issue

This and other studies have established that SI is complex and nuanced across all facets of these behaviours: from antecedents, to manifestation, to function, to efficacy, extending to overall outcomes. Current research tends to characterise behaviour by suicidal intent or outcomes and focus on individual attributes, risk factors, and triggers (Buelens et al., 2020; Garisch & Wilson, 2015; Klonsky et al., 2014; Nester et al., 2023; Whitlock et al., 2014). While this research is invaluable, the heavy emphasis on suicidal intent or individual attributes may preclude important systemic factors which contribute to SIB. Some of these systemic considerations will be addressed later in this chapter. Often, many of the behaviours explored in this study are steeped in stigma and erroneous assumptions which can further complicate understanding.

For example and contrary to popular perception, SIBs are primarily employed for intrapersonal reasons and predominantly conducted in private as depicted by this study. Furthermore, participants in this study overwhelmingly disagreed with the statement that "Self-injury is a female issue" and many behaviours such as wall- / object-punching, fighting, and other outwardly aggressive behaviours are excluded from a traditional conceptualisation of NSSI. Therefore, a holistic approach which engages multi-level, contextual, integrated analysis while trancending typical neoliberal / individualistic characterisations could expand knowledge surrounding self-injury. Accordingly, Community Psychology offers one such integrated and multifaceted lens with which to view SIBs more completely.

In general, Community Psychology (Comm Psych) employs value-laden guiding principles such as holistic wellbeing, social justice, and respect for diversity to guide conceptualisations of contemporary social issues. As a result, Comm Psych analyses issues on an ecological, multi-level, relational basis and frames them in terms of cultural diversity, social context, and existing social power structures. Solutions to issues are co-constructed with stakeholders according to values which incorporate a collaborative, strengths-based, and transformational focus while emphasising prevention and self-determination (Riemer et al., 2020). Importantly, the individual shame and blame that arises through neoliberalism can be minimised when social issues are framed as being the sum of their many parts. Further, solutions can be devised which address systems which perpetuate harm as opposed to merely highlighting individual inadequacies or deficiencies. Specifically, the benefits of using a Comm Psych approach to address the complex issue of self-injury will now be explored.

When framed under the vantage of Community Psychology, SIB can be contextualised within the social structures in which it is observed. One example of this is reframing the narrative around gender and its impact on SIB. Stereotypically, women are seen as uncontrollably emotional. Both SDI and ODI occur in conjunction with higher emotional states of stress, anxiety, and depression as evidenced by the current study. Further, this study depicts that significantly more women engage in SDI than do men. Without contextualising the experience of women in a patriarchal and misogynistic society where they experience more violence and less personal agency as a result of lesser education and employment opportunities (Moran et al., 2024), it is easy to rely on outdated and oppressive stereotypes to explain these statistics. However, by expanding the focus beyond the individual to include other influential elements, it is possible to observe the systemic factors which perpetuate higher stress, anxiety and depression for women in modern society as identified in the discussion of our first hypothesis above. Armed with this deeper understanding, it is then possible to devise solutions which help minimize these societal factors and generate truly transformational change. Co-design of these solution in

conjunction with lived experience can benefit all women instead of programmes that superficially ameliorate the distress of the few who can access individual assistance. An exploration of what specific changes might occur regarding programmes will be highlighted later in this chapter.

Likewise, there would be benefits to men when employing a Comm Psych approach to address their higher engagement in ODI. Stereotypically, it is expected and accepted when men lash out and punch objects (Curtis & Terry, 2023; Kimbrel et al., 2018). Frequently, that behaviour is often assessed as aggression rather than self-harm (Levant et al., 2011, as cited in Curtis & Terry, 2023). Under a Comm Psych lens, ODI can be understood as more than an outburst of anger. Recognising ODI as a means to harm oneself opens the door to explore other contributing factors beyond an individual's acute emotions. Some of these other contributing factors will be explored later in this chapter. Currently, men exhibiting significant ODI may end up in the judicial system which perpetuates harm by enforcing punitive rather that rehabilitative consequences for harmful behaviour. A Comm Psych perspective acknowledges how harm is perpetuated within current systems like the justice system and offers alternatives which minimise harm. As highlighted by this study and others (Tofthagen et al., 2022), more research is required to better understand how men engage in ODI and the functions that it serves for them. Ultimately, reframing some aggressive actions such as wall- / object-punching and fighting using the principles and values of Comm Psych could not only enrich the conceptualisation of SIB but also increase the efficacy of prevention and intervention efforts.

Empirical findings of The Lancet Commission on self-harm (Moran et al., 2024) and their alignment with Comm Psych values and principles constitute a progressive path forward to effectively address SIB prevention and intervention. First, the Commission confirms that SH consists of a vast array of underlying causes and contributing factors which are shaped by culture and society. This aligns with a multi-level systems approach of Comm Psych. Further, the Commission concurs that there is little known about the interaction

between individual factors and the wider social context. Importantly, the Commission highlighted three significant influences in SH engagement, namely: social determinants of health (SDH), poverty, and biopsychosocial factors. Much of the current research fails to consider macro influences such as socio-economic status and the significant role it can play in SIB engagement. The Lancet Commission specifically identifies that “self-harm often arises in the context of deficits in key social determinants of health which can lead to hopelessness and misery across societies” (Moran et al., 2024, p. 15). This premise is also supported by domestic AoNZ research which found that adolescent experiences of socioeconomic deprivation were associated with NSSI (Robinson et al., 2017). Comprehensively, social determinants of health such as education, employment, food, water, and housing security, alongside issues of and social inclusion and discrimination impact all people regardless of gender.

Secondly, the Lancet Commission declares “it is essential that research about self-harm engages meaningfully with lived experiences” (Moran et al., 2024, p. 21). Importantly, the Commission highlights positioning those with lived experience as authorities on SH knowledge. This positioning facilitates solutions which are co-designed and include all relevant stakeholders whilst enabling self-determination and agency. Again, these considerations align with Comm Psych values in that knowledge is collaboratively generated with self-determination and agency at the heart of interventions. The focal shift to the expertise of lived experience invites perspectives other than the dominant medical model which often pathologizes self-harm without addressing the underlying emotional antecedents (Moran et al., 2024). Another important implication of this focal shift is that is permits space to recognise how current clinical systems may perpetuate or even introduce additional harm. The Commission identified that substantial conflict exists between clinical and lived experience perspectives which requires attention to move forward collaboratively toward effective support for those who engage in SH. The challenge and implication of honouring all viewpoints will be explored in detail later in the programme discussion section of this

chapter. Initially, however, it is imperative to explore how the Commission findings and a Comm Psych perspective could help shape government policies around SIB.

Policy

A Community Psychology perspective may help avoid a narrow and ineffective conceptualisation of SIB and promote a more holistic, transformational approach to harm reduction through government policies. Research has found higher incidence of SI and violence for youth with low socio-economic status living in deprived neighbourhoods (Ejlskov et al., 2023). The study further proposed that protective factors were accentuated and risk factors were reduced by residence in affluent neighbourhoods. This finding is reinforced by domestic AoNZ research (Robinson et al., 2017). The Lancet Commission on self-harm proposed a number of recommendations for governments. In particular, the Commission highlights “a dearth of studies examining the economic cost-benefit of investment in education, employment programs/unemployment protection, and the general social safety net as a means of reducing self-harm” (Moran et al., 2024, p. 31). Government financial investment in social programmes represents a macro approach which could help dismantle systems which perpetuate SH engagement and illustrates the kind of upstream, transformational change championed by Community Psychology.

Programmes

An aim of this study and the wider SHInE research project is to amass local knowledge which may help inform more effective support for those who engage in SIB and aid in harm reduction. In keeping with a Comm Psych approach, the Commission highlights the importance of co-production of public services which honours an equal and reciprocal relationship amongst professionals, service users, family, and the wider community. This is particularly important as those who engage in SIB often do not prioritize prevention and treatment as goals. In fact, one study found that only 12% of participants who engaged in NSSI had the desire to stop the practice (Hooley et al., 2020). The Commission also found

“for some lived experience contributors, self-harm was viewed as a positive coping strategy or even a core part their identity, not something to be ‘treated away’” (Moran et al., 2024, p. 8). Similarly, NSSI has been identified as playing a significant anti-suicide intrapersonal function in a systematic review (Klonsky, 2007). Although it can be challenging to discern if the behaviour is employed to specifically avoid suicide or more fundamentally to alleviate acute distress (Curtis, 2017), it is important recognise that valid perspectives of lived experience have often been ignored and must be incorporated into any meaningful support programmes.

Fundamentally, this study and others (Curtis, 2017; Garofalo et al., 2016; Kimbrel et al., 2018; Klonsky et al., 2014; Nester et al., 2023; Nock, 2010; Robinson et al., 2019) have identified emotion regulation as a leading function of SIB. As discussed previously at length, it is apparent that there is a pattern of occurrences across many SH incidents which includes antecedent acute distress. As such, in conjunction with lived experience, programmes might focus on skill development for recognising and regulation of one’s emotions (whether they manifest as aggression towards self or other). In this way, the goal of any prevention or intervention effort is the positive acquisition of emotion recognition and regulation skills that could benefit the participant in all facets of the lives. Again, this shift in focus towards skill development as opposed to behaviour cessation is positive, strengths-based approach which aligns with the values and principles of Community Psychology. Additionally, this approach may be more palatable to those who see SIB as an effective coping mechanism. Presumably, as emotion recognition and regulation skills increase, other skills with unwanted negative consequences (such as scars and other injuries) may no longer be the preferred coping mechanism when acutely distressed.

Implication for the AoNZ Context

This research will add to the body of work conducted within the AoNZ context allowing us to define our own challenges and identify solutions more clearly. In particular, it may help to reframe the issue of SIB as an understandable reaction to intense,

overwhelming emotions rather than an indication of mental illness or interpersonal manipulation. Reframing the issue in this manner may help remove the shame and stigma associated with SIBs that keep the behaviours in private and prevent people from seeking assistance. Effective skill training could be compassionately offered to build a toolbox of positive coping mechanisms as alternatives to harmful ones. This shift could be particularly beneficial for those who engage in ODI who would be met with compassion and practical support as opposed to derision and punitive consequences. Actioning government policy recommendations made by The Lancet Commission on self-harm (Moran et al., 2024) within the AoNZ context would be a first positive step toward truly transformational harm reduction. Government policies which help minimise socio-economic inequities regarding employment, education, food, and housing would have a measurable impact on stress, anxiety and depression and correlate to meaningful reductions in SIB according to this study. Ultimately, adopting with a comprehensive, holistic approach which recognises how systems can perpetuate harm in the face of poverty and lacking social determinants of health will have a significant positive impact for youth in Aotearoa New Zealand.

Discussion Summary

This study has extended understanding of SIB in an AoNZ context with reinforcement of some previous domestic and international studies whilst also capturing unexpected findings which open the door for future research.

First, this study identifies statistically significant differences in SIB engagement according to gender. In particular, categorising behaviours according to how self-injury is achieved (either inward- or outward-directed) helps to facilitate identification and exploration of these gender distinctions. These emphatic gendered findings overshadow previous research that suggested little to no differences in NSSI according to gender. Second, this study affirms previous studies which demonstrate that emotional distress precedes SIB engagement. Interestingly, categorising behaviours as self-directed (SDI) or outward-directed (ODI) has also appreciably extended understanding by exposing the correlation

between ODI and the highest levels stress, anxiety and depression according to the DASS-21. Third, emotion regulation was found to be the predominant function for both SDI and ODI engagement which coincides with many previous studies. Viewing ODI behaviours such as include wall- / object-punching and fighting in a functional context of self-injury and emotion regulation could be extremely useful to inform future policies and programmes aimed at distress and harm reduction in Aotearoa New Zealand. Whilst the current study's findings generally mirrored NSSI engagement rates according to age, prevalence, and ethnicity as compared to previous studies, an interesting phenomenon emerged regarding ODI engagement according to age. The current study found ODI engagement remained high over the age of 25 contrary to that of SDI which tends to markedly decrease. Understanding the mechanisms which may help sustain ODI at older ages is yet another pertinent justification for further research surrounding this novel construct.

Chapter 6: Conclusion

The final chapter will bring the focus of this study full circle by reiterating the importance of research surrounding SIB, summarising the findings of this study and offering direction within the AoNZ context to better define our own challenges and solutions more clearly.

Summary

This research explores two detrimental issues confronting an increasing number of young people: non-suicidal self-injury (NSSI, also referred to as self-directed injury or SDI) and outward-directed injury (ODI). Although there is anecdotal evidence that people have engaged in self-injury for thousands of years (Nock, 2010), domestic research suggests that the prevalence of NSSI has increased dramatically (Fitzgerald & Curtis, 2017; Garisch & Wilson, 2015; Robinson & Wilson, 2020). Recent research indicates that NSSI is most common in adolescents and young adults and is associated with states of acute emotional and psychological distress (Hasking et al., 2017; McEvoy et al., 2023; Richmond-Rakerd et al., 2019; Robinson et al., 2019; Spaan et al., 2022). Furthermore, many studies have identified a significant correlation between NSSI and an increased risk of suicide (Aggarwal et al., 2017; Curtis, 2017; Garisch et al., 2020; Hooley et al., 2020; Kimbrel et al., 2018; Klonsky et al., 2014; Lucena et al., 2022; Moran et al., 2024; Nock, 2010; Richmond-Rakerd et al., 2019; Spaan et al., 2022; Steinhoff et al., 2023; Whitlock et al., 2011) which underscores the importance of better understanding SIBs. Fundamentally, the purpose of this study was to examine how SDI and ODI may be ways of dealing with the same issues, especially managing negative emotions.

Summarily, this study has introduced the novel term of ODI and differentiated it from traditional NSSI according to specific behaviours identified as being directed inward at oneself (SDI) or outward towards other people or objects (ODI). The common intention of either class of behaviours is to ultimately cause injury to oneself. Engagement in SDI and

ODI was investigated in the context of three hypotheses relating to gender, emotional distress, and functionality. The present study has reinforced previous research which shows that gender plays a significant role in SIB engagement. Namely, this study found females had higher engagement in SDI; whereas, males reported significantly more ODI engagement. SDI and ODI were also found to be moderately positively correlated in relation to gender. This result illustrates that an increase in SDI scores coincides with an increase in ODI scores. Overall, this positive, statistically significant, moderate correlation confirms similarities between the two constructs. Interestingly, this study found that females were much more likely than men to report they Banged or Punched Objects. This finding is contrary to conventional expectations and reinforces the proposal that young women who exhibit externalised aggression (ODI) as a form of NSSI are often under-recognised (Curtis, 2018). Ultimately, this study reinforces that gender does play an important role in SDI and ODI engagement in an AoNZ context, and sometimes in unexpected ways.

Concurrently, this study depicts that acute emotional distress often precipitates both SDI and ODI. In particular, negative affect, as measured by the three DASS-21 subscales of stress, anxiety and depression, appears to have an additive effect on SIB engagement. When conceptualised on a continuum, the absence of SIBs coincides with the least distress whilst distress is higher with SDI and even higher still in the presence of ODI. Further, the data identifies that those who participate in dual engagement (both SDI and ODI) were the most stressed, anxious, and depressed of all participants (see Figure 1 and Table 13). As ODI includes other people or property by definition, it follows that engagement in ODI also represents the most harm through subsequent collateral damage. Therefore, the findings of this study reinforce the importance of further research into the novel construct of ODI to affect the greatest impact upon distress and harm reduction.

Furthermore, this study has identified some other similarities across SDI and ODI. For example, both were most prevalent in adolescents and young adults with over 74% of SDI engagement and over 65% of ODI engagement occurring among those aged 25 or

younger. Likewise, ethnicity was not found to be statistically significant for engagement in either SDI or ODI. Importantly, this study established that the predominant function of both SDI and ODI is emotion regulation. Specifically, SDI was strongly positively correlated with four out of the five NSSI-AT function groups (Affect Low Pressure, Affect High Pressure, Self-Retribution and Deterrence, and Sensation Seeking); whereas, ODI showed weaker correlations overall with the strongest being a small positive with Affect High Pressure. Overall, this study confirms some significant similarities of SDI and ODI. Ultimately, the construct of ODI appears to offer some statistically significant insights into self-injurious behaviours. Therefore, the findings of this study provide preliminary support for further research into the novel construct of ODI to affect the greatest impact upon distress and harm reduction.

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Appendices

Appendix A: Integrated theoretical model of the development and maintenance of self-injury.

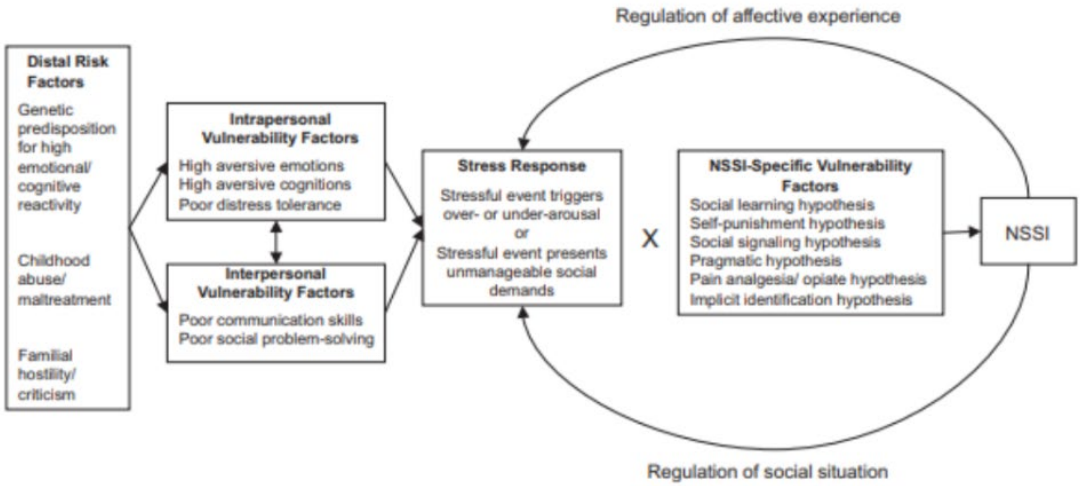


Figure 2

Integrated theoretical model of the development and maintenance of self-injury. Copyright © 2009 by Wiley-Blackwell Publishing. Reproduced with permission. Source: Nock MK. 2009b. Why do people hurt themselves? New insights into the nature and function of self-injury. *Curr. Dir. Psychol. Sci.* 18:78–83

Appendix B: Full SHInE Survey

IPRP Injurious Behaviour Survey 2023

Start of Block: Welcome

Q1 **Emotional Well-being Survey: The SHInE Project** Tēnā koe, Talofa Lava, Bula Vinaka, Malo e Lelei, Fakalofa Lahi Atu, Nihao, Namaste, Chao, Kia orana, as-salām alaikum, warm greetings to you. Thank you for your interest in our survey. This research has been approved by the University of Waikato Human Research Ethics Committee (Health). Email: **humanethics@waikato.ac.nz.** This survey will help shed light on mental health issues many of us face and help us to better understand how mental health services can be improved. You will be asked about a variety of mental health issues such as: peer and family relationships, depression and anxiety, self-injury and getting help for problems. The information gathered will be analysed (anonymously) and written up for publication in academic journals, conference presentations and presentations to interested people and groups, such as health professionals. This may result in a major advancement in the understandings of significant social and health issues, with longer term potential for new interventions and treatments. We will also be conducting other research, such as interviews. To find out more, please follow this link to our website (which will open in a new window - allowing you to continue with the survey here). If you have any further questions about the nature of this research please email the research team: shine.project@waikato.ac.nz or the research leader Dr Cate Curtis: cate.curtis@waikato.ac.nz **Before you continue please be aware**: This survey addresses a number of mental health topics that may be difficult to think about. Please keep in mind you may choose to not answer a question or questions and may stop your participation at any time by simply closing your web browser. In addition, attached to the invitation email, at the beginning, and at the completion of your participation in this online survey, you will find a list of names and contact details for agencies who can provide you with help and information about any mental health concerns you may have. **Confidentiality:** It is up to you whether you give us any identifying information; however, if you would like to receive a research summary upon completion of analysis you will need to provide some identifying information (such as your first name and email or phone number). If you prefer not to, you are still very welcome to complete the survey. Please note that it will not be possible to withdraw your information later, because it will not be possible to identify it. **Research findings:** These will be made available if you indicate you would like a summary. To receive a research summary directly, an email address must be provided. Please note that all contact details will be collected and stored separately from your survey answers. Your survey answers will remain totally anonymous. Alternatively, findings, as they become available, will also be accessible on our website. It takes about 20 minutes on average to complete the survey. Depending on your responses, any questions that aren't relevant to you will be skipped.

By clicking the arrow below, which will take you to the next screen, you are indicating that you have read the information above and are ready to begin.

End of Block: Welcome

Start of Block: International Student

Q2 Do you normally live in New Zealand?

- Yes (1)
- No (2)

End of Block: International Student

Start of Block: Resource Sheet

Q3
Resource Sheet The above link will lead you to a resource which contains a range of local and national services available to help individuals experiencing mental health issues. This resource includes links to websites as well as numbers to phone lines and text lines.

The survey will remain open in the original tab, should you wish to return to it.

End of Block: Resource Sheet

Start of Block: International thank you

Q4 Thank you very much for your interest in this survey! Unfortunately, this survey is for people who normally live in New Zealand only. Thanks again for your interest and understanding.

End of Block: International thank you

Start of Block: All - 1st Demographics

Q5 We'll start with some basic questions about you.
Firstly, what is your age?

- ○ 18 and under (1)
- ○ 19-20 (2)
- ○ 21-25 (3)
- ○ 26-30 (4)
- ○ 31-35 (11)
- ○ 36-40 (12)
- ○ 41-50 (13)
- ○ 51 and over (14)

Q6 What is your gender?

- ○ Male (1)
- ○ Female (2)
- ○ Non-binary (3)
- ○ Or, please specify (4) _____

Q7 How would you describe your ethnicity? (Please click all that apply)

- [ ] NZ-born European / Pākehā (1)
- [ ] NZ Māori (2)
- [ ] Pacific Island (3)
- [ ] European (not born in NZ) (4)
- [ ] Asian (5)
- [ ] Indian (6)
- [ ] Americas (7)
- [ ] African (8)
- [ ] Middle Eastern (9)
- [ ] Other (Please specify) (10) _____

Page Break

Q8 What is your highest **completed** qualification?

- ○ NCEA Level 1 or School Certificate (1)
- ○ NCEA Level 2 or University Entrance (2)
- ○ NCEA Level 3 (11)
- ○ Bachelors degree (3)
- ○ One year of postgraduate study, e.g., PG Dip, PG Cert, Honours, first year of 180/240 point Masters (4)
- ○ Further postgraduate study e.g., continuing 180/240 point Masters, 120 point Masters (5)
- ○ PhD or other higher degree (6)
- ○ Other trade qualification e.g. electrician, hair-dresser (8)
- ○ Another qualification (9)
- ○ No currently completed qualifications (10)

Skip To: Q9 If Q8 = Other trade qualification e.g. electrician, hair-dresser

Q9 Where do you currently live?

- ○ On campus hall of residence (1)
- ○ Living alone (3)
- ○ Flatting/sharing/boarding (4)
- ○ With own partner/family (6)
- ○ With parents or other family (7)
- ○ Other (please specify) (8) _____

Q10 Do you live...

- ○ in a city (1)
- ○ in a town (2)
- ○ in the country (3)

Page Break

Q11 What is your current relationship status (choose which most closely fits to you) ?

- ○ I am single (1)
- ○ I am involved in uncommitted dating (2)
- ○ I am in a long-term, committed relationship/married (4)
- ○ I am separated/divorced/widowed (5)

Skip To: Q13 If Q11 = I am single
Skip To: Q13 If Q11 = I am involved in uncommitted dating
Skip To: Q13 If Q11 = I am separated/divorced/widowed

Q12 How would you describe your relationship?

- ○ Very strong (1)
- ○ Strong (2)
- ○ Struggling a little (3)
- ○ Struggling a lot (4)

Q13 What is your sexual orientation? (Please click all that apply)

- ☐ Straight (heterosexual) (1)
- ☐ Gay/ Lesbian (homosexual) (2)
- ☐ Bisexual (3)
- ☐ Questioning (4)
- ☐ Fluid (6)
- ☐ Or, (please specify) (5) _____

Page Break

Q14 Thanks for answering that initial batch of questions. We'd now like to move on to questions about dealing with problems.
How often are the following true for you?

	Never true (1)	Rarely true (2)	Sometimes true (3)	Often true (4)	I do not know (5)
I can rely on my family/friends for help if I have a serious problem (1)	○	○	○	○	○
I can open up to my family/friends if I need to talk about my worries (2)	○	○	○	○	○
My family/friends often make too many demands on me (3)	○	○	○	○	○
When I have a problem or worry, I have at least one family member or friends I feel comfortable talking with (4)	○	○	○	○	○

Page Break

Q15 During the past 30 days, about how often did you feel...

	None of the time (1)	A little of the time (2)	Some of the time (3)	Most of the time (4)
Nervous (1)	○	○	○	○
Hopeless (2)	○	○	○	○
Satisfied with your life (3)	○	○	○	○
So depressed that nothing could cheer you up (4)	○	○	○	○
That everything was an effort (5)	○	○	○	○
Worthless (6)	○	○	○	○
Restless or fidgety (7)	○	○	○	○
Happy with yourself (8)	○	○	○	○

Page Break

Q16 This set of questions asks about your **past** relationships with family members or legal guardians. Generally speaking, how true are the following traits for the family members with whom you **spent most of your time** while you were growing up?

	Very true (1)	Somewhat true (2)	Unsure (3)	Somewhat untrue (4)	Very untrue (5)	Does not apply (6)
Even though it was hard sometimes, I discussed emotional issues with my family (1)	○	○	○	○	○	○
There was usually someone in my family who noticed when I was upset (2)	○	○	○	○	○	○
Most members of my family shared their emotions-good and bad (3)	○	○	○	○	○	○
My family was NOT comfortable discussing emotional issues (4)	○	○	○	○	○	○

Page Break

Q17 The following statements describe different ways people feel. Please rate how true each of these is for you.

	Very true (1)	Somewhat true (2)	Unsure (3)	Somewhat untrue (4)	Very untrue (5)	Does not apply (6)
I am usually satisfied with my accomplishments (1)	○	○	○	○	○	○
People have to be excellent at almost everything to be successful these days (2)	○	○	○	○	○	○
I am very hopeful (3)	○	○	○	○	○	○
I believe that I have a good life (4)	○	○	○	○	○	○
I do not enjoy many things in life (5)	○	○	○	○	○	○
Even though things may be tough at times, I think life is worth living (6)	○	○	○	○	○	○

Page Break

Q18 The next few questions relate to behaviours around food and drink.

Have you ever repeatedly... (Please click all that apply)

- [ ] Severely restricted your eating (1)
- [ ] Binged or purged (2)
- [ ] Over-exercised yourself to lose or manage your weight (3)
- [ ] Used laxatives, to lose or manage your weight (4)
- [ ] None of the above (5)

Skip To: Q20 If Q18 = None of the above

Q19 How old were you when you LAST engaged in any of the behaviours listed in the previous questions?

- ○ 10 or younger (1)
- ○ 11-15 (2)
- ○ 16-20 (3)
- ○ 21-25 (4)
- ○ 26-30 (5)
- ○ 31-35 (6)
- ○ 36-40 (7)
- ○ 41-50 (8)
- ○ 51 or older (9)

Page Break

Q20 For the next few questions, one standard drink= one 330ml bottle of beer, one 100ml glass of wine, one shot of spirits.

On average, how many drinks do you consume when you socialise in a setting with alcohol?

- ○ None (1)
- ○ 1-2 (2)
- ○ 3-4 (3)
- ○ 5-6 (4)
- ○ 7-8 (5)
- ○ 9-10 (6)
- ○ 11+ (7)

Q21 How many days did you drink alcohol in the last 30 days?

- ○ None (1)
- ○ 1-2 (2)
- ○ 3-5 (3)
- ○ 6-10 (4)
- ○ 11-15 (5)
- ○ 16-20 (6)
- ○ 21+ (7)

Skip To: Q23 If Q21 = None

Q22 Think of the occasion on which you drank the most in the past 2 weeks. How many standard drinks did you have?

- ○ None - didn't drink in the last two weeks (7)
- ○ 1-2 (1)
- ○ 3-4 (2)
- ○ 5-6 (3)
- ○ 7-8 (4)
- ○ 9-10 (5)
- ○ 11+ (6)

Q23 Have you ever experienced any of the following as a result of your alcohol or other drug use **during the past year**? (Please click all the apply).

- ☐ Had memory loss (1)
- ☐ Been hurt or injured (2)
- ☐ Missed a class (3)
- ☐ Performed poorly on a test or important project (4)
- ☐ Tried unsuccessfully to cut down or stop your use (5)
- ☐ Noticed that it took more alcohol or other drug than it once did to get the desired effect (6)
- ☐ Felt angry or annoyed when someone commented on your use (7)
- ☐ I have not experienced any of the above (8)
- ☐ I did not drink alcohol or use drugs in the last year (9)

Page Break

Q24 Have you ever been deliberately hit or otherwise injured by someone you cared about or were involved with, including family members, in a romantic relationship, an acquaintance, or a friend? (This **excludes** 'play-fighting' or other activity that you were happy to do.)

- ○ Yes (1)
- ○ No (2)
- ○ Not sure (3)

Skip To: Q27 If Q24 = No
Skip To: Q27 If Q24 = Not sure

Q25 How old were you when you were **first** in a physically abusive relationship?

- ○ 10 or younger (1)
- ○ 11-15 (2)
- ○ 16-20 (3)
- ○ 21-25 (4)
- ○ 26-30 (5)
- ○ 31-35 (6)
- ○ 36-40 (7)
- ○ 41-50 (8)
- ○ 51 older (9)

Q26 Who was this relationship with? (Please click all that apply).

- [ ] Parent (1)
- [ ] Son / Daughter (2)
- [ ] Sibling (3)
- [ ] Other family member (4)
- [ ] Boyfriend / Girlfriend / Partner / Spouse (5)
- [ ] Friend (6)
- [ ] Acquaintance (7)
- [ ] Work Colleague (Boss or Co-worker) (8)

Page Break

Q27 Have you ever experienced unwanted sexual touching or intercourse, or been forced to engage in unwanted sexual activity because: (Please click all that apply)

- ☐ You were a child and could not stop it (1)
- ☐ You felt pressured by continual arguments (2)
- ☐ A person used some degree of physical force (twisting your arm, hold you down, etc.) (3)
- ☐ A person threatened to use physical force (twisting your arm, holding you down, etc.) if you did not cooperate (4)
- ☐ The other person was in a position of authority or power over you (5)
- ☐ You were under the influence of alcohol or other drugs (6)
- ☐ Other (please specify) (7) _____
- ☐ I have NOT experienced unwanted sexual touching or intercourse, or been forced to engage in unwanted sexual activity. (8)

Skip To: Q29 If Q27 = I have NOT experienced unwanted sexual touching or intercourse, or been forced to engage in unwanted sexual activity.

Q28 How old were you when the above **first** happened?

- ○ 10 or younger (1)
- ○ 11-15 (2)
- ○ 16-20 (3)
- ○ 21-25 (4)
- ○ 26-30 (5)
- ○ 31-35 (6)
- ○ 36-40 (7)
- ○ 41-50 (8)
- ○ 51 or older (9)

Q29 Have you ever experienced any of the following life difficulties? (Please click all that apply)

- ☐ Death of a parent (1)
- ☐ Death of a sibling or other family member (2)
- ☐ Parental divorce or separation (3)
- ☐ Direct experience with a potentially traumatic event)e.g., accident, war, natural disaster) (4)
- ☐ Witnessed a potentially traumatic event (e.g., accident or death) (5)
- ☐ Attempted or completed suicide of a family member (6)
- ☐ Attempted or completed suicide of a friend or acquaintance (7)
- ☐ None of the above (8)
- ☐ Other (please specify) (9) _____

End of Block: All - 1st Demographics

Start of Block: DASS21

Q30 Please read each statement and tick a number: 0, 1, 2 or 3, which 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.

The rating scale is as follows:
0 Did not apply to me at all
1 Applied to me to some degree, or some of the time
2 Applied to me to a considerable degree, or a good part of time
3 Applied to me very much, or most of the time

Q31 1 I found it hard to wind down

- 0 Did not apply to me at all (1)
- 1 Applied to me to some degree, or some of the time (2)
- 2 Applied to me to a considerable degree, or a good part of time (3)
- 3 Applied to me very much, or most of the time (4)

Q32 2 I was aware of the dryness in my mouth

- 0 Did not apply to me at all (1)
- 1 Applied to me to some degree, or some of the time (2)
- 2 Applied to me to a considerable degree, or a good part of time (3)
- 3 Applied to me very much, or most of the time (4)

Q33 3 I couldn't seem to experience any positive feeling at all

- 0 Did not apply to me at all (1)
- 1 Applied to me to some degree, or some of the time (2)
- 2 Applied to me to a considerable degree, or a good part of time (3)
- 3 Applied to me very much, or most of the time (4)

Q34 4 I experienced breathing difficulty (e.g, excessively rapid breathing, breathlessness in the absence of physical exertion)

- 0 Did not apply to me at all (1)
- 1 Applied to me to some degree, or some of the time (2)
- 2 Applied to me to a considerable degree, or a good part of time (3)
- 3 Applied to me very much, or most of the time (4)

Q35 5 I found it difficult to work up the initiative to do things

- 0 Did not apply to me at all (1)
- 1 Applied to me to some degree, or some of the time (2)
- 2 Applied to me to a considerable degree, or a good part of time (3)
- 3 Applied to me very much, or most of the time (4)

Q36 6 I tended to over-react to situations

- 0 Did not apply to me at all (1)
- 1 Applied to me to some degree, or some of the time (2)
- 2 Applied to me to a considerable degree, or a good part of time (3)
- 3 Applied to me very much, or most of the time (4)

Q37 7 I experienced trembling (e.g, in the hands)

- 0 Did not apply to me at all (1)
- 1 Applied to me to some degree, or some of the time (2)
- 2 Applied to me to a considerable degree, or a good part of time (3)
- 3 Applied to me very much, or most of the time (4)

Q38 8 I felt that I was using a lot of nervous energy

- 0 Did not apply to me at all (1)
- 1 Applied to me to some degree, or some of the time (2)
- 2 Applied to me to a considerable degree, or a good part of time (3)
- 3 Applied to me very much, or most of the time (4)

Q39 9 I was worried about situations in which I might panic and make a fool of myself

- 0 Did not apply to me at all (1)
- 1 Applied to me to some degree, or some of the time (2)
- 2 Applied to me to a considerable degree, or a good part of time (3)
- 3 Applied to me very much, or most of the time (4)

Q40 10 I felt that I had nothing to look forward to

- 0 Did not apply to me at all (1)
- 1 Applied to me to some degree, or some of the time (2)
- 2 Applied to me to a considerable degree, or a good part of time (3)
- 3 Applied to me very much, or most of the time (4)

Q41 11 I found myself getting agitated

- 0 Did not apply to me at all (1)
- 1 Applied to me to some degree, or some of the time (2)
- 2 Applied to me to a considerable degree, or a good part of time (3)
- 3 Applied to me very much, or most of the time (4)

Q42 12 I found it difficult to relax

- 0 Did not apply to me at all (1)
- 1 Applied to me to some degree, or some of the time (2)
- 2 Applied to me to a considerable degree, or a good part of time (3)
- 3 Applied to me very much, or most of the time (4)

Q43 13 I felt down-hearted and blue

- 0 Did not apply to me at all (1)
- 1 Applied to me to some degree, or some of the time (2)
- 2 Applied to me to a considerable degree, or a good part of time (3)
- 3 Applied to me very much, or most of the time (4)

Q44 14 I was intolerant of anything that kept me from getting on with what I was doing

- 0 Did not apply to me at all (1)
- 1 Applied to me to some degree, or some of the time (2)
- 2 Applied to me to a considerable degree, or a good part of time (3)
- 3 Applied to me very much, or most of the time (4)

Q45 15 I felt I was close to panic

- 0 Did not apply to me at all (1)
- 1 Applied to me to some degree, or some of the time (2)
- 2 Applied to me to a considerable degree, or a good part of time (3)
- 3 Applied to me very much, or most of the time (4)

Q46 16 I was unable to become enthusiastic about anything

- 0 Did not apply to me at all (1)
- 1 Applied to me to some degree, or some of the time (2)
- 2 Applied to me to a considerable degree, or a good part of time (3)
- 3 Applied to me very much, or most of the time (4)

Q47 17 I felt I wasn't worth much as a person

- 0 Did not apply to me at all (1)
- 1 Applied to me to some degree, or some of the time (2)
- 2 Applied to me to a considerable degree, or a good part of time (3)
- 3 Applied to me very much, or most of the time (4)

Q48 18 I felt that I was rather touchy

- 0 Did not apply to me at all (1)
- 1 Applied to me to some degree, or some of the time (2)
- 2 Applied to me to a considerable degree, or a good part of time (3)
- 3 Applied to me very much, or most of the time (4)

Q49 19 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)

- 0 Did not apply to me at all (1)
- 1 Applied to me to some degree, or some of the time (2)
- 2 Applied to me to a considerable degree, or a good part of time (3)
- 3 Applied to me very much, or most of the time (4)

Q50 20 I felt scared without any good reason

- 0 Did not apply to me at all (1)
- 1 Applied to me to some degree, or some of the time (2)
- 2 Applied to me to a considerable degree, or a good part of time (3)
- 3 Applied to me very much, or most of the time (4)

Q51 21 I felt that life was meaningless

- 0 Did not apply to me at all (1)
- 1 Applied to me to some degree, or some of the time (2)
- 2 Applied to me to a considerable degree, or a good part of time (3)
- 3 Applied to me very much, or most of the time (4)

End of Block: DASS21

Start of Block: Emotional Relationship Abuse - ALL

Q52 Have you ever been in a relationship that was emotionally abusive?

- ○ Yes (1)
- ○ No (2)
- ○ Not sure (3)

Skip To: End of Block If Q52 = No
Skip To: End of Block If Q52 = Not sure

Q53 Who was this relationship with? (Please click any that apply).

- ☐ Parent (1)
- ☐ Son / Daughter (2)
- ☐ Sibling (3)
- ☐ Other family member (4)
- ☐ Boyfriend / Girlfriend / Partner / Spouse (5)
- ☐ Friend (6)
- ☐ Acquaintance (7)
- ☐ Work colleague (Boss or Co-worker) (8)

Q54 How old were you when you were **first** in an emotionally abusive relationship?

- ○ 10 or younger (1)
- ○ 11-15 (2)
- ○ 16-20 (3)
- ○ 21-25 (4)
- ○ 26-30 (5)
- ○ 31-35 (6)
- ○ 36-40 (7)
- ○ 41-50 (8)
- ○ 51 or Older (9)

End of Block: Emotional Relationship Abuse - ALL

Start of Block: Self Injury - First Qs ALL participants asked

Q55 Self Injury

The following questions ask about your experiences with intentionally hurting yourself. We know that this can be a difficult issue to talk about. Please note that there are contact details at the end of the survey which you can use if you feel like you want to talk with someone. The information you and others provide about this topic will be used to help others who intentionally hurt themselves. Thank you in advance for your time and honesty.

Q56 Please rate how much you agree with the following statements.

	Agree (1)	Partly Agree (2)	Partly disagree (3)	Disagree (4)
If I were experiencing a difficult emotional crisis at this point in my life, I would be confident that I could find relief in counselling (therapy). (1)	○	○	○	○
There is something admirable in the attitude of a person who is willing to cope with his or her conflicts and fears without resorting to professional help. (2)	○	○	○	○
I would want to get psychological help if I were worried or upset for a long period of time. (3)	○	○	○	○
A person should work out his or her own problems; getting psychological counselling would be a last resort. (4)	○	○	○	○
Personal and emotional troubles, like many things, tend to work out by themselves.	○	○	○	○

(5)

Page Break

Q57 In this question self-injury is defined as: a deliberate act to harm one's own body which is done **without suicidal intent**. You might know this as 'self-harm'.

To what extent do you agree with each of the following statements.

	Strongly Agree (1)	Agree (2)	Neutral (3)	Disagree (4)	Strongly Disagree (5)	Don't Know (6)
Self-injury is a female issue (1)	○	○	○	○	○	○
All people who self-injure are suicidal (2)	○	○	○	○	○	○
Only adolescents self-injure (3)	○	○	○	○	○	○
People self-injure to release emotional pain (4)	○	○	○	○	○	○
People who self-injure are mentally ill (5)	○	○	○	○	○	○
People who self-injure have often been abused (6)	○	○	○	○	○	○
People who self-injure are seeking attention (7)	○	○	○	○	○	○
People self-injure to deal with difficult relationships (8)	○	○	○	○	○	○
Talking about self-injuring makes me feel uncomfortable	○	○	○	○	○	○

(9)						
I don't know why people self-injure (10)	○	○	○	○	○	○
Self-injuring is more common when people do not have money or financial resources (11)	○	○	○	○	○	○
People who self-injure often have an eating disorder (12)	○	○	○	○	○	○
I find the idea of self-injury horrifying (13)	○	○	○	○	○	○
Those who self-injure are trying to manipulate others with their behaviour (14)	○	○	○	○	○	○
Self-injuring, as a behaviour is on the increase (15)	○	○	○	○	○	○
Self-injuring might make some suicidal people feel better (16)	○	○	○	○	○	○
Self-injury is quite common especially among certain groups (17)	○	○	○	○	○	○

Page Break

Q58 How many people do you personally know of or strongly suspect of intentionally hurting themselves, e.g., cutting, burning, scratching, break their own bones?

- ○ None (1)
- ○ 1 (2)
- ○ 2 (3)
- ○ 3 (4)
- ○ 4 (5)
- ○ 5 or more (6)

Page Break

Q59 Have you ever done any of the following **with the purpose of intentionally hurting yourself?** (Please click all that apply).

- ☐ Severely scratched or pinched with fingernails or other objects to the point that bleeding occurs or marks remain on the skin (1)
- ☐ Cut wrists, arms, legs, torso or other areas of the body (2)
- ☐ Dropped acid onto skin (3)
- ☐ Created salt and ice burns on the skin (4)
- ☐ Carved words or symbols into the skin (5)
- ☐ Ingested a caustic substance(s) or sharp object(s) (e.g., bleach, other cleaning substances, pins etc) (6)
- ☐ Bitten yourself to the point that bleeding occurs or marks remain on the skin (7)
- ☐ Tried to break my own bone(s) (8)
- ☐ Broke my own bone(s) (9)
- ☐ Ripped or torn skin (10)
- ☐ Performed self-asphyxiation/strangulation (with the intention of hurting yourself) (11)
- ☐ I have never intentionally hurt myself in these ways (12)

Q60 Have you ever done any of the following **with the purpose of intentionally hurting yourself?** (Please click all that apply).

- ☐ Burned wrists, arms, legs, torso or other areas of the body (1)
- ☐ Rubbed glass into skin or stuck sharp objects such as needles, pins, and staples, into or underneath the skin (not included tattooing, body piercing, or needles used for medication use. (2)
- ☐ Banged or punching objects to the point of bruising or bleeding (3)
- ☐ Punched or banged oneself to the point of bruising or bleeding (4)
- ☐ Intentionally preventing wounds from healing (5)
- ☐ Mutilated genitals or rectum (6)
- ☐ Engaged in fighting or other aggressive activities with the intention of getting hurt (7)
- ☐ Pulled out hair, eyelashes, or eyebrows (with the intention of hurting oneself) (8)
- ☐ I have never intentionally hurt myself in these ways (9)

Q61 Have you ever done any of the following as a way or injuring yourself:

- ☐ Picked a fight with someone (1)
- ☐ Annoyed or verbally abused someone, with the expectation that they might physically hurt you (5)
- ☐ Physically assaulted someone (6)
- ☐ I have never done any of these things (7)

Display This Question:

If Q61 = Picked a fight with someone

Or Q61 = Annoyed or verbally abused someone, with the expectation that they might physically hurt you

Or Q61 = Physically assaulted someone

Q62 A key reason why people do these things is to manage emotions. When you've done this has it been because you wanted to (Please click all that apply.):

- ☐ Reduce sadness/depression (1)
- ☐ Reduce anxiety/worry (8)
- ☐ Reduce frustration (9)
- ☐ Reduce anger (10)
- ☐ Reduce suicidal feelings (11)
- ☐ Have fun/for enjoyment (rather than to reduce unpleasant emotions) (12)
- ☐ Be punished (14)
- ☐ Change some other emotion. If so, please briefly tell us a little more below (13) _____

Q63 Are there any other ways that you have physically hurt or mutilated your body with the purpose of intentionally hurting yourself?

- ○ Yes (Please specify) (1) _____
- ○ No (2)

End of Block: Self Injury - First Qs ALL participants asked

Start of Block: Suicide

Q64 Have you ever seriously attempted or considered suicide?

- ○ Yes (1)
- ○ No (2)

End of Block: Suicide

Start of Block: Suicide yes - All

Q65 Which of the following best describes your (most recent) experience?

- ○ I thought seriously about it (1)
- ○ I had a general plan but DID NOT carry it out (e.g., a time, a place etc. were identified (2)
- ○ I wrote a suicide note but DID NOT leave it were it could be found (3)
- ○ I wrote a suicide note and DID leave it were it could be found (4)
- ○ I had a method but DID NOT carry it out (5)
- ○ I made a serious attempt but NO MEDICAL INTERVENTION occurred (6)
- ○ I made a serious attempt that RECEIVED MEDICAL INTERVENTION (7)
- ○ Although I considered suicide I was not serious about it (8)

Skip To: Q70 If Q65 = I thought seriously about it

Skip To: Q70 If Q65 = I had a general plan but DID NOT carry it out (e.g., a time, a place etc. were identified

Skip To: Q70 If Q65 = I wrote a suicide note but DID NOT leave it were it could be found

Skip To: Q70 If Q65 = I wrote a suicide note and DID leave it were it could be found

Skip To: Q70 If Q65 = I had a method but DID NOT carry it out

Skip To: Q69 If Q65 = I made a serious attempt that RECEIVED MEDICAL INTERVENTION

Skip To: Q70 If Q65 = Although I considered suicide I was not serious about it

Q66 How many times have you made a serious attempt in which no medical attention occurred?

- ○ 1 (1)
- ○ 2 (2)
- ○ 3 (3)
- ○ 4 (4)
- ○ 5 (5)
- ○ 6+ (6)
- ○ None - medical attention always occurred. (7)

Q67 Regarding your attempt(s) that **did not** receive medical attention: which of these statements are true for you? (Please click all that apply).

- ☐ I made a serious attempt to kill myself and it was only luck that I did not succeed (1)
- ☐ I made a serious attempt to kill myself but didn't realise that the method I chose might not be lethal (4)
- ☐ I tried to kill myself but knew the method was not fool-proof (2)
- ☐ My attempt was a cry for help; I did not intend to die (3)
- ☐ I was unsure whether I truly wanted to die (5)
- ☐ It began as a serious attempt, but I changed my mind (6)

Q68 How many times have you made a serious attempt in which medical intervention occurred?

- ○ 1 (1)
- ○ 2 (2)
- ○ 3 (3)
- ○ 4 (4)
- ○ 5 (5)
- ○ 6+ (6)
- ○ None - medical intervention always occurred. (7)

Q69 Regarding your attempt(s) that **did** receive medical attention: which of these statements are true to you? (Please click all that apply).

- ☐ I made a serious attempt to kill myself and it was only luck that I did not succeed (1)
- ☐ I made a serious attempt to kill myself but didn't realise that the method I chose might not be lethal (4)
- ☐ I tried to kill myself but knew the method was not fool-proof (2)
- ☐ My attempt was a cry for help; I did not intend to die (3)
- ☐ I was unsure whether I truly intended to die (5)
- ☐ It began as a serious attempt, but I changed my mind (6)

Page Break

Q70 What age were you the **first** time you considered or attempted suicide?

- ○ 10 or younger (1)
- ○ 11-15 (2)
- ○ 16-20 (3)
- ○ 21-25 (4)
- ○ 26-30 (5)
- ○ 31-35 (6)
- ○ 36-40 (7)
- ○ 41-50 (8)
- ○ 50+ (9)

Q71 What age were you the **last** time you considered or attempted suicide?

- ○ 10 or younger (1)
- ○ 11-15 (2)
- ○ 16-20 (3)
- ○ 21-25 (4)
- ○ 26-30 (5)
- ○ 31-35 (6)
- ○ 36-40 (7)
- ○ 41-50 (8)
- ○ 50+ (9)

Page Break

Q72 During the most recent time in which you considered or attempted suicide, who did you tell and/or seek advice from about how you were feeling? (Please click all that apply).

- ☐ Friend(s) (1)
- ☐ Room-mate/ flat-mate (2)
- ☐ Sports coach or trainer (7)
- ☐ Spiritual advisor / religious clergy (8)
- ☐ Parent(s) Sibling(s) (12)
- ☐ Brother or sister (18)
- ☐ Other relative(s) (13)
- ☐ Girl/Boy friend or Spouse/Partner (14)
- ☐ Virtual friend (i.e never met other than online) (15)
- ☐ Family doctor / GP (16)
- ☐ Teacher (19)
- ☐ Therapist/ counsellor (17)
- ☐ University staff member e.g. tutor or lecturer (10)
- ☐ I told no one (20)
- ☐ Other (please specify) (21) _____

Q73 If you received help/advice was it helpful?

- ○ Yes (1)
- ○ No (2)
- ○ Somewhat helpful (3)

Page Break

Q74 Who do you feel comfortable getting help from when you feel anxious, sad, or depressed? (Please click any that apply).

- ☐ Friend(s) (1)
- ☐ Room-mate/ flat-mate (2)
- ☐ University staff member (tutor or lecturer) (6)
- ☐ Sports coach or trainer (7)
- ☐ Spiritual advisor / religious clergy (8)
- ☐ GP/Doctor (9)
- ☐ Therapist/ counsellor (10)
- ☐ Brother or sister (11)
- ☐ Parent(s) Sibling(s) (12)
- ☐ Other relative(s) (13)
- ☐ Girl/Boy friend or Spouse/Partner (14)
- ☐ Virtual friend (i.e never met other than online) (15)
- ☐ Teacher, counsellor, or other staff member at my intermediate or secondary school (18)
- ☐ Spiritual advisor / religious clergy away from the University (19)
- ☐ No one (20)
- ☐ Other (Please specify) (21) _____

Page Break

End of Block: Suicide yes - All

Start of Block: Debrief for Students

Q75 Debrief Sheet

The above link will open a new tab offering additional information regarding the details of the current study. It includes that which may be of interest to you as a student participating in psychological research.

To finish the survey please click the right arrow.

End of Block: Debrief for Students

Start of Block: Ending for Non - SH'ers

Q76 We offer our sincere gratitude and thanks for your contribution to further our understanding of these sensitive and serious issues.

Please feel free to visit our website to learn more about this project.

End of Block: Ending for Non - SH'ers

Start of Block: Self-Harm Therapy Q's for SH-YES

Q77 Have you ever gone to therapy because you intentionally hurt yourself?

- Yes (1)
- No (2)
- Intentionally hurting myself was part of the reason I went but not all of it (3)

Skip To: Q85 If Q77 = No

Q78 Did someone else insist you go to therapy or did you decide to go on your own?

- ○ Someone else insisted that I go (1)
- ○ Someone else suggested it, and then I decided that it was a good idea (2)
- ○ I decided to go myself (3)
- ○ Other (please specify) (4) _____

Q79 How do/ did you your therapist(s) respond to the information that you intentionally hurt yourself? (Please click any that apply)

- [ ] They were comfortable with the information (1)
- [ ] They seemed uncomfortable with the information (2)
- [ ] They asked me to sign a 'no harm' contract (3)
- [ ] They only talked about it if I raised it or it came up as part of another discussion (4)
- [ ] They asked me about it even if I did not raise it or it did not come up as part of another discussion (5)
- [ ] It seemed like stopping me from intentionally hurting myself was a goal of therapy (6)
- [ ] They said I would have to stop regular activities (e.g., school, university, employment, playing sport), at least for a while, if I did not stop intentionally hurting myself (7)
- [ ] They said it was okay for me to intentionally hurt myself as a way to cope with really bad feelings and there was nothing else I could do (8)
- [ ] They said it was a coping mechanism and suggested other methods to cope (9)
- [ ] I have talked to more than one therapist about this and they have each handled it differently (10)
- [ ] Other (please specify) (11) _____

Page Break

Q80 How old were you the **first** time you talked to a therapist about intentionally hurting yourself?

- 10 or younger (1)
- 11-15 (2)
- 16-20 (3)
- 21-25 (4)
- 26-30 (5)
- 31-35 (6)
- 36-40 (7)
- 41-50 (8)
- 50+ (9)

Q81 If you received therapy for any reason, did you intentionally hurt yourself after finishing therapy?

- Yes, I did intentionally hurt myself after therapy (1)
- I reduced hurting myself, but didn't stop. (4)
- No, I completely stopped intentionally hurting myself after therapy (2)

Q82 In your opinion, how helpful was therapy in helping you to stop intentionally hurting yourself?

- ○ Very helpful (1)
- ○ Helpful (2)
- ○ Somewhat helpful (3)
- ○ Not at all helpful (4)
- ○ I have seen multiple therapists about intentionally hurting myself and some helped me and some did not (5)

Page Break

Q83 What in your experience with therapy (even if your experience with intentionally hurting yourself was not the focus of your therapy) has been **most** helpful in helping you to understand or control intentionally hurting yourself?

Q84 What in your experience with therapy (even if your experience with intentionally hurting yourself was not the focus of your therapy) has been **least** helpful in helping you to understand or control intentionally hurting yourself?

Page Break

Q85 I intentionally hurt myself: (Please click all that apply)

- [ ] To cope with uncomfortable feelings (e.g., depression or anxiety) (1)
- [ ] To relieve stress or pressure (2)
- [ ] Because it feels good (3)
- [ ] Because I like the way it looks (4)
- [ ] A self-punishment or to atone for sins (5)
- [ ] To help me cry (6)
- [ ] Because my friends hurt themselves (7)
- [ ] Because my friends expect me to (8)
- [ ] To be part of a group (9)
- [ ] To get a rush or surge of energy (10)
- [ ] In the hopes that someone would notice that something is wrong or that so others will pay attention to me (11)
- [ ] To get control over myself or my life (12)
- [ ] As a way to practice suicide (13)
- [ ] As an attempt to commit suicide (14)
- [ ] To feel closer to God (15)
- [ ] So I do not hurt myself in other ways (16)
- [ ] To shock or hurt someone (17)

- [ ] To distract me from other problems or tasks (18)
- [ ] To change my emotional pain into something physical (19)
- [ ] To avoid committing suicide (20)
- [ ] Because I get the urge and cannot stop it (21)
- [ ] To deal with frustration (22)
- [ ] To create an excuse to avoid something else (23)
- [ ] To deal with anger (24)
- [ ] Because of my self-hatred (25)
- [ ] Other (please specify) (26) _____

Skip To: End of Block If Q85 = To cope with uncomfortable feelings (e.g., depression or anxiety)
Skip To: End of Block If Q85 = To relieve stress or pressure
Skip To: End of Block If Q85 = Because it feels good
Skip To: End of Block If Q85 = Because I like the way it looks
Skip To: End of Block If Q85 = A self-punishment or to atone for sins
Skip To: End of Block If Q85 = To help me cry
Skip To: End of Block If Q85 = Because my friends hurt themselves
Skip To: End of Block If Q85 = Because my friends expect me to
Skip To: End of Block If Q85 = To be part of a group
Skip To: End of Block If Q85 = To get a rush or surge of energy
Skip To: End of Block If Q85 = In the hopes that someone would notice that something is wrong or that so others will pay attention to me
Skip To: End of Block If Q85 = To get control over myself or my life
Skip To: End of Block If Q85 = To feel closer to God
Skip To: End of Block If Q85 = So I do not hurt myself in other ways
Skip To: End of Block If Q85 = To shock or hurt someone
Skip To: End of Block If Q85 = To distract me from other problems or tasks
Skip To: End of Block If Q85 = To change my emotional pain into something physical

Skip To: End of Block If Q85 = To avoid committing suicide
Skip To: End of Block If Q85 = Because I get the urge and cannot stop it
Skip To: End of Block If Q85 = To deal with frustration
Skip To: End of Block If Q85 = To deal with frustration
Skip To: End of Block If Q85 = To create an excuse to avoid something else
Skip To: End of Block If Q85 = To deal with anger
Skip To: End of Block If Q85 = Because of my self-hatred
Skip To: End of Block If Q85 = Other (please specify)

Display This Question:
If Q85 = As a way to practice suicide
Or Q85 = As an attempt to commit suicide

Q86 In the previous question, you indicated that you deliberately hurt yourself with the intention of practicing or committing suicide. Was practicing or committing suicide the **primary** reason you intentionally hurt yourself?

- ○ Yes (1)
- ○ No (2)
- ○ I'm not sure (3)

End of Block: Self-Harm Therapy Q's for SH-YES

Start of Block: Self Harm Experience

Q87 The following questions ask a little more about your experiences with intentionally hurting yourself. We know that this can be a difficult issue to talk about. Please note that there are contact details at the end of the survey which you can use if you feel like you want to talk with someone. These resources were also attached to the invitation email you received. The information you and other students share about this topic will be used to help others who intentionally hurt themselves. Thank you in advance for your time and honesty.

Q88 When was the **last time** you intentionally hurt yourself in one of the ways listed in the earlier questions?

- ○ Less than 1 week ago (1)
- ○ Between 1 week and 1 month ago (2)
- ○ Between 1 and 3 months ago (3)
- ○ Between 3 and 6 months ago (4)
- ○ Between 6 months and 1 year ago (5)
- ○ Between 1 and 2 years ago (6)
- ○ More than 2 years ago (7)

Q89 How likely are you to intentionally hurt yourself again?

- ○ Very likely (1)
- ○ Somewhat likely (2)
- ○ Not sure (3)
- ○ Somewhat unlikley (4)
- ○ Very unlikely (5)

Q90 Approximately on how many total occasions have you intentionally hurt yourself?

- ○ Only once (1)
- ○ 2-3 times (2)
- ○ 4-5 times (3)
- ○ 6-10 times (4)
- ○ 11-20 times (5)
- ○ 21-50 times (6)
- ○ More than 50 times (7)

Q91 On what areas of your body do you tend to intentionally hurt yourself? (Please click all that apply).

- [ ] Wrists (1)
- [ ] Hands (2)
- [ ] Arms (3)
- [ ] Fingers (4)
- [ ] Calves or ankles (5)
- [ ] Thighs (6)
- [ ] Stomach or chest (7)
- [ ] Back (8)
- [ ] Buttocks (9)
- [ ] Head (10)
- [ ] Feet (11)
- [ ] Face (12)
- [ ] Lips or tongue (13)
- [ ] Shoulders or neck (14)
- [ ] Breasts (15)
- [ ] Genitals or rectum (16)
- [ ] Other (Please specify) (17) _____

Page Break

Q92 Which of the following descriptions best describes your motivations for **first** intentionally hurting yourself? (Please click all that apply).

- ☐ A friend suggested I try it (1)
- ☐ I read about it on the internet and decided to try it (2)
- ☐ I saw it in a movie/ television or read about it in a book and decided to try it (3)
- ☐ It seemed to work for other people I know (4)
- ☐ It seemed to work for celebrities I have heard of (5)
- ☐ I accidentally discovered it- I had never seen it or heard about it before (6)
- ☐ It was part of a dare (7)
- ☐ I did it because I had friends who did it and I wanted to fit in (8)
- ☐ I wanted to shock or hurt someone (9)
- ☐ I was upset and decided to try it (10)
- ☐ I wanted someone to notice me and/ or my injuries (11)
- ☐ It felt good (12)
- ☐ I was angry at someone else (13)
- ☐ I was angry with myself (14)
- ☐ I was drunk or high (15)
- ☐ I cannot remember (16)
- ☐ Other (please specify) (17) _____

Page Break

Q93 Have you ever intentionally hurt yourself so badly that you **should** have been seen by a medical professional (even if you were not)?

- ○ Yes (1)
- ○ No (2)

Skip To: Q98 If Q93 = No

Q94 Have you ever intentionally hurt yourself more **severely** than you expected?

- ○ Yes (1)
- ○ No (2)

Q95 How many times have you intentionally hurt yourself more severely than you expected?

- ○ 1 (1)
- ○ 2-3 (2)
- ○ 4-5 (3)
- ○ More than 5 (4)

Q96 On what area(s) of your body have you intentionally hurt yourself more severely than you expected? (Please click all that apply)

- [ ] Wrists (1)
- [ ] Hands (2)
- [ ] Arms (3)
- [ ] Fingers (4)
- [ ] Calves or ankles (5)
- [ ] Thighs (6)
- [ ] Stomach or chest (7)
- [ ] Back (8)
- [ ] Buttocks (9)
- [ ] Head (10)
- [ ] Feet (11)
- [ ] Face (12)
- [ ] Lips or tongue (13)
- [ ] Shoulders or neck (14)
- [ ] Breasts (15)
- [ ] Genitals or rectum (16)
- [ ] Other (Please specify) (17) _____

Q97 Were you under the influence of drugs or alcohol in any instance that you hurt yourself more severely than you expected?

- ○ Yes (1)
- ○ No (2)

Page Break

Q98 How old were you when you **first** intentionally hurt yourself?

- ○ 10 or younger (1)
- ○ 11-15 (2)
- ○ 16-20 (3)
- ○ 21-25 (4)
- ○ 26-30 (5)
- ○ 31-35 (6)
- ○ 36-40 (7)
- ○ 41-50 (8)
- ○ 50 or older (9)

Q99 Have you ever sought medical treatment (not therapy) for any of the physical injuries you intentionally caused?

- ○ Yes (1)
- ○ No (2)

Page Break

Q100 On average, how often do you intentionally hurt yourself while you are in your most active phase(s)?

- Every day (1)
- 2-3 times a week (2)
- Once a week (3)
- 1-3 times a month (4)
- Once every few months (5)
- About once a year (6)
- Once every two years or more (7)

Q101 During the period(s) in which you most actively hurt yourself, what was the longest interval of time during which you **did not** hurt yourself?

- Less than a week (1)
- Less than a month (2)
- 1-3 months (3)
- 4-6 months (4)
- 7-12 months (5)
- More than a year (6)

Page Break

Q102 Which of the following are true for you? (Please click all that apply)

- ☐ I always/usually intentionally hurt myself in private (1)
- ☐ I have friends who intentionally hurt themselves (2)
- ☐ I hurt myself with friends who are doing it too (10)
- ☐ I do not feel much physical pain when I intentionally hurt myself (3)
- ☐ I sometimes intentionally hurt myself in the presence of others who don't do it (e.g. parents, health professionals) (4)
- ☐ I sometimes let other people intentionally hurt me physically (5)
- ☐ I have a regular routine I follow when I intentionally hurt myself (6)
- ☐ I have a particular place/ room I prefer to be in when I intentionally hurt myself (7)
- ☐ I tend to go through periods in which I intentionally hurt myself, then periods in which I do not, and this pattern repeats (8)
- ☐ None of the above (9)

Page Break

Q103 How true are each of the following statements for you during the time of your life that you were intentionally hurting yourself?

	Strongly agree (1)	Somewhat agree (2)	Neither agree nor disagree (3)	Somewhat disagree (4)	Strongly disagree (5)	Does not apply (6)
I have had to intentionally hurt myself more deeply and / or in more places on my body over time to get the same effect (1)	○	○	○	○	○	○
I want to stop intentionally hurting myself altogether, but have trouble stopping (2)	○	○	○	○	○	○
I will not need help from someone to stop intentionally hurting myself altogether- I can do it on my own (3)	○	○	○	○	○	○
I sometimes intentionally hurt myself while under the influence of	○	○	○	○	○	○

drugs or alcohol (4)						
Nothing else worked as well as intentionally hurting myself to calm me down or give me relief (5)	○	○	○	○	○	○
I have had to fight the urge to start intentionally hurting myself again (6)	○	○	○	○	○	○
When I have the urge to intentionally hurt myself it is easy to control it (7)	○	○	○	○	○	○
The fact that I intentionally hurt myself is a problem in my life (8)	○	○	○	○	○	○
I have no desire to stop intentionally hurting myself (9)	○	○	○	○	○	○

Page Break

Q104 The fact that I intentionally hurt myself interferes with: (Please click all that apply)

- ☐ Relationships which are important to me (1)
- ☐ My ability to complete study or work obligations (2)
- ☐ My ability to take care of myself (eat right, exercise, etc.) (3)
- ☐ My ability to engage in hobbies or things that I like to do (4)
- ☐ My self-worth/self-esteem (5)
- ☐ The clothing I wear (6)
- ☐ It does not interfere with my life in any way (7)
- ☐ Other (Please specify) (8) _____

Q105 Which of the following statements is most applicable to your current situation?

- ○ Someone knows that I intentionally hurt myself and has had a conversation with me about it. (1)
- ○ One or more people KNOW OR SUSPECT that I intentionally hurt myself but has not had a conversation with me about it (2)
- ○ No one knows that I intentionally hurt myself (3)

Skip To: Q107 If Q105 = One or more people KNOW OR SUSPECT that I intentionally hurt myself but has not had a conversation with me about it

Skip To: Q113 If Q105 = No one knows that I intentionally hurt myself

Page Break

Q106 Who knows about it and has talked with you about it? (Please click all that apply)

- [ ] Parent or custodial guardian (1)
- [ ] Sibling (2)
- [ ] Friend (3)
- [ ] Significant Other (Boyfriend, girlfriend, or spouse or partner) (4)
- [ ] Other relative (5)
- [ ] Teacher (6)
- [ ] Coach (7)
- [ ] Therapist (8)
- [ ] Physician (9)
- [ ] Religious or spiritual leader (e.g., priest, pastor, kaumatua) (10)
- [ ] Health care provider (11)
- [ ] Other (please specify) (12) _____

Q107 Who knows / suspects about it and has not talked with you about it (Please click all that apply)

- ☐ Parent or custodial guardian (1)
- ☐ Sibling (2)
- ☐ Friend (3)
- ☐ Significant other (boyfriend, girlfriend, or spouse/partner) (4)
- ☐ Other relative (5)
- ☐ Teacher (6)
- ☐ Coach (7)
- ☐ Therapist (8)
- ☐ Physician (9)
- ☐ Religious or spiritual leader (e.g., priest, pastor, kaumatua) (10)
- ☐ Health care provider (11)
- ☐ Other (please specify) (12) _____

Q108 Did you go online to get information about self-injury?

- ○ Yes (1)
- ○ No (2)

Skip To: Q113 If Q108 = No

Display This Question:
If Q108 = Yes

Q109 What motivated you to look online for information about self-injury? (please click all that apply)

- ☐ To find help for myself (1)
- ☐ To find help for someone else who self-injures (2)
- ☐ To find other people who self-injure (3)
- ☐ To find out about why people self-injure (4)
- ☐ Other (please specify) (5) _____

Q110 What online resources regarding self-injury did you use? (Please click all that apply)

- ☐ Online support group (1)
- ☐ Online forums (2)
- ☐ Public health information (3)
- ☐ Online therapy (e-mental health) (4)
- ☐ Contact information for therapists (5)
- ☐ Other online resources (please specify) (6) _____

Q111 Did you find helpful resources online?

- ○ Very Helpful (1)
- ○ Somewhat helpful (4)
- ○ Not Helpful (5)

Q112 If you would like to comment on any online material you have encountered, please do so here

_____

Page Break

Q113 Do you think you will intentionally hurt yourself again?

- ○ Yes (1)
- ○ No (2)

Page Break

Q114 Looking back, how has your experience with intentionally hurting yourself impacted your life, both positively and negatively? (Please click all that apply)

- ☐ It was a working emotional coping strategy (1)
- ☐ I still cannot talk about it and sometimes even thinking about it is difficult (2)
- ☐ It prevented me from attempting suicide (3)
- ☐ The lasting marks/scars are constant reminders of a bad / rough time in my life (4)
- ☐ I am now able to help others who intentionally hurt themselves (5)
- ☐ In thinking / discussing my experience around intentionally hurting myself, I have learned a lot about myself and because of it have mentally / emotionally grown (6)
- ☐ My scars are my battle wounds- I made it through (7)
- ☐ It pushed me further away from people; this is still a problem (8)
- ☐ Discussion of my experience around intentionally hurting myself has helped me grow closer to the people I care about (9)
- ☐ The remaining marks/ scars are a source of embarrassment for me (10)
- ☐ It really did not impact my life much at all (11)
- ☐ Other (please specify) (12) _____

Page Break

Q115 If you have stopped altogether (you are confident that you will **not** intentionally hurt yourself again) please describe why you stopped and what specifically helped you to stop.

_____

Q116 What do you think is important for people who want to understand and help those who intentionally hurt themselves to know?

_____

Page Break

Q117 Were there long periods of time while you were intentionally hurting yourself that you felt:

	Yes (1)	No (2)	I do not know (3)
Nervous (1)	○	○	○
Hopeless (2)	○	○	○
Restless or fidgety (3)	○	○	○
So depressed that nothing could cheer you up (4)	○	○	○
That everything was an effort (5)	○	○	○
Worthless (6)	○	○	○

Page Break

Q118 How old were you the **last** time you intentionally hurt yourself?

- 10 or younger (1)
- 11-15 (2)
- 16-20 (3)
- 21-25 (4)
- 26-30 (5)
- 31-35 (6)
- 36-40 (7)
- 41-50 (8)
- 50 or older (9)

Q119 The term "self-injury" is often used to describe behaviours in which someone intentionally hurts him or herself. Do you think of yourself as a self-injurer?

- Yes (1)
- No (2)

Q120 Did you think of yourself as a self-injurer before responding to this survey?

- Yes (1)
- No (2)

End of Block: Self Harm Experience

Start of Block: Ending of Survey

Q121 Lastly, we will be conducting more research, specifically about people's experiences of harming themselves. You can find more information by clicking the link to our website (which will open in a new window - allowing you to continue on here) or email: shine.project@waikato.ac.nz

If you are interested in taking part in further research in this project, please click the appropriate response below. Please note that all contact details will be collected and stored separately from your survey answers. Your survey answers will remain totally anonymous.

- ○ Yes, please take me to enroll to participate in further research. (4)
- ○ No, thank you. (5)

End of Block: Ending of Survey

Appendix C: Survey Info Sheet 2023

Emotional Health Research: The SHInE Project Survey

THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

Background Information

Tēnā koe, Talofa Lava, Bula Vinaka, Malo e Lelei, Fakalofa Lahi Atu, Nihao, Namaste, Chao, Kia orana, as-salām alaikum, warm greetings to you.

You are invited to participate in a study aimed at assessing young people's emotional health – in particular, how they deal with difficult emotions. The study is intended to better understand how services may be improved to help better meet needs. This survey is part of a larger study being conducted by a University of Waikato (School of Psychology) staff member, Dr Cate Curtis. The survey will be the basis of Anita Trappitt Smith's master's research.

Procedures

Participation in this study requires responding to online survey questions. The length of your participation in this survey is dependent on how you respond to some questions – some questions will be skipped if they don't apply to you, based on the answers you give. On average, it will take you about 20 minutes to complete this survey, but it could vary from approximately 5 to 30 minutes.

Anonymity

It is up to you whether you give us any identifying information; if you prefer not to, you're still very welcome to complete the survey. There are four reasons why you might choose to give us your contact information (such as your first name and email or phone number):

1. To be entered into the prize draw. We would use your name and telephone number only to alert you if you have won a prize.
2. To gain a mark to be credited towards a relevant University of Waikato psychology paper. Students in the following papers can have 2% credited: PSYCH101, PSYCH 314 PSYCH 319, or PSYCH 337. Please note that you cannot enter the draw and receive a mark, only one or the other. If you decide not to take part, you can earn the 2% by completing a text-based research exercise.
3. To request a summary of the findings.
4. To volunteer for further research.

Please note that all contact details will be collected and stored separately from your survey answers. Your survey answers will remain totally anonymous.

The survey is being hosted by Qualtrics. Although it is theoretically possible that a determined "hacker" may enter the survey database, this is extremely unlikely. The data will be stored on a secure server, and access to the survey data is password-protected.
Only the research team will have access to your responses. Once the study is complete, the collated data will exist only on the Research Leader's (Dr Cate Curtis) computer.

Voluntary Participation

If you decide to participate, but change your mind, you are free to withdraw at any time, by closing your web browser. In addition, you may choose to not answer specific questions and continue with the survey. However, once you've completed the survey and closed it, it won't be possible to remove the information you've given, as it will be anonymous.

Risks and Benefits

This survey addresses several topics that might be difficult to think about. Please keep in mind you may choose to not answer a question or questions and may stop your participation at any time by simply closing your web browser. In addition, at the beginning and completion of this online survey, a list of names and contact information for people who can provide you with help and information about any mental health concerns you may have will be provided.

Your involvement will enhance general understanding of the emotional well-being issues people face. You will also be provided with information on support services. In addition, many people find that participating in research is rewarding in and of itself.

Incentives to Complete the Survey

As an incentive to complete the survey, participants may elect to enter a draw to win one of three $50 Warehouse vouchers. If you wish to enter this prize draw, simply follow the instructions at the end of the survey.

However, some University of Waikato students may choose to earn 2% course marks instead, if they are enrolled in a relevant psychology paper. You will need to enter the survey through the appropriate Introduction to Psychological Research Program (IPRP) survey link to apply for bonus marks.

Whether you prefer to enter the draw, or get the 2% bonus marks, your name will be separated from the survey data; that is, your survey answers will be kept anonymous.

Final Report

Once we have closed the survey and analysed results a master's thesis on the findings will be written, followed by other reports and presentations. A summary of the findings will be made available upon request. You can indicate if you would like this summary by entering your email address at the end of the survey.

Further information

More information on the project will be available through our website https://theshineproject2023.wordpress.com/. This will include information on other parts of the research, and once analysis has been completed, reports on the research.

Contacts and Questions

Please contact the research team at shine.project@waikato.ac.nz or the research leader, Dr Cate Curtis: cate.curtis@waikato.ac.nz if you have any questions or concerns related to this study.

This research project has been approved by the Human Research Ethics Committee of the University of Waikato: application number: HREC(Health)2023#16. Any questions about the ethical conduct of this research may be sent to the Secretary of the Committee, email humanethics@waikato.ac.nz

Thank you for considering participation in this survey.

Appendix D: SHInE Survey 2023 Recruitment Email

Tena kōe,

I am a master's student studying Community Psychology at the University of Waikato. I have been drawn to study psychology later in life as I have lived experience supporting young people who have struggled significantly with their mental health and wellbeing.

As a part of earning my degree, I am conducting an anonymous online survey aimed at assessing young people's emotional health – in particular, how they deal with difficult emotions. This survey will help shed light on issues that many of us face and help to better understand how mental health services can be improved.

I am passionate about helping create positive change to achieve better mental health and wellbeing for our youth in Aotearoa, New Zealand. In order to do that, we need to hear from the true experts - young people, themselves.

We are hoping to have somewhere between 300 - 500 youths, aged 16 or older, who typically live in New Zealand, complete this survey. Homegrown studies of this kind are important as they provide a vital insight to the current level of wellbeing and types of mental health challenges our own youth are experiencing.

The survey takes an average of 20 minutes to complete and you can enter the draw to win one of three $50 prize vouchers.

Please note that survey questions include mental health issues which can be difficult to think about. Resources for mental health support services are provided throughout the survey. This research has been approved by the University of Waikato Human Research Ethics Committee (Approval No: HREC(Health)2023#16).

If you or someone you know (aged 16 or older, please) would like to share their experience and knowledge with us we would be sincerely grateful.

Please click the link for more information and to take the survey. A flyer including a QR code for accessing the survey is also attached.

Check out our website for more about our team and wider research.

Feel free to share this survey through your own networks. Any help to get the word out would be greatly appreciated!

Thank you for your time and consideration.

Nāku, na
Anita
Anita Trappitt Smith *(she/her)*
Master's Student Researcher | The SHInE Project
Community Psychology | Division of Arts, Law, Psychology & Social Sciences | University of Waikato

Appendix E: Recruitment Flyer

Appendix F: Ethics Approval Letter

The University of Waikato
Private Bag 3105
Gate 1, Knighton Road
Hamilton, New Zealand

Human Research Ethics Committee
Roger Moltzen
Telephone: +64021658119
Email:humanethics@waikato.ac.nz

THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

6 June 2023

Cate Curtis
School of Psychology
DALPSS
By email: cate.curtis@waikato.ac.nz

Dear Cate

HREC(Health)2023#16 : Injuring oneself, injuring others: Distinctions and commonalities (The Meliora Project)

Thank you for your responses to the Committee feedback.

We are now pleased to provide formal approval for your project.

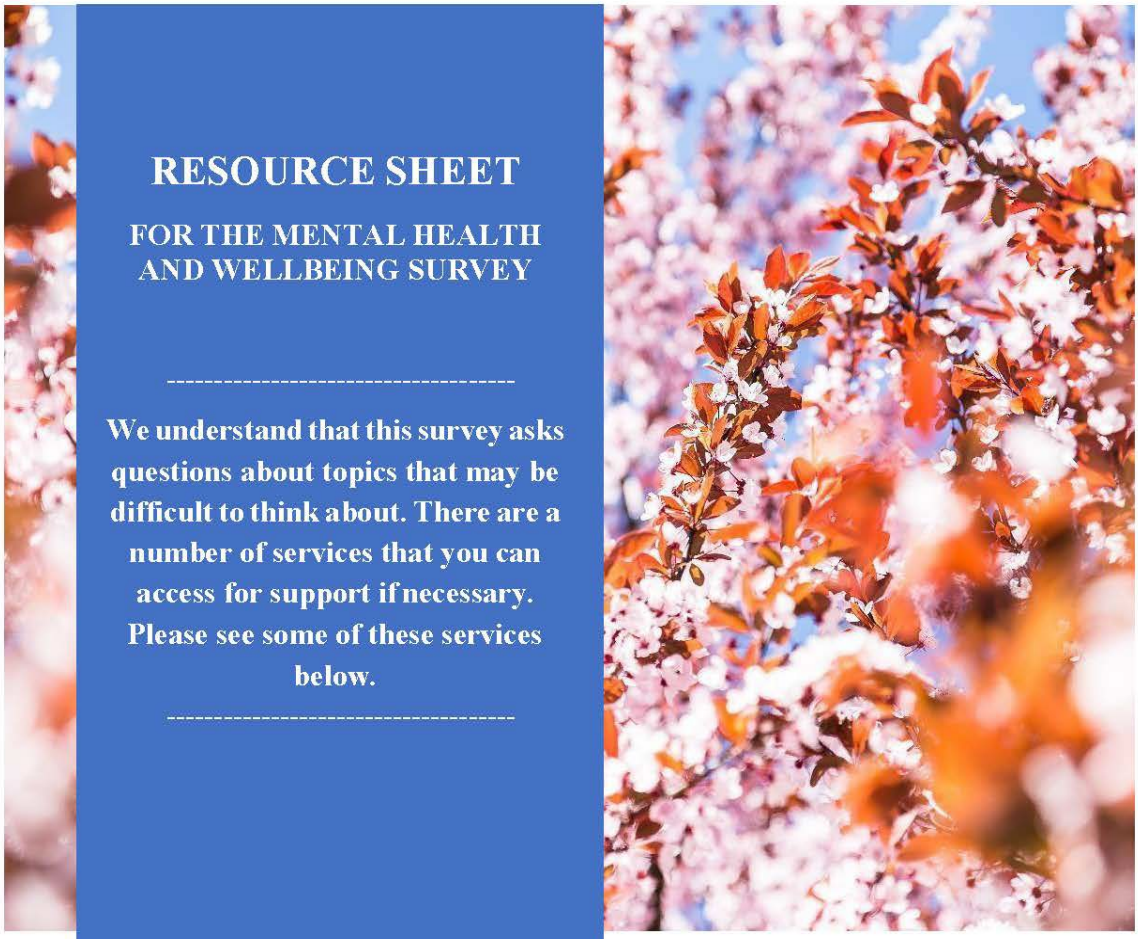
Please contact the Committee by email (humanethics@waikato.ac.nz) if you wish to make changes to your project as it unfolds, quoting your application number with your future correspondence. Any minor changes or additions to the approved research activities can be handled outside the monthly application cycle.

We wish you all the best with your research.

Regards,

Emeritus Professor Roger Moltzen MNZM
Chairperson
University of Waikato Human Research Ethics Committee

Appendix G: Resource Sheet



RESOURCE SHEET

FOR THE MENTAL HEALTH AND WELLBEING SURVEY

We understand that this survey asks questions about topics that may be difficult to think about. There are a number of services that you can access for support if necessary. Please see some of these services below.

Adult Mental Health Services

Below is a list of some of the services available in New Zealand that offer support, information and help. All services are available 24 hours a day, seven days a week unless otherwise specified.

Free call or text **1737** any time for support from a trained counsellor.

Health Line: **0800 611 116**
Samaritans: **0800 726 666**
http://www.mentalhealth.org.nz/get-help/in-crisis/helplines/

Emergency Department at the Hospital

The Emergency Department is the "front door" of Hospital where urgent cases can come either by ambulance or present themselves for assessment and treatment. Priority is given to those who have a serious problem. The Emergency Department is open 24 hours a day, 7 days a week.
Or, **Phone 111 in an emergency.**

Lifeline Aotearoa

New Zealand's telephone counselling service provides 24 hours a day, 7 days a week counselling and support:
Lifeline 24/7: 0800 543 354 or text HELP to 4357
TAUTOKO Suicide Crisis Line: 0508 828 865
www.lifeline.org.nz

Depression, Anxiety, Distress Helplines New Zealand

New Zealand free phone helplines to talk to a trained counsellor, available 24 hours a day, 7 days a week:
Depression Helpline: 0800 111 757 or TEXT 4202 http://depression.org.nz

Anxiety Helpline: 0800ANXIETY (0800 269 4389)
The Lowdown: Free text 5626 or https://www.thelowdown.co.nz/help

Appendix H: Student Debrief

School of Psychology

THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

Student Debrief Online Survey - HREC(Health)2023#16: Injuring oneself, injuring others: Distinctions and Commonalities (The SHInE Project: Self Harm Injury Exploration)

Dr. Cate Curtis	**Dr. Nicky Kanade**	**Anita Trappitt Smith**
Principal Investigator & Team Leader	*Research Administrator*	*Master's Student Researcher*
cate.curtis@waikato.ac.nz	nkanade@waikato.ac.nz	at298@students.waikato.ac.nz

Tēnā koe ākonga,

You have just participated in an anonymous online survey where we asked you to share your experiences regarding potentially sensitive topics, such as: suicide, non-suicidal self-injury (NSSI), interpersonal relationships, and violence (both physical and sexual).

Throughout the survey, we provided resources that may be helpful if you feel distressed due to thinking about these difficult topics. Those resources are also at the end of this sheet.

The aim of this survey is to assess the emotional health of young people in Aotearoa. Specifically, we want to better understand the challenges young people face, including how you cope with these and the difficult emotions that often accompany them.

Background information

These days it seems that both non-suicidal self-injury (NSSI) and other-directed injury (ODI) are on the rise. In Aotearoa, many young people are exposed to self-harm and aggressive behaviours on an almost daily basis - either through personal experience or social media. These behaviours can have a devastating and destructive effect on both the participants and those around them.

In general, NSSI and ODI are usually thought to be extremely different. For example, people who harm themselves are met with compassion and concern, whereas, people who harm others are often considered 'bad' and despised or punished for their behaviour.

Research Question

How likely is it that inward directed self-injury (like NSSI) and outward directed injury (i.e., violence or aggression) are extreme ways of coping with the same issues, especially when it comes to managing negative emotions?

Variables of interest

This study will help discover any similarities in the purpose, social/cognitive factors, and risk/protective factors that are present across both NSSI and ODI.

Theories

We suspect there are significant overlaps between NSSI and ODI around risk factors (social and cognitive), immediate triggers, and functions. Using adapted tools that are well-validated for assessing a variety of factors related to NSSI, we will be able to test these theories. Armed with a deeper understanding of the underlying motivation and purpose of injurious behaviours, this research might transform the way we understand these two significant social and health issues. Furthermore, this research could also lead to innovations in prevention, emotional support, and rehabilitation.

We offer our sincere gratitude and thanks for your contribution to further our understanding of these sensitive and serious issues.

Please feel free to contact us with any further questions regarding this study.

Kia ora rawa atu, nā mātou noa, nā – Many thanks, yours sincerely,

Dr. Cate Curtis, Dr. Nicky Kanade, and Anita Trappitt Smith

Adult Mental Health Services	**Lifeline Aotearoa**
Below is a list of some of the services available in New Zealand that offer support, information, and help. All services are available 24 hours a day, seven days a week unless otherwise specified. **Free call or text 1737 any time for support from a trained counsellor.** **Health Line:** 0800 611 116 **Samaritans:** 0800 726 666 **Mental Health Foundation:** https://mentalhealth.org.nz/help **Emergency Department at the Hospital** The Emergency Department is the "front door" of Hospital where urgent cases can come either by ambulance or present themselves for assessment and treatment. Priority is given to those who have a serious problem. The Emergency Department is open 24 hours a day, 7 days a week. Or please, **Phone 111 in an emergency.**	New Zealand's telephone counselling service provides 24 hours a day, 7 days a week counselling and support: **Lifeline 24/7:** 0800 543 354 or text HELP to 4357 **TAUTOKO Suicide Crisis Line** 0508 828 865 www.lifeline.org.nz **Depression, Anxiety, Distress Helplines** New Zealand New Zealand free phone helplines to talk to a trained counsellor, available 24 hours a day, 7 days a week: **Depression Helpline:** 0800 111 757 or TEXT 4202 https://www.depression.org.nz/ **Anxiety Helpline:** 0800ANXIETY (0800 269 4389) **The Lowdown:** Text 5626 or find great online resources here https://www.thelowdown.co.nz/help

Appendix I: Self-injurious Behaviour (SIB) for Non-Binary Participants

TABLE 14

Self-injurious Behaviour (SIB) type compared to Non-Binary Gender Category

Type of SIB	Number (n)	Percent (%)	$X^2(2)$	*p*
SDI				
Scratch / Pinch	9	5.6	18.35	<.001
Cutting	6	4.7	13.04	.001
Acid on Skin	0	0.0	1.53	.465
Burns	1	4.0	0.30	.863
Carved on Skin	4	7.3	4.30	.116
Ingestion	3	18.8	14.13	<.001
Bitten	4	7.5	5.11	.078
Tried to Break Bones	1	4.2	2.20	.333
Broke Bones	0	0.0	5.25	.769
Rip / Torn Skin	3	5.4	3.05	.218
Strangulation	3	8.1	4.90	.086
Other Burns Upper Body	3	5.7	5.25	.073
Sharp Objects in Skin	3	6.5	4.26	.119
Banged or Punched Self	4	5.8	3.19	.203
Prevent Wounds Healing	4	6.3	5.76	.056
Mutilate Genitals	0	0.0	0.31	.858
Pulling Hair Out	4	8.3	4.64	.098
ODI				
Banged or Punched objects	6	6.9	9.18	.010
Fighting or aggressive activities	0	0.0	17.78	<.001
Picked a fight	0	0.0	2.92	.232
Annoy or verbally abuse someone to illicit self-harm	2	5.4	1.29	.524
Physically assaulted someone	0	0.0	1.55	.460

Note. N = 341. Non-binary gender data is reported separately to equal 100%. X^2 = chi-square statistic; (*df*) = degrees of freedom, in each case = 2; *p* = p-value. SDI = self-directed injury; 2 missing values; Bonferroni adjusted α = .00294. ODI = outward-directed injury; there were between seven and eight missing cases; Bonferroni adjusted α = .0125.

Appendix J: Means and SD for Lifetime SDI and ODI by DASS Subscales

TABLE 15

Means and Standard Deviations for Lifetime SDI and ODI by DASS Subscales

Variable	Stress		Anxiety		Depression		
	M	*SD*	*M*	*SD*	*M*	*SD*	*n*
Lifetime SDI							
Present	17.77	4.53	15.79	5.14	16.29	6.00	197
None	13.81	4.11	11.18	3.46	11.52	4.08	145
Lifetime ODI							
Present	18.19	4.02	16.16	4.85	16.88	5.32	113
None	15.05	4.77	12.69	4.74	12.98	5.55	229

Note: $N = 342$. 2 missing cases.