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# **Exploring the constructs young people hold about non-suicidal self-injury**

A thesis presented in partial fulfilment of the  
requirements for the degree of

Master of Health Science

in

Psychology

at Massey University, Manawatū,  
New Zealand.

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2019

## **ABSTRACT**

Non-suicidal self-injury (NSSI) is a highly prevalent and alarming behaviour that has recently been highlighted as an area needing further research. It is not a stand-alone diagnosis, however features as a symptom in several disorders. NSSI also features heavily in the general population, in those who have not reached a diagnostic threshold. Prevalence rates and risk factors for New Zealand and the rest of the world are continuing to emerge as a clear single definition of the behaviour is agreed on. Theories about the function NSSI behaviour serves for the individual engaging in it are continuing to be explored, and several promising interventions are also being developed. Non-suicidal self-injury is typically a private behaviour, which makes reaching those who engage in the behaviour difficult.

Exploring the ideas that young people hold about those who engage in non-suicidal self -injury is the focus of this current research. This is conducted to understand more about ways the behaviour is viewed by both people with a history of NSSI, and those with no history. The aim is twofold, firstly to see what researchers have to say about NSSI behaviour and how lay views, the views of the participants align with these views or if the participants view NSSI in a completely different manner. Secondly, to see if those with a personal history of NSSI respond in a different way to those with no personal history of NSSI.

Seventeen females were interviewed, using an existing technique, mixed repertory grid analysis, to explore and understand the views they hold about people they know and believe to have engaged in NSSI. This technique required each participant to rate people they know in relation to how closely they align with contrasting concepts.

Findings provide evidence to support the use of repertory grids to explore views of NSSI behaviour. Views of participants both with and without a history of NSSI align with what previous research has found in relation to existing risk factors of NSSI. Adding to previous research, the use of lay experts to develop interventions could prove useful, exploring the protective role of belonging in relation to NSSI and exploring poor work ethic and reliability as outcomes of NSSI behaviour. Health promoting initiatives that provide practical guidelines for family members and peers of those who engaged in NSSI with a focus on NSSI specifically as opposed to self-harming behaviour in general is needed.

## **Acknowledgements**

I would like to thank my supervisor, Dr John Fitzgerald who was willing to work with me to develop this thesis topic and has supported and encouraged me throughout the process. Without you this whole process would never have been initiated. I would like to thank my participants for being prepared to share their views with me, your insights and personal experiences are greatly appreciated. I hope that your personal experiences will benefit others. I also wish to thank my mother, Sylvia McKegg who believed in me time and time again when I was ready to give up. Finally, I wish to thank my partner who has supported me through the whole process.

## **Preface**

One of the key pieces of information I gathered while researching NSSI, is that people approach this behaviour from so many different backgrounds and experiences, however the key factor that is always the same, is people engage in NSSI because it makes them feel better emotionally, it relieves the emotional pain that they cannot seem to relieve in any other way. I became interested in NSSI as a topic of research during my honours year at Massey University. I knew I wanted to do something around identity development, as that was something I personally struggled with. I talked to Dr John Fitzgerald who suggested exploring how people view those who engage in NSSI. I liked the idea but did not personally connect myself to the topic. However now after spending a second year on the topic, I have finally allowed myself to connect to it. This is a behaviour that I had a major issue with personally, and I want to be able to use my personal experience, my research skills, and my caring personality to be able to help other young people with this behaviour (my personal disclosure can be found in appendix A).

This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern A, Application SOA 18/40. If you have any concerns about the conduct of this research, please contact Dr Lesley Batten, Chair, Massey University Human Ethics Committee: Southern A, telephone 06 356 9099 x 85094, email [humanethicsoutha@massey.ac.nz](mailto:humanethicsoutha@massey.ac.nz) .

## TABLE OF CONTENTS

Abstract .....	ii
Preface and Acknowledgements.....	iii
Tables and Figures .....	v
List of Abbreviations .....	vi
Introduction .....	1
Background .....	1
Chapter One: Summary of Non-Suicidal Self-Injury	
What is known so far about Non-Suicidal Self-Injury.....	5
Risk Factors .....	5
How Non-Suicidal Self-Injury is Viewed by Others .....	7
Where Non-Suicidal Self-Injury Fits into Mental Health.....	9
Stopping Non-Suicidal Self-Injury Behaviour .....	17
Available Interventions for Non-Suicidal Self-Injury .....	18
Chapter Two: Personal Construct Theory	
Summary of Personal Construct Theory .....	27
Repertory Grid Analysis.....	29
Supplied Constructs .....	32
Chapter Three: The current Research	
Methods.....	38
Results .....	43
Discussion .....	65
Conclusion .....	75
References .....	77
Appendices .....	98
Appendix A. Personal Disclosure.....	98
Appendix B. Participant Consent Form.....	101
Appendix C. – S. Participant Repertory Grids 1 through to 17.....	102
Appendix T. Participant Recruitment Flyer.....	108
Appendix U. Participant Information Sheet.....	109
Appendix V. Participant Screening Form.....	112
Appendix W. Repertory Grid Template used for Each Interview.....	114

## List of Tables

<i>Table 1.</i> Demographics for Participants with a History of NSSI .....	38
<i>Table 2.</i> Demographics for Participants with No History of NSSI .....	38
<i>Table 3.</i> Six Supplied Constructs Provided to Each Participant.....	40
<i>Table 4.</i> Mean Ratings of Supplied Constructs by Element Type from Participants with No History of NSSI.....	44
<i>Table 5.</i> Mean Ratings of Supplied Constructs by Element Type from Participants with a History of NSSI.....	44
<i>Table 6.</i> Analysis of Variance for Supplied Constructs from Participants with No History of NSSI.....	46
<i>Table 7.</i> Analysis of Variance for Supplied Constructs from Participants with a History of NSSI .....	46
<i>Table 8.</i> Pearson's Product Moment Correlation Matrix of Elements from Participant Eight (no History) .....	48
<i>Table 9.</i> Pearson's Product Moment Correlation Matrix of Elements from Participant Three (history) .....	48
<i>Table 10.</i> Pearson's Product Moment Correlation Matrix of Elements from Participant Seven (history) .....	49
<i>Table 11.</i> Pearson's Product Moment Correlation Matrix of Emergent Poles from Participant Seven (no history) .....	51
<i>Table 12.</i> Pearson's Product Moment Correlation Matrix of Emergent Poles from Participant Eight (no history) .....	52
<i>Table 13.</i> Pearson's Product Moment Correlation Matrix of Emergent Poles from Participant Six (history) .....	53
<i>Table 14.</i> Reasons Participants with a History of NSSI Attribute to Stopping .....	64

## List of Figures

<i>Figure 1.</i> Focus Cluster Analysis of Elements and Constructs from Participant Four's grid (no history) .....	57
<i>Figure 2.</i> Focus Cluster Analysis of Elements and Constructs from Participant Five's grid (no history) .....	58
<i>Figure 3.</i> Focus Cluster Analysis of Elements and Constructs from Participant Four's grid (history) .....	59
<i>Figure 4.</i> Focus Cluster Analysis of Elements and Constructs from Participant Eight's grid (history) .....	59
<i>Figure 5.</i> A Principal Component Analysis of Elements and Constructs from Participant Four's Grid (history) .....	61
<i>Figure 6.</i> A Principal Component Analysis of Elements and Constructs from Participant Six's Grid (no history) .....	62

## **List of Abbreviations**

ACT	Acceptance and commitment therapy
AN	Anorexia nervosa
ANOVA	Analysis of variance
APA	American Psychological Association
ASH	Alternative to self-harm
BPD	Borderline personality disorder
CBT	Cognitive behaviour therapy
CFT	Compassion focused therapy
DBT	Dialectical behaviour therapy
DBT-A	Dialectical behaviour therapy for adolescents
DGT	Developmental group therapy
DSH	Deliberate self-harm
DSM	Diagnostic and statistical manual of mental disorders
ERGT	Emotion regulation group therapy
FBAT	Family-based attachment therapy
ICD	International statistical classification of diseases and related health problems
MACT	Manual-assisted cognitive behaviour therapy
MBCT	Mindfulness based cognitive therapy
MBT-A	Mentalisation based treatment for adolescents
MSC	Mindful self-compassion
MST	Multisystemic therapy
No-NSSI	Individuals who have never engaged in NSSI
NSSI	Non-suicidal self-injury
PCA	Principal component analysis
PCT	Personal construct theory
PST	Problem solving therapy
RCT	Randomised control trial
SD	Standard deviation
TA	Therapeutic assessment
TAU	Treatment as usual
T-SIB	Treatment for self-injurious behaviour
VMT	Voice movement therapy



## **Introduction**

“I kept cutting, because it worked. When I cut, I felt better for a while. When I cut, my life no longer overwhelmed me” (Kettlewell, 1999, pp.176).

Non-suicidal self-injury (NSSI) is defined as purposeful and self-directed damage to the body without the intent to die as a result. This behaviour is not socially or culturally acceptable (American Psychological Association [APA], 2013). Self-harming behaviour is referred to by many different names. A variety of behaviours are considered NSSI which individuals engage in repeatedly. NSSI impacts individuals of all ages with the most common age of onset being adolescence. Prevalence rates tend to differ due to difficulties gathering data. This behaviour occurs across genders, ethnicities, and sexual orientations. Despite NSSI being a major issue worldwide, there is still a great lack of understanding about what causes the behaviour, why individuals engage in it, and how to help them. Many of those who engage in NSSI do not seek help from health professionals, and those that do seek help turn to close friends and family, who are unequipped to help. Understanding how health professionals, peers, and family members view those who engage in NSSI is vital to learning more about the behaviour. A number of negative outcomes are associated with NSSI, highlighting the importance of having effective prevention and intervention strategies available. Some interventions appear promising, however at this stage no single intervention is the preferred choice.

This current research is grounded on personal construct theory (PCT), which was designed to help individuals make sense of their world through developing and maintaining personal constructs which they use to understand and predict events in their lives. Repertory grid analysis is a technique used to draw out information from individuals about their own personal constructs. Repertory grid analysis is used in this current research to explore and understand the personal constructs individuals with a history of NSSI and individuals with no personal history of NSSI hold about people in their lives who engage in NSSI. Six constructs were supplied to participants and five constructs were elicited from participants during the interview. Repertory grid analysis can be used to uncover how people think, in a way that traditional surveys or checklists can miss. This current research is first an exploration of what is currently known about NSSI, it then builds on this understanding by using mixed repertory grid analysis to explore the constructs that young people hold about NSSI. Uncovering how NSSI is viewed and exploring if this is similar or different to researchers views on NSSI can provide direction for public health initiatives and guiding future interventions.

## **Background and Demographics of Non-Suicidal Self-Injury**

There are a range of definitions and terminology used to describe hurting oneself deliberately in order to feel better. Cutting, deliberate self-harm (DSH), NSSI, parasuicide, self-injurious behaviour, and self-mutilating behaviour are all terms used to describe this behaviour (Klonsky, 2007).

This current research is using the term NSSI. NSSI clearly differentiates between suicidal intent and no suicidal intent, as many other terms are ambiguous in this regard (Van Vliet & Kalnins, 2011).

Individuals have been reported to use a variety of methods to inflict damage on their body. Wester and Trepal (2017) found individuals reporting up to 11 different methods, however the average was found to be two or three. They also found that many begin hurting themselves with one method, and build up a tolerance to it, and move on to something else. The most common method is cutting (Briere & Gil, 1998; Martin, Swannell, Hazell, Harrison, & Taylor, 2010; Zubrick et al., 2016), however burning, hitting, or punching oneself, banging one's head or another body part against something, rubbing objects into skin, pulling out hair, scratching oneself, preventing wounds from healing, biting one's self, and breaking one's bones are all techniques used (Briere & Gil, 1998; Klonsky, 2007; Muehlenkamp & Gutierrez, 2004). Different methods have been found to be used for different reasons, for example cutting may be used to regulate emotions and burning may be used to self-punish (Wester & Trepal, 2017). Very few individuals engage in NSSI once, with averages ranging from 3.4 times (Soloff, Lis, Kelly, Cornelius, & Ulrich, 1994) to 50 times (Favazza & Conterio, 1989) in an individual's lifetime. Highlighting just how common and varied NSSI behaviour is. The average age of onset is between 13 and 15 years old (Favazza & Conterio, 1989; Nixon, Cloutier, & Jansson, 2008; Nock, Joiner, Gordon, Lloyd-Richardson & Prinstein, 2006; Walsh & Rosen, 1988), with rates peaking during adolescence, and typically decreasing in early adulthood (Muehlenkamp et al., 2012; Wester & Trepal, 2017). NSSI has been reported in children as young as 6 (Nock & Prinstein, 2004). Many people in their 20s and 30s have also been found to engage in NSSI (Adler & Adler, 2011; Wester & McKibben, 2016). Individuals typically engage in NSSI for around 10 to 15 years (Muehlenkamp, 2005) and it is suggested that many tend to stop on their own as they mature, however some do require clinical intervention (Stanford et al., 2017; Walsh & Rosen, 1988).

## **Prevalence Rates**

Prevalence rates appear to be extremely high, with research finding that up to 82.4% of adolescents in a clinical population have engaged in NSSI (Cloutier, Martin, Kennedy, Nixon, & Muehlenkamp, 2010; DiClemente, Ponton, & Hartley, 1991; Nock & Prinstein, 2004). Rates are also high in adolescent community samples, with lifetime prevalence rates up to 47.4% (Giletta, Scholte, Engels, Ciairano, & Prinstein, 2012; Hasking, Momeni, Swannell, & Chia, 2008; Muehlenkamp et al., 2012; Paivio & McCulloch, 2004; Williams & Hasking, 2010). A recent study of University students in New Zealand found 38% had engaged in NSSI at some stage in their lives (Fitzgerald & Curtis, 2017). Lifetime prevalence rates for adolescent community samples in New Zealand range from 24% to 48.7% (Clark et al., 2013; Garisch & Wilson, 2015; Wilson et al., 2016). Despite variability in prevalence rates, these figures indicate that NSSI affects a great number of adolescents in both clinical and community populations.

### **Issues with gathering prevalence data.**

Gathering data on NSSI prevalence has proven difficult due to several factors. Firstly, NSSI is typically a behaviour conducted in private. Many do not disclose their behaviour to others or seek medical attention for their behaviour (Adler & Adler, 2007; Selekman, 2009). Williams and Hasking (2010) suggest that because of this, prevalence rates could be much higher than often suggested. Secondly, due to the sampling strategy used in a lot of research, many populations are not often accessed (Black & Kisely, 2018). Thirdly, prevalence rates are often based on lifetime NSSI, however sometimes they are taken over the 3 months, 6 months, or 12 months prior to conducting the research. Resulting in quite differing figures. Some research only considers NSSI if it is severe and repetitive, whereas some include NSSI if it has only been engaged in once by the individual. Early research on NSSI prevalence was gathered from hospital admissions and psychiatric samples resulting in a potentially distorted understanding NSSI (Evans, Hawton, Rodham, & Deeks, 2005). Finally, methodological differences have been found to influence prevalence figures. For example, Evans and colleagues (2005) found that the way a question is worded can influence figures (e.g., 'ending your life' vs. 'attempting suicide'). Muehlenkamp and colleagues (2012) found that prevalence rates for NSSI almost doubled when a behavioural checklist was used instead of single item questions. Swannell, Martin, Page, Hasking, and St John (2014) suggest that checklists may be more accurate as the list requires participants to take more time to process each item (recognition task), as opposed to a simple yes or no (free recall task). It is further suggested that participants may not immediately recall an episode of NSSI without being prompted, for example those who have engaged in NSSI sporadically over their lives may not immediately associate the behaviour with NSSI (Swannell et al., 2014). Wester and Trepal (2017) explain that many individuals may not identify as a self-injurer and do not believe that the activity they are engaging in is self-injury. So, they respond 'no' to a self-injury question, where as they might respond 'yes' to a question about specific behaviours for example scratching. A standardised inventory designed specifically to measure NSSI behaviour would reduce these methodological differences.

### **Gender differences.**

NSSI is typically thought of as a female behaviour, however it is unclear whether females are actually more likely to engage in NSSI than males, some research points that way (e.g., Laye-Gindhu & Schonert-Reich, 2005; Rodham, Hawton, & Evans, 2004), yet other research has found no significant difference (e.g., Briere & Gil, 1998; Gratz, 2001; Klonsky et al., 2003; Lloyd-Richardson, Perrine, Dierker, & Kelley, 2007; Nock & Prinstein, 2004). There are certain behaviours that males are more likely to engage in that are not included in early research on NSSI. It is suggested that many studies limit their inclusion criteria to behaviours more common among females, for example cutting (Muehlenkamp & Gutierrez, 2004). However, when behaviours more frequently reported by males for example hitting or burning themselves are included in the research, results are different (Andover,

Primack, Gibb, & Pepper, 2010; Barrocas, Hankin, Young, & Abela, 2012). For example, when Muehlenkamp and Gutierrez (2004) included 'punching a wall' in their criteria and found that slightly more males reported NSSI than females. The inclusion of NSSI as a distinct disorder in the Diagnostic and Statistical Manual of Mental Disorders fifth edition (DSM-5; APA, 2013) would minimise this variance of what is considered an NSSI behaviour.

Reasons why females and males tend to engage in different self-harming behaviours have been explored. For example, Bresin and Schoenleber (2015) suggest that females and males regulate their emotions in different ways resulting in their psychopathology being demonstrated in different ways. It has been suggested that females turn pain and hostility inward and males externalise their hurt and engage in outwardly destructive behaviour (Adler & Adler, 2011). Adler and Adler (2011) found that males tended to cut deeper and thicker but had fewer scars (Adler & Adler, 2011). Fitzgerald and Curtis (2017) that females were more likely to engage in chronic self-injury and were more likely to engage in more private forms of self-injury that can be hidden or disguised. In contrast, males were found to be more likely to engage in overt forms of self-injury, for example banging or punching themselves or objects with their hands or head (Fitzgerald & Curtis, 2017). Understanding the differences in how NSSI is demonstrated across genders is important as it provides insight into how males can demonstrate NSSI in a way that is often overlooked.

### **Ethnic differences.**

Most of the available research on NSSI behaviour has used a Caucasian sample, due to most of the research being conducted in Caucasian countries with researchers accessing the most convenient population, Caucasians (Hamza, Stewart, & Willoughby, 2012; Muehlenkamp & Gutierrez, 2004; Wester & Trepal, 2017). However, NSSI has been found to occur in people across many races and ethnicities (Hamza et al., 2012; Whisenhunt & Kress, 2013). Recent research in New Zealand found NSSI prevalence rates to be similar between Māori and non-Māori (Fitzgerald & Curtis, 2017; Wilson et al., 2015), despite the suicide rate for Māori being much higher than non-Māori (Ministry of Health, 2016). An interesting finding by Wester and Trepal (2015) is that young people who felt that they belonged to or identified with an ethnic group were less likely to engage in NSSI. Suggesting that a sense of belonging can work as a protective factor. Further development of research with a focus on protective factors and ethnic differences is needed.

### **Sexual orientation.**

Existing research on risk factors for NSSI points towards sexual orientation playing a role in the development of NSSI. Early research by Walsh and Rosen (1988) indicates that many individuals who engage in NSSI feel body dissatisfaction, alienation, or feel disgusted with their sexuality. A New Zealand study recently found that risks for NSSI engagement were greater for females who were lesbian or bisexual (Fitzgerald & Curtis, 2017). Skegg, Nada-Raja, Dickson, Paul, and Williams

(2003) suggest that the risk may even be greater for homosexual men than homosexual women. It has also been suggested that being part of a sexual minority may play a role in the development of NSSI (Wester & Trepal, 2017). Lacking a sense of belonging may be a major factor for these individuals. However, as with ethnic differences, further research would help to provide insight into this.

## **Chapter One: What is known so far about Non-Suicidal Self-Injury**

NSSI is an important public health issue in New Zealand and throughout the world that desperately needs addressing (Hamza, Stewart, & Willoughby, 2012; Nada-Raja, Morrison, & Skegg, 2003; Thabrew et al., 2018; Wester & Trepal, 2017). No individual is protected from the effects of self-injury. The term 'self-injury' tends to cause many strong reactions from professionals and the general population as it is difficult to understand why an individual would injure themselves on purpose (Whisenhunt & Kress, 2013). NSSI is described as a behaviour resistant to treatment efforts (Zila & Kiselica, 2001) and despite the intention often not being to commit suicide, self-injury can result in death (Owens, Horrocks, & House, 2002).

In recent years, NSSI has gained increased attention from researchers and clinicians concerned about the psychological and physiological impact NSSI has on adolescents and young adults (Bureau et al., 2010). Despite this, there is still a critical need for effective low-threshold evidence based mental health promoting programmes (Van der Gucht, Kuppens, Maex, & Raes, 2016; Zubrick et al., 2016). Timson Priest, and Clark-Carter (2012) found that up to half of the adolescents in the United Kingdom received no formal therapeutic intervention following presentation to emergency departments following an episode of self-harm. Further highlighting the need to provide suitable interventions for adolescents, even in a hospital environment. There are mixed findings as to whether rates of NSSI are increasing, stabilising, or we are just becoming more aware of the behaviour, due in part to the influence of the media (Muehlenkamp et al., 2012; Rowe et al., 2014). Regardless, NSSI is a major issue worldwide.

### **Risk Factors**

Research is continuing to identify risk factors for NSSI to develop effective prevention and early intervention techniques (Swannell et al., 2012). Existing psychological disorders, childhood abuse or neglect, emotional distress, typical adolescent stressors, and social contagion are all recognised as potential risk factors. It is believed that a combination of these factors can contribute to the development of NSSI (Brown & Plener, 2017). Furthermore, the risk of someone engaging in NSSI increases when multiple risk factors are present (Slee et al., 2008). Understanding which risk factors are relevant in an individual's life who presents with NSSI can guide which interventions and techniques a clinician uses to help that individual.

### **Psychological disorders.**

The presence of a psychological disorder, most often depression or anxiety, has the largest association with self-harm prevalence (Johnstone et al., 2016; Mi Young & Jungok, 2017; Zubrick et al., 2016). Williams and Hasking (2010) suggest that psychological distress may lead to internal distress, and NSSI may be used to cope with the internal distress in those who have poor emotion regulation strategies. Targeting the psychological disorder itself may help reduce NSSI behaviour.

### **Childhood trauma.**

Childhood abuse or neglect, including sexual, physical, and emotional abuse, is often found to be experienced by those who engage in NSSI (Adler & Adler, 2011; Briere & Gil, 1998; Brown & Plener, 2017; Skegg, 2005). However, many do not have a history of being maltreated (Briere & Gil, 1998; Van Vliet & Kalnins, 2011). The relationship between childhood abuse and NSSI may not be linear. It is suggested that it may be the family environment where abusive neglectful experiences occur that increase the likelihood of future self-harm, rather than the abuse alone (Bureau et al., 2010). Gonzales and Bergstrom (2013) further suggest that early traumatic experiences may influence an individual's ability to effectively regulate their emotions, which in turn, leads to the engagement of NSSI. Having an invalidating environment during childhood (e.g., inadequate parenting) can also contribute towards the development of self-harming behaviours (Linehan, 1993). Furthermore, different types of invalidating environments have been found to impact individuals differently, for example Johnstone and colleagues (2016) found that those who experienced low maternal care were significantly more likely to have attempted suicide, whereas those who experienced low paternal care were significantly more likely to engage in NSSI. An insecure attachment to a primary caregiver is also found to be a factor for those who engage in NSSI (Favazza & Conterio, 1989; Gratz, Conrad, & Roemer, 2002). Jiang, You, Zheng, and Lin (2017) suggest that improving the quality of attachment with significant others, while enhancing self-compassion in the individual may be helpful for prevention and intervention of NSSI.

### **Emotional distress.**

It is widely agreed that those who cut, burn, or in other ways injure themselves, do it because they are in some sort of emotional distress (Adler & Adler, 2011). Klonsky and Muehlenkamp (2007) suggest that individuals who are high in negative emotionality and self-derogation are at a heightened risk for NSSI. NSSI is thought to be caused by cognitive biases (Adler & Adler, 2011). Hopelessness, helplessness, being unlovable, and having low self-esteem are all cognitions reported by individuals who engage in NSSI (Slee et al., 2008). In addition to self-compassion, a focus on targeting cognitive biases and the development of adaptive ways to regulate emotions are also important to consider in intervention strategies.

### **Adolescent stress.**

It has been suggested that typical adolescent stress can trigger self-harm in an already vulnerable person, for example an adverse life event or a relationship breakdown (Adler & Adler, 2011; Skegg, 2005). Adolescence is described as a transitional stage where changes in the development of emotional and behavioural regulation occur (Van der Gucht et al., 2016). Brain regions are particularly plastic during adolescence and are highly vulnerable to stress and negative life events (Andersen & Teicher, 2008). Brunstein Klomek and colleagues (2016) conducted a large study of adolescents from 11 countries and found bullying to be highly associated with NSSI. Learning what is happening in other areas of the individual's life (e.g., being bullied) can also help guide interventions.

### **Social influence.**

NSSI is often considered a socially influenced behaviour (Selekman, 2009). Wester and Trepal (2017) explain that NSSI began to appear in the media from the early 1990s which correlated with an increase in NSSI behaviour. Several celebrities have discussed their own use of self-harm (e.g., Angeline Jolie, Demi Lovato, Lindsay Lohan, Fiona Apple, & Johnny Depp), which may have resulted in individuals wanting to experience the effects also (Wester & Trepal, 2017). It is suggested that an individual's original engagement in NSSI might be highly influenced by social contagion, however the continued engagement, the maintenance, is likely related to intrapersonal functions which develop over time (Brown & Plener, 2017). Chan and colleagues (2018) found that exposure to suicide attempts of friends and family members, combined with a low mood, can impact on suicide attempts and repeated NSSI in New Zealand high school students. Considering the social nature of NSSI is important, as what others are doing in an individual's environment can greatly impact that individual.

## **How Non-Suicidal Self-Injury is Viewed by Others**

### **Health professionals' view of non-suicidal self-injury.**

NSSI was initially regarded as shocking, disgusting, and dangerous; it was then understood as something individuals who were troubled engaged in; it is now beginning to be understood as an 'inarticulate and underappreciated' cry for help (Adler & Adler, 2011). Despite the societal shift away from assuming those who engage in NSSI are suicidal or mentally ill, there is still a great deal more to be done (Adler & Adler, 2011; Briere & Gil, 1998). Those who work with young people often encounter NSSI behaviour (Van Vliet & Kalnins, 2011). Research indicates that most of these professionals feel like they do not have adequate resources to effectively help individuals presenting with NSSI (Flaherty, 2018; Kool, van Meijel, Koekkoek, van der Bijl, & Kerkhof, 2014; Selekman, 2009). NSSI can seem irrational to these health professionals as it is someone intentionally hurting themselves without the ultimate goal of suicide (Briere & Gil, 1998).

Kool and colleagues (2014) suggest that it is the differing perspectives of self-harm that results in a struggle between clients and health professionals, making communication about the underlying problems and feelings of the behaviour difficult. To help combat this, a programme was developed to train mental health professionals in how to communicate effectively with and care for clients who engage in NSSI (Kool et al., 2014). An important aspect of this programme was the use of 'lay experts' (people who currently harm themselves or have harmed themselves in the past) to disseminate their knowledge and experience (Kool et al., 2014). Kool and colleagues (2014) found that only 4% of the mental health professionals that participated in their study had received prior training in the field of self-harm. In addition to highlighting the potential utility of lay experts, these findings indicate a desperate need for professionals, who may work with a self-harming young person, to have access to training and information about targeting NSSI.

When young people who self-harm were asked about their experiences of mental health care, responses were generally negative (Taylor, Hawton, Fortune, & Kapur, 2009). They perceived a lack of knowledge and negative attitudes among staff. Participants also felt that they were unable to contribute towards the decision making of their own treatment resulting in participants feeling misunderstood and frustrated, sometimes leading to further self-harming behaviour (Taylor et al., 2009). Wester and Trepal (2017) explain that many young people may hide their NSSI from health professionals, and professionals need to be aware of the lack of NSSI disclosure and prioritize increasing the individuals desire to report their NSSI. School counsellors are increasingly being called on to address NSSI behaviour (Stargell, Zoldan, Kress, Walker-Andrews & Whisenhunt, 2018). Despite a need to address NSSI in schools, very few school counselling programmes have a self-injury policy in place. In contrast, almost all school counselling programmes having policies in place for suicide attempts, abuse, sexual harassment, and alcohol use (Roberts-Dobie & Donatelle, 2007). Stargell and colleagues (2018) stress that a school self-injury protocol must be well-tailored to help each student receive the individualised, ethical support they need.

A strong therapeutic relationship between the health professional and the client is crucial (Bureau et al., 2010; Klonsky & Muehlenkamp, 2007; Kool, van Meijel, & Bosman, 2009; Tan, Rehfuss, Suarez, & Parks-Savage, 2014; Wester & Trepal, 2017). Understanding the behaviour from the client's perspective is suggested as the most effective approach to working with an individual who engages in NSSI (Klonsky & Muehlenkamp, 2007). A strong therapeutic relationship must be in place before an individual will feel comfortable sharing intimate information about their NSSI (Wester & Trepal, 2017). How the health professional reacts to disclosure of NSSI can have a major impact on treatment outcomes (Brown & Plener, 2017; Sprague, 1997). Negative reactions or emotions (i.e., disgust, fear, horror, anger) towards NSSI behaviour should not be displayed (Brown & Plener, 2017). Wester and Trepal (2017) suggest that health professionals often feel these negative emotions as they lack knowledge about NSSI.



### **Peer and family view of non-suicidal self-injury.**

Confusion and misunderstanding still surrounds NSSI in the media and among the general population (Hollander, 2008). Despite NSSI greatly impacting peers and family members of those who engage in NSSI, limited health promotions that support these people are available. Less social support from friends and family has been reported by those who engage in self-harm (Rotolone & Martin, 2012). This isolation is made more acute as many individuals do not seek help for their behaviour (Evans et al., 2005; Fortune, Sinclair, & Hawton, 2008; Rowe et al., 2014). When individuals do seek help, it is most often from informal sources (Idenfors, Kullgren, & Renberg, 2015; Rowe et al., 2014; Wester, Clemens, & McKibben, 2015). Research suggests that parents of those who engage in NSSI are also deeply affected (Byrne et al., 2008). Feelings of shame, guilt, helplessness, and concerns about their ability to cope as a parent are a few examples (McDonald, O'Brien, & Jackson, 2007; Raphael, Clarke, & Kumar, 2006). Fisher, Fitzgerald, and Tuffin (2017) suggest that individuals may engage in NSSI secretly, in part, to protect their parents from these experiences.

Fisher and colleagues (2017) explored how peers who are placed into the role of 'supporter' to a person engaging in NSSI cope with this role and how it affects their relationship with the person. Despite peers likely being the most informed about their friends' self-harming behaviour, very little research has explored this role. Fisher and colleagues (2017) found that participants believed some engage in NSSI for attention seeking purposes as opposed to experiencing genuine distress. If it was seen as attention seeking, they were less inclined to offer support. Participants were also more likely to offer support to those who showed less serious forms of NSSI (Fisher et al., 2017). A range of negative outcomes were found as a result of providing support to those who engage in NSSI, these include worry, sadness, panic attacks, stress, and sleepless nights, highlighting the importance of having support systems in place for the supporter. Health promotion initiatives and interventions that target friends and family members of the person engaging in the behaviour, may be effective as they are in a good position to influence the individual (Rowe et al., 2014).

### **Where Non-Suicidal Self-Injury Fits into Mental Health**

#### **Non-suicidal self-injury as a diagnosis.**

NSSI is not currently a mental health disorder, however it now features in the DSM-5 as an area that requires further research (APA, 2013). This inclusion has led to an increase in studies of NSSI in recent years (Perez Rodriguez, Marco Salvador, & Garcia-Alandete, 2017). Prior to this, NSSI primarily featured as a symptom of BPD, substance use disorders, conduct disorder, and depression (Bresin & Schoenleber, 2015; Flaherty, 2018; Garisch et al., 2017). However, as many individuals who engage in NSSI do not meet the diagnostic criteria for one of these disorders, it has been suggested that NSSI should be recognised as a separate disorder (Adler & Adler, 2011). Many features distinguish NSSI from suicidal behaviour and other mental health disorders (Muehlenkamp,

2005). Adler and Alder (2011) suggest that if NSSI was a clinical diagnosis, it should be positioned within the impulse control disorders category of the DSM.

There are arguments both for and against NSSI being a clinical diagnosis (Muehlenkamp, 2005). A clinical diagnosis would provide a formal description of the behaviour, which would result in an increased quality of research being conducted (Muehlenkamp, 2005). Mental health professionals use diagnoses to understand and help individuals presenting with behaviours and symptoms. The DSM-5 (APA, 2013) and the ICD-10 codes (World Health Organization, 2004) are the main tools that mental health professionals use to form a diagnosis. As NSSI is a complex behaviour, accurate diagnosis is an important step towards finding suitable treatment (Wester & Trepal, 2017). Despite NSSI now featuring as an area for further research in the DSM-5 (APA, 2013), there are no tools or direction for clinicians to classify the behaviour. NSSI has a prominent symptom pattern and a relatively clear presentation of biological and associated features (e.g., age of onset, precipitating factors, course of behaviour), which would be useful to follow as part of diagnosis, should NSSI become a clinical disorder (Muehlenkamp, 2005). A lack of good empirical research has been cited as a reason NSSI should not become a clinical diagnosis (Muehlenkamp, 2005). There is also the potentially negative impact that receiving a diagnosis can have on an individual, especially if for them it is just a stage they are going through. Care would need to be taken if individuals were to be diagnosed with an NSSI disorder, to make sure they are not being stigmatised. There are potentially positive and negative outcomes if NSSI were to become a clinical disorder. What is agreed on, is that more quality research is required, as is recommended in the DSM-5 (APA, 2013).

#### **Non-suicidal self-injury and other disorders.**

Early research on NSSI found it to be present in individuals with BPD (Linehan, 1993). Because of this, many interventions have been focused around BPD in general as opposed to specific interventions to target NSSI. It is unclear if intensive treatments like dialectical behaviour therapy (DBT) are suitable for adolescents with NSSI who do not have a personality disorder (Washburn et al., 2012). BPD cannot be diagnosed in individuals under 18 years of age resulting in most of research being conducted on adult populations (Flaherty, 2018).

Approximately one-fifth of all adolescents around the world experience mental health problems, most often depression and anxiety (Van der Gucht, Kuppens, Maex, & Raes, 2016). Research further suggests that many adolescents with mental health disorders also engage in NSSI (DiClemente et al., 1991; Nock & Prinstein, 2004; Zlotnick, Mattia, & Zimmerman, 1999). For example, Perez Rodriguez and colleagues (2017) found that 65% of their participants with varying psychological disorders, had engaged in NSSI in the past 12 months. Indicating the potential reach of NSSI worldwide. NSSI and psychological disorders have been found to be major risk factors for the other, highlighting the close and reciprocal relationship between them (Klonsky & Muehlenkamp, 2007; Slee et al., 2008). Those who self-harm are six to ten times more likely to have schizophrenia,

bipolar disorder, an eating disorder, or a substance use disorder (Kessler, McGonagle, & Zhao, 1994; McLennan, 1998). Despite this close relationship, many who engage in NSSI do not have a psychological disorder (Klonsky & Muehlenkamp, 2007).

### **Non-suicidal self-injury and suicide.**

For many years NSSI was considered a form of suicidality (Menninger, 1935), and still is for many people (Adler & Adler, 2011). Debate now exists whether NSSI and suicidal behaviour are distinct concepts or more extreme versions of the same construct (Kapur, Cooper, O'Connor, & Hawton, 2013; Muehlenkamp & Kerr, 2010; Stanley, Winchell, Molcho, Simeon, & Stanley, 1992). It is suggested that suicide is at the most severe point of the continuum and NSSI may act as a gateway to suicidal behaviour (Cloutier et al., 2010; Hamza et al., 2012). Both NSSI and suicidal behaviour are acts of intentionally causing bodily harm to oneself (Stanley, Gameroff, Michalsen, & Mann, 2001). Hamza and colleagues (2012) suggest that the link between NSSI and suicidal behaviour is moderated by an individual's level of intrapersonal distress. Perez Rodriguez and colleagues (2017) recently conducted a study looking at hopelessness and meaning in life in individuals with a history of NSSI and suicidal behaviour. Higher levels of hopelessness were found in the group that had attempted suicide, suggesting that those who attempt suicide have lost all hope, however those who engage in NSSI still seem to feel some form of hope. Perez Rodriguez and colleagues (2017) propose that meaning in life underlies the continuum of self-harm.

There are several major factors which differentiate NSSI from suicidal behaviour, the primary difference between NSSI and suicidal self-injury, is that those who engage in NSSI do not wish to end their life (Hamza et al., 2012; Muehlenkamp, 2005; Nock, 2010). Early identification of those at risk of NSSI is particularly important as research suggests that the more times an individual engages in NSSI, the more likely they are to engage in the behaviour in the future, and are subsequently at a much higher risk for suicide attempts (Asarnow et al., 2011; Nock et al., 2006; Whitlock et al., 2008; Zahl & Hawton, 2004). It is suggested that suicidal behaviour requires an 'acquired capability' which can be gained through repeated exposure to fear and pain-inducing experiences, for example repeated NSSI behaviour (Van Oren et al., 2010). Hamza and colleagues (2012) found NSSI to be a stronger predictor of suicidal behaviour than depression, hopelessness, post-traumatic stress disorder, and a history of child abuse. Despite NSSI behaviour being quite different to suicidal behaviour, those who engage in NSSI have a much greater risk of dying by suicide than the general population. NSSI is often mistaken for a suicide attempt, which can result in providing inappropriate and expensive treatment to the individual (Wester & Trepal, 2017). Suicide is a leading cause of death in the Western world (Hawton et al., 2012), the New Zealand suicide rate is one of the highest among OECD countries (19.3 per 100,000 young people, or 36.4 among 100,000 Māori young people; Ministry of Health, 2014). According to Ougrin, Tranah, Stahl, and Moran (2015), despite recent advances in

understanding and treating self-harm, there has been no substantial reduction in death by suicide over the past 60 years. Highlighting just how major an issue self-harming behaviour is.

### **Motivations of Non-Suicidal Self-Injury**

NSSI was originally thought of as a behaviour engaged in by individuals who felt negatively towards their bodies, it is now understood that many individuals engage in NSSI as it serves a regulatory purpose for them (Briere & Gil, 1998; Wester & Trepal, 2017). NSSI is a creative, temporarily successful coping strategy, however this method is maladaptive long term, as individuals do not develop healthier ways to cope, like an addictive behaviour, which can cause more stress and problems long term (Adler & Adler, 2011; Wester & Trepal, 2017). Selekman (2009) describes it as individuals doing all the wrong things for all the right reasons. Individuals engage in NSSI for a variety of reasons (Edmondson, Brennan & House, 2016). NSSI can serve multiple purposes for an individual, often simultaneously (Lloyd-Richardson et al., 2007; Van Vliet & Kalnins, 2011). One of the major barriers to providing effective interventions to individuals who engage in NSSI is the lack of a clear understanding of the functions that NSSI serves (Edmondson et al., 2016). Understanding these functions will allow clinicians to tailor their interventions to the individual (Klonsky & Muehlenkamp, 2007; Tan et al., 2014). Edmondson and colleagues (2016) propose a complimentary approach, where the health professional accepts that there are functions that NSSI serves for the individual, and work with them to find alternative strategies that help the individual achieve the same goal (Edmondson et al., 2016). The reasons individuals engage in NSSI are typically grouped into intrapersonal and interpersonal functions (Jiang et al., 2017; Klonsky, 2007).

#### **Intrapersonal functions.**

Common intrapersonal functions include emotion regulation, self-punishment, anti-suicide, to gain control over themselves, decrease dissociation, and for thrill or sensation seeking purposes (Favazza & Conterio, 1989; Klonsky, 2007).

#### ***Emotion regulation.***

The most frequently recognised function of NSSI is emotion regulation (Briere & Gil, 1998; Brown & Plener, 2017; Edmondson et al., 2016). Adolescents describe using NSSI to get quick relief from emotional pain (Fisher et al., 2017; Gratz, 2003; Mi Young & Jungok, 2017). NSSI is used to release pent-up emotions, to manage stress and depression, to reduce tension and release anger (Briere & Gil, 1998; Favazza, 1998; Klonsky & Muehlenkamp, 2007; Van Vliet & Kalnins, 2011). The immediate relief gained from engaging in NSSI can last for a day, or for some individuals up to several weeks (Adler & Adler, 2011). Despite the positive relief gained from NSSI, if the behaviour continues it can lead to many negative outcomes (Bresin & Schoenleber, 2015). NSSI can decrease an

individual's sensitivity to pain, which in turn could put them at a higher risk for suicidal behaviours (Paul et al., 2015).

It is still unknown exactly how NSSI minimises negative emotions, however psychological and biological mechanisms have been suggested (Klonsky, 2007; Klonsky & Muehlenkamp, 2007). Emotions like anger, anxiety, and frustration are often found to be present prior to NSSI, and feelings of relief and calmness are found to be present following NSSI (Klonsky & Muehlenkamp, 2007). It has been suggested that individuals who engage in NSSI often lack the knowledge or ability to regulate their emotions in a healthy or socially acceptable way, particularly intense emotions (Gonzales & Bergstrom, 2013; Linehan, 1993). Klonsky and Muehlenkamp (2007) suggest that those who engage in NSSI, experience more intense and frequent negative emotions in their daily lives, than those who do not self-injure. Linehan (1993) explains that early invalidating environments teach poor strategies for coping with emotional distress, and individuals from these environments with biological dispositions for emotional instability are less able to manage their emotions and are therefore more likely to use NSSI as an emotion-regulation strategy. Several interventions explored for use with NSSI are based on emotion regulation (e.g., emotion regulation group therapy [ERGT]).

#### ***Self-punishment.***

Self-punishment is also frequently recognised as a function of NSSI (Edmondson et al., 2016; Klonsky, 2007). Feelings of shame can lead to self-criticism or self-depreciation, which can lead to individuals evaluating themselves as bad or immoral (Garisch et al., 2017). According to Klonsky and Muehlenkamp (2007), when explaining why they engaged in NSSI, individuals cited reasons like 'to express anger at myself' and to 'punish myself.' Van Vliet and colleagues (2011) suggest that individuals may punish themselves due to perceived defects or to 'cut the bad' out of oneself. Self-punishment has been found to be more commonly endorsed by females than males (Adler & Adler, 2011). Interventions that increase self-compassion may be suitable for individuals who engage in NSSI to punish themselves (e.g., compassion focus therapy [CFT]).

#### ***Gain control.***

It is suggested that individuals use NSSI to pre-empt punishment from others, creating a sense of control over themselves (Padoa, 2008; Selekman, 2009; Van Vliet & Kalnins, 2011). Lloyd-Richardson and colleagues (2007) found that a third of individuals engaged in NSSI to gain control of their situation. NSSI is often described as a way of turning unbearable emotional pain, into manageable physical pain (Adler & Adler, 2011).

#### ***Anti-suicide.***

NSSI can be used as a coping mechanism for resisting urges to attempt suicide (Garisch et al., 2017; Klonsky, 2007; Menninger, 1938; Wester & Trepal, 2017). It may be used to express suicidal thoughts without risking death, it can serve as a compromise for an individual who has the desire to

commit suicide (Klonsky, 2007). Individuals who engage in NSSI explained they did it ‘to prevent me from acting on suicidal feelings’ and ‘to stop suicidal ideation or attempts’ (Klonsky & Muehlenkamp, 2007).

### ***Decrease dissociation.***

NSSI has also been used to decrease post-traumatic symptoms, particularly feelings of dissociation (Briere & Gil, 1998; Klonsky, 2007; Klonsky & Muehlenkamp, 2007; Selekman, 2009). It is suggested that some people react to trauma or difficult experiences in their life through dissociation (Adler & Adler, 2011). Those who dissociate often describe feeling nothing or feeling unreal (Klonsky & Muehlenkamp, 2007). Klonsky (2007) suggests that NSSI may be a way to generate physical sensations that allow the individual to feel real again. Tension-reduction activities can provide relief from dissociation by grounding the individual, NSSI causes the individual to focus on the physical pain caused by the behaviour, thus pulling them out of the dissociative experience (Briere & Gil, 1998; Klonsky, 2007).

### ***Sensation-seeking.***

Less often cited, however evidence also suggests that individuals engage in NSSI for sensation seeking reasons (Edmondson et al., 2016; Klonsky, 2007; Klonsky & Muehlenkamp, 2007). Adler and Adler (2011) explain that NSSI can lead to feelings of euphoria. ‘It is my drug’ is one reason given by individuals who engage in NSSI (Selekman, 2009). Selekman (2009) suggests that most individuals who self-harm fall into two categories, pleasure seekers or thrill seekers. Pleasure seekers are more common, and most pleasure seekers are trying to make themselves feel better in whatever way they can, this may be through cutting themselves, taking alcohol or drugs, or overeating (Selekman, 2009). In contrast, thrill seekers more often tend to be young males, who get a ‘rush’ from engaging in risky behaviours by placing themselves in dangerous situations to do harm to their body. Thrill seekers may feel emotionally dead, and daredevil behaviours are used to feel alive (Selekman, 2009). NSSI can be used to generate excitement or exhilaration in a manner like sky-diving or bungee jumping (Briere & Gil, 1998; Klonsky, 2007).

### ***Interpersonal functions.***

Interpersonal functions include interpersonal influence, to seek attention from others, to get a reaction, to show others that they need help, and to assert personal boundaries (Hollander, 2008; Klonsky, 2007; Rodham, Hawton, & Evans, 2004; Selekman, 2009).

### ***Interpersonal-influence.***

Interpersonal-influence is a widely researched function of NSSI (Edmondson et al., 2016). It is often assumed that most people engage in NSSI for interpersonal-influence. However, Hollander (2008) suggests that less than 4% of adolescents engage in NSSI to get attention. In other research,

rates of participants engaging in NSSI for interpersonal influence range between 30 and 50%, possibly due to the participants accessed in the research being more open about their behaviour (Lloyd-Richardson et al., 2007; Tan et al., 2014). It is suggested that individuals develop difficulties coping and communicating through family conflict, abuse, or neglect. As a result, poor communication skills can lead to NSSI being used as a cry for help (Nock & Prinstein, 2004). NSSI may also be used to avoid being abandoned, or an attempt to be taken more seriously (Klonsky, 2007). Reasons given by adolescents related to interpersonal influence include, 'to control or hurt others,' 'to convince others you need help,' and 'to feel connected to friends' (Selekman, 2009). Klonsky (2007) explains that an individual who self-injures may not be aware of the reinforcement received by others' reactions to the behaviour, which could explain the varying prevalence rates for this function.

### ***Interpersonal boundaries.***

Like interpersonal-influence, NSSI has also been used to assert interpersonal boundaries (Edmondson et al., 2016; Klonsky, 2007; Klonsky & Muehlenkamp, 2013). Self-injurers are thought to lack a normal sense of self, due to insecure maternal attachments and an inability to individuate from the mother. Marking the skin is thought to affirm a distinction between oneself and others and assert one's identity (Klonsky, 2007).

### **Negative Factors Associated with Non-Suicidal Self-Injury**

NSSI has been associated with a range of negative outcomes. For example, those who engage in NSSI are at a greater risk to die through suicide and may have lasting physical injuries or scarring and infection (Andover et al., 2017; Bresin & Schoenleber, 2015). Feelings of shame, guilt, and social isolation have also been found to be associated with NSSI (Gratz, 2003). Mars and colleagues (2014) investigated the outcomes of adolescents in the general population with a history of self-harm. They used data from the Avon Longitudinal Study of Parents and Children conducted in the United Kingdom. Main outcome measures included depression and anxiety, substance use, educational attainment, and occupational outcomes. Mars and colleagues (2014) found that participants who self-harmed (with or without suicidal intent) were at risk of future self-harm, developing depression and anxiety, and substance misuse. These associations were stronger for participants who had a history of suicidal self-harm as opposed to NSSI. These findings highlight the importance of early identification and treatment of adolescents who engage in self-harm, both with suicidal intent and NSSI. They suggest that interventions focused on reducing self-harm should also target treating or preventing these other problems. These findings support the importance of understanding other factors present for the individual who presents with self-harm, and the importance of early intervention and prevention.

## **Reasons Individuals do not Seek Help**

A body of evidence has been growing to suggest that only a minority of young people who engage in self-harm or experience suicidal thoughts present to a health service (Kool et al., 2014; Michelmores & Hindley, 2012; Rowe et al., 2014). However, many of those who do reach out for help, most often reach out to peers (Michelmores & Hindley, 2012). Rickwood, Deane, Wilson, and Ciarrochi (2005) suggest that young people turn to friends and family members as they are trusted relationships. Interventions that are targeted at friends and family members may influence help seeking behaviour in young people (Rowe et al., 2014). However, there is an issue if the friends and family are contributing to the young person's NSSI behaviour.

Michelmores and Hindley (2012) found that many young people do not seek professional help due to perceived criticism and judgement towards the individual engaging in self-harm. Further reasons include existing guilt about the behaviour, previous negative reactions from others, fear that NSSI will be confused for suicidal behaviour, fear that they will lose the choice to engage in NSSI, and a fear that they will be labelled as 'attention seeking' (Rowe et al., 2014; Wester & Trepal, 2017). Swannell and colleagues (2014) explain that NSSI is a highly stigmatised behaviour, and they suggest that young people who engage in it are motivated to downplay their behaviour to avoid the negative consequences as a result of being detected. Another concern, is that those who do present to services, will not complete treatment. Ougrin and Latif (2011) found that around half of young people only attended four or fewer follow-up sessions. Rowe and colleagues (2014) explain that no intervention has been found to increase help-seeking behaviour in young people who self-harm.

Idenfors and colleagues (2015) suggest that new strategies are required to increase help seeking behaviour in young people experiencing mental distress. Idenfors and colleagues (2015) conducted interviews with 10 young people shortly after they had harmed themselves. The young people said they needed more knowledge about where to turn for help, they emphasized the need to have different help-seeking options and the need to receive immediate help. Idenfors and colleagues (2015) also found that family and friends were important as informal sources of help, and important for making health care contact. They also found that the quality of the professional contact was important as opposed to a specific profession. Idenfors and colleagues (2015) suggest that a gatekeeper system could help, gatekeepers could refer students in need of help to the appropriate health service.

Wester and colleagues (2015) explored the characteristics of support networks of those who engage in self-harm. They found that just almost a quarter of participants reported never seeking any form of support for NSSI. The majority of participants reported a smaller social network than what is considered typical. Friends were found to be in the support network more than any other individuals, and therefore are the most common people the participants turned to for help (Wester et al., 2015). Despite the participants describing friends as being relatively helpful, Wester and colleagues (2015)



found that having a friend in the support network was associated with higher rates of lifetime methods used to engage in NSSI. They suggest that education about NSSI may help friends in the support network to guide individuals to professional services to decrease NSSI behaviour (Wester et al., 2015).

## **Stopping Non-Suicidal Self-Injury Behaviour**

### **Lack of evidence-based interventions.**

Interest in NSSI has been increasing over the past 40 years, Favazza (1998) attributes this partly to an increase in the media's attention to the behaviour. NSSI has only recently started to be explored as more than just a symptom of BPD or suicide (Muehlenkamp, 2005), and literature on effective interventions targeting NSSI specifically is still emerging (Bureau et al., 2010; Turner et al., 2014). Mental health professionals are increasingly being required to treat young people who present with NSSI behaviours, however there are still very few empirically supported treatments or guidelines for professionals to assist with helping these young people (Brown & Plener, 2017; Flaherty, 2018; Stargell et al., 2018; Wester & Trepal, 2017). Much of early research on NSSI was limited by small sample sizes, high dropout rates, differing definitions (e.g., NSSI specifically or self-harm in general), and samples that had other variables, for example individuals diagnosed with BPD (Muehlenkamp, 2005; Slee et al., 2008; Turner et al., 2014). Heterogenous presentations and a broad range of functions that underlie NSSI are also thought to limit the development of effective interventions (Taylor et al., 2018). Very few interventions have been designed specifically to target adolescents who engage in NSSI (Washburn et al., 2012). Furthermore, interventions that are effective for adults may not necessarily be effective for adolescents (Robinson et al., 2011). Interventions for adolescents need to cater to their unique needs, as many adolescents are non-compliant with treatment or will drop out early (Mehlum et al., 2014). There is currently no universally agreed on best practice for treating NSSI (Flaherty, 2018; Gonzales & Bergstrom, 2013; Green et al., 2011; Turner et al., 2014). However, evidence suggests that psychological therapy can make a significant improvement (Moran, Pathak, & Sharma, 2009). Researchers agree that there needs to be a focus on testing interventions with large scale randomised control trials (RCT) to address existing methodological shortfalls (Robinson et al., 2011).

### **Factors that have been found to influence change.**

NSSI is a perplexing set of behaviours considered difficult to treat (Andover et al., 2017; Rotolone & Martin, 2012). Furthermore, those who engage in NSSI are highly heterogeneous, making a standardised intervention for NSSI difficult (Muehlenkamp, 2006; Swannell et al., 2012). Treatment needs to be flexible enough to be tailored to the individual needs of the client, but also be based on standardised interventions that have shown to be effective with treating specific aspects of NSSI (Muehlenkamp, 2006). A strong empathic and collaborative working alliance is crucial, it is suggested

that without a strong therapeutic relationship, treatment is likely to be less successful (Muehlenkamp, 2006). It may be a challenge to form a strong alliance with the client, as many individuals who engage in NSSI have experienced loss and rejection in the past, and have difficulty forming trusting relationships (Muehlenkamp, 2006). Validation, a non-judgemental stance, and radical genuineness are all strategies useful for forming a therapeutic relationship with the client (Garisch et al., 2017). Furthermore Muehlenkamp (2006) suggests that forming a strong therapeutic relationship with the client may be an effective intervention in itself. A lack of social connectedness has also been suggested as playing a role in NSSI behaviour. Rotolone and Martin (2012) found that those with a history of NSSI (current and past) reported lower levels of perceived social support, social connectedness, resilience, self-esteem, and life satisfaction. It is suggested that prevention and intervention techniques target increasing these factors in adolescents and young adults. In addition to a strong therapeutic relationship, interventions that have a focus on emotion regulation, functional assessment, motivation for change, cognitive restructuring, and problem solving are found to be the most effective in targeting NSSI (Farmer & Chapman, 2016; Garisch et al., 2017; Klonsky & Muehlenkamp, 2007; Turner et al., 2014; Wester & Trepal, 2017). Brown and Plener (2017) further suggest that psychoeducation and identification of factors which trigger and maintain NSSI are also important. Potential intervention areas that could prove useful to explore include the use of physical exercise in an intervention targeting NSSI (Bosman & van Meijel, 2008), and a focus on protective factors in addition to risk factors (Jiang et al., 2017).

When exploring reasons individuals themselves gave to why they no longer engaged in NSSI, Kool, van Meijel, and Bosman (2009) found that participants understood their recovery in six steps. Connecting and setting limits for safety, developing self-esteem, discovering why NSSI behaviour started to occur and what role it served for them, realizing there is a choice to injure or not, replacing NSSI with other coping skills, and finally a maintenance phase (Kool et al., 2009). A therapeutic connection was found to be a key aspect to stopping (Kool et al., 2009).

#### **Assessing the function non-suicidal self-injury serves.**

An important part of helping an individual with their NSSI is understanding how their behaviour benefits them. Interventions that are directed at specific functions are suggested as being particularly helpful (Garisch et al., 2017; Nock & Prinstein, 2004; Van Vliet & Kalnins, 2011). For example, many theoretical models of NSSI focus on emotion regulation or avoidance as the functions of NSSI, however they are not necessarily suitable for individuals where the dominant driver is for self-punishment or to communicate distress (Taylor et al., 2018).

#### **Available Interventions for Non-Suicidal Self-Injury**

There are a range of interventions currently available that have been explored with NSSI behaviour. Despite this, very few interventions have had substantial research to conclude their efficacy

for targeting adolescents who engage in NSSI. Below is a summary of available interventions, including interventions designed specifically for NSSI, cognitive-behavioural based therapies, mindfulness-based therapies, group therapies, and family-based therapies.

### **Interventions designed specifically for non-suicidal self-injury.**

#### ***Alternative to self-harm.***

The alternative to self-harm (ASH) programme was developed in New Zealand to target individuals who engage in NSSI and are at risk of unintentional suicide (Clare, 2014). ASH is a 12-week group-based intervention that incorporates cognitive behaviour therapy (CBT), narrative, and art therapy (Clare, 2014). Clare (2014) hopes for ASH to be used as a peer-education initiative where counselling or psychology post graduate students are trained to facilitate the programme. ASH has 12 structured sessions that focus on skill development, narrative ideas (the person is not the problem), CBT ideas (i.e. emotional intensity continuum and problem-solving strategies), it uses art therapy, and has brief home tasks between sessions (Clare, 2014). According to Clare (2014), ASH is skills based, it involves a support team, and is low cost and clinically effective. Despite looking very promising, this programme is still in its development stage and the efficacy of the intervention has not yet been tested in a large-scale RCT.

#### ***Treatment for self-injurious behaviors.***

Treatment for self-injurious behaviors (T-SIB) is a specific to NSSI intervention developed by Andover, Schatten, Morris and Miller (2015). It is a short-term (9 session) outpatient therapy designed to reduce the frequency and severity of NSSI in young adults. T-SIB includes strategies to increase motivation, functional analysis of the behaviour, and skills training for problem solving, interpersonal skills, cognitive distortions, and distress tolerance (Wester & Trepal, 2017). T-SIB was developed as a standalone treatment or to be used in addition to other treatments (Andover et al., 2017). Andover and colleagues (2015) completed a pilot study with 12 participants over a three-month follow-up period. They found that NSSI behaviours and urges decreased by 50% in the nine-week programme. Medium to large effect sizes were found in relation to NSSI behaviours and urges with the participants in the pilot study (Andover et al., 2015). These gains were maintained over a three-month period. Other psychiatric symptoms showed less improvement, for example suicidal ideation, depression, anxiety, and BPD symptoms, suggesting that the intervention is targeting only NSSI behaviour, not other symptoms (Andover et al., 2015). To build on the pilot study, Andover and colleagues (2017) conducted an RCT design with 33 young adults where T-SIB was compared with treatment as usual (TAU). Medium effects were found for decreased NSSI frequency. Because of this larger RCT, Andover and colleagues (2017) suggest that the field would benefit from a brief intervention designed, like T-SIB, to specifically target NSSI behaviour, outside of the context of other disorders (e.g., BPD & suicidality), that can be administered without intensive training for clinicians. The 2015 pilot study

combined with the most recent 2017 RCT provides evidence to conduct a larger scale RCT that is adequately powered to detect significant differences between conditions (Andover et al., 2017). Like with ASH, there are not yet large clinical trials published to establish the efficacy of T-SIB, however preliminary findings have been positive.

### ***Visual arts.***

An avenue that would benefit from research, is the use of visual arts, for example drawing, painting, making a collage or making objects out of materials. Milia (2000) suggests that art may provide a less-threatening alternative means of communication and disclosure for those with a trauma history. Ahmed and Siddiqi (2006) explored the use of art with trauma survivors and found art can provide a way for individuals to communicate and express themselves in a way that is non-threatening for them, even setting up an environment for emotional healing. Kress and colleagues (2008) suggest that the art helps clients to see their problems as something separate from themselves, so instead of feeling like they are fighting themselves, they feel like they are fighting something else. This is a concept that requires additional research and development particularly for use with adolescents who engage in NSSI, however the idea does seem promising.

### **Cognitive-behavioural therapies.**

CBT has received the most research attention for reducing self-injury, this includes DBT, mentalisation based treatment for adolescents (MBT-A), compassion-focused therapy (CFT), acceptance and commitment therapy (ACT), problem solving therapy (PST), and manual-assisted CBT (MACT). Many of these interventions have commonalities, however each offer a unique way of delivering the programme. These interventions range from yearlong highly resource intensive to 6-week brief interventions. Research supports the efficacy of cognitive-behavioural therapy for reducing NSSI, although it is not yet known what the specific mechanisms of change are (Klonsky & Muehlenkamp, 2007). Ougrin and colleagues (2015) recently conducted a systematic review of available interventions that target suicide attempts and self-harm in young people. They found DBT-A (DBT for adolescents), CBT, and MBT-A to be effective in targeting NSSI in young people. They did not find one intervention to be superior to the others, this is possibly due to the number of published studies still being very small (Ougrin et al., 2015). Wester and Trepal (2017) suggest that the understanding of the impact of CBT on NSSI behaviour has been difficult as many of the studies that have been conducted, explore general self-harm behaviours (that include suicidal ideation) and participants who have been diagnosed with BPD.

### ***Dialectical behaviour therapy.***

DBT was developed by Linehan (1993) to treat individuals with BPD and was one of the first treatment strategies to specifically target self-harming behaviour (Wester & Trepal, 2017). DBT involves individual and group therapy (Linehan, 1993). DBT combines mindfulness, cognitive-

behavioural interventions, problem-solving, and skills training (Clare, 2014; Muehlenkamp, 2006; Wester & Trepal, 2017). The underlying principle of DBT is a balance between encouraging the client to both change and accept themselves (Muehlenkamp, 2006). Emotion regulation is widely recognised as a function of NSSI (Swannell et al., 2012). Linehan (1993) has created a module specifically for emotion regulation in DBT that addresses both dissociation and alexithymia. DBT is resource intensive and takes a lot of time and a great level of commitment from those receiving and giving the treatment (Andover et al., 2017). It is suggested that DBT in its original form is not suitable for many adolescents who self-harm due to the time commitment required (Martin et al., 2012). Despite findings being positive, most of the available research has explored DBT in the context of individuals diagnosed with BPD, which are typically females over 18 years of age (Andover et al., 2017; Turner et al., 2014). DBT has also been adapted for use with adolescents (DBT-A) by Rathus and Miller (2002). DBT-A is delivered through multiple modalities (like regular DBT), it includes individual therapy, family groups, and telephone consultations (Flaherty, 2018). DBT-A has shown promising results however the existing studies available have included measures of BPD like regular DBT has (Mehlum et al., 2014). Further research is also required to explore the suitability of DBT-A for use with NSSI specifically.

#### ***Mentalisation based treatment for adolescents.***

MBT-A is an intervention developed to improve self-control and emotion regulation by increasing both the individual and the family's ability to understand behaviours in terms of thoughts and feelings (Fonagy, 1998). MBT-A is a yearlong programme, that consists of weekly 50-minute individual sessions and monthly 50-minute family sessions (Flaherty, 2018). Rossouw and Fonagy (2012) examined whether MBT-A is more effective than TAU for young people who self-harm. Eighty adolescents with depression who self-harm, were assigned to either receive MBT-A or TAU. Self-harm, risk-taking, and mood were assessed every three months until the end of the 12-month treatment (Rossouw & Fonagy, 2012). Results found MBT-A to be more effective than TAU in reducing self-harm and depression. Recent systematic reviews have also found MBT-A to be an effective intervention. Ougrin and colleagues (2015) found MBT-A to be one of three effective interventions for NSSI, and Calati and Courtet (2016) found MBT-A to be the only effective psychotherapeutic intervention in their meta-analysis. Despite MBT-A showing promising results, it is time and resource intensive and relies on the client and family to continue engaging with the treatment.

#### ***Compassion-focused therapy.***

CFT is a form of CBT designed to help people with mental health problems related to shame and self-directed hostility (Van Vliet & Kalnins, 2011). The focus of CFT is to help people relate to themselves with greater compassion (Gilbert & Irons, 2005; Gilbert & Proctor, 2006). According to

Van Vliet and Kalnins (2011), a lack of self-compassion is considered an underlying function of NSSI. Through a variety of techniques used in CFT, those that self-injure become aware and tolerant of their moment-to-moment experiences and learn self-compassionate ways of soothing themselves in the face of emotional distress (Van Vliet & Kalnins, 2011). CFT is a relatively new therapy, and there is a need for more outcome research that looks at the use of CFT for NSSI behaviour (Van Vliet & Kalnins, 2011). However, researchers propose that CFT is a promising intervention for young people who engage in NSSI (Jiang, You, Zheng, & Lin, 2017). Taylor and colleagues (2018) further suggest that CFT is best suited as an intervention for those who engage in NSSI, where self-punishment is their primary motive.

#### ***Acceptance and commitment therapy.***

ACT was developed by Hayes (1982). ACT is based on the assumption that many psychological problems develop from an individual's attempt to avoid or escape unwanted emotions, thoughts, and bodily sensations (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996; Hayes, Strosahl, & Wilson, 2012). ACT employs a range of strategies to help clients understand the problem with avoiding or escaping unwanted experiences, to allow them to move forward in a direction where they do not have to regulate or modify their thoughts and feelings (Farmer & Chapman, 2016). Efficacy studies are still limited, however preliminary findings suggest that ACT could be an appropriate intervention for NSSI.

#### ***Problem solving therapy.***

PST was developed in the early 1970's by D'Zurilla and Goldfried (1971) during the growth of behaviour modification. PST is a brief intervention that is based on the premise that self-harm is engaged in due to a lack of adaptive coping skills (D'Zurilla & Nezu, 2010). The National Health Committee (2012) explored the efficacy of PST with adolescents who engage in self-harm, to see if PST could be a viable intervention to roll-out in New Zealand. Based on the available evidence, they concluded that PST may be an effective intervention when used in addition to TAU, when used specifically with individuals with repeated self-harming behaviour, however it did not appear to be more effective than TAU for everyone (National Health Committee, 2012). Suggesting that it may be a suitable choice for those who repeatedly engage in NSSI. PST has shown promising results, however, has limited research (Wester & Trepal, 2017).

#### ***Manual-assisted cognitive-behaviour therapy.***

MACT is a brief problem solving and cognitive behavioural intervention that takes 6 sessions. MACT teaches clients how to manage emotions and negative thinking, as well as increase problem solving skills (Klonsky & Muehlenkamp, 2007; Muehlenkamp, 2006; Wester & Trepal, 2017). MACT was developed specifically for the treatment of self-harming behaviour, including both NSSI and suicidal behaviour (Andover et al., 2017; Wester & Trepal, 2017). Evans and colleagues

(1999) explored the use of MACT to treat individuals who repeatedly engage in self-injurious behaviour. A later study by Weinberg, Gunderson, Hennen, and Cutter (2006) used MACT to target NSSI behaviour specifically in participants diagnosed with BPD. They found that MACT in addition to TAU was more effective at decreasing NSSI behaviour than those who received TAU only. Weinberg and colleagues (2006) found a decrease in both the frequency and severity of the behaviour. Based on the findings from the above studies, MACT looks to be a promising brief intervention, in addition to TAU, however research needs to explore the efficacy of MACT specifically for NSSI outside of the context of BPD.

### **Mindfulness based therapies.**

The role mindfulness plays in NSSI is also beginning to be explored. Mindfulness is considered to contain two key elements, first, attention to observation with awareness of thoughts, feelings, and body sensations. Second, a focus on being open and accepting of experiences (Bishop et al., 2004). Recent research has found that those who engage in NSSI have significantly lower levels of mindfulness (Caltabiano & Martin, 2017). Caltabiano and Martin (2017) have suggested that low mindfulness predicts NSSI. Chambers and colleagues (2015) found that those with a greater dispositional mindfulness had greater recovery in clinically depressed youth, they also found that individuals who used mindfulness as an emotion regulation strategy were associated with positive mental health outcomes and better quality of life (Chambers et al., 2015). Indicating that there is a reciprocal relationship between mindfulness and NSSI. Caltabiano and Martin (2017) suggest that mindfulness should be an important part of prevention and intervention strategies. They suggest that increasing mindfulness in young people may prevent them from engaging in NSSI in the first place (Caltabiano & Martin, 2017).

### ***Mindfulness-based cognitive therapy.***

Mindfulness-based cognitive therapy (MBCT) is a third wave cognitive therapy that has shown positive results in improving psychological distress, including NSSI behaviour. MBCT combines cognitive therapy with mindfulness. Early meta-analyses by Segal, Williams, and Teasdale (2002) and Baer (2003) demonstrated that MBCT can be used effectively as an intervention for a wide range of mental health problems. A recent meta-analysis found MBCT to be effective for stress, anxiety and depression (Kallapiran, Koo, Kirubakaran, & Hancock, 2015). Rees, Hasking, Breen, Lipp and Mamotte (2015) adapted MBCT for young adults, to target emotion regulation, distress tolerance, and attention to negative thoughts to decrease NSSI behaviour. Due to the reciprocal relationship found between NSSI and mindfulness, MBCT appears to be a potentially suitable intervention for NSSI.

### ***Mindful self-compassion.***

Neff and Germer (2013) developed a programme called mindful self-compassion (MSC). MSC consists of eight weekly workshops, each with a specific theme that focuses on cultivating self-compassion (Neff & Germer 2013). Bluth, Gaylord, Campo, Mullarkey, and Hobbs (2016) explored the programme with adolescents specifically, and the results were promising. As with many interventions, more efficacy research is necessary. This intervention would be particularly useful for individuals who engage in NSSI where the primary function is self-blame or self-punishment.

### ***Mindfulness school-based interventions.***

A New Zealand based team reviewed existing evidence of school-based programmes including those with specific aims to prevent suicide and those with a more general aim of promoting resilience and emotional wellbeing (Canterbury District Health Board [CDHB], 2013). The team explored programmes already in use in New Zealand (CDHB, 2013). CDHB (2013) found that mindfulness-based programmes as a general approach have shown promise. A range of potential benefits were identified, including reduced stress, improved mental health, and enhanced cognitive abilities (CDHB, 2013). They explain interventions need to be age appropriate to be safe for students experiencing high levels of distress and meaningful for students from diverse cultural backgrounds (CDHB, 2013). Despite promising findings for mindfulness-based therapies, there needs to be specific research developed to target NSSI to establish efficacy.

### ***Group Therapies.***

Preliminary results indicate that group therapy in general can be effective and practical for targeting adolescent NSSI. Developmental group therapy (DGT), ERGT, and voice movement therapy (VMT) are outlined below.

#### ***Developmental group therapy.***

DGT is a manualised intervention developed specifically for targeting self-harm in adolescents (Wood, Trainor, Rothwell, Moore, & Harrington, 2001). DGT consists of around 8 group sessions focused on problem-solving, emotion regulation, and social skills training applied to problem areas like school, peers, family, anger, depression, and self-harm (Brent et al., 2013). Research has explored the efficacy of DGT in comparison with TAU in adolescents who engage in self-harm repeatedly. Some research has found DGT to be more effective than TAU (Wood et al., 2001) whereas others have found it to be no more effective than TAU (Hazell et al., 2009; Green et al., 2011). Despite results appearing promising, there is a need for more research with greater methodological rigor to draw any conclusions.



### ***Emotion regulation group therapy.***

Gratz and Gunderson (2006) developed ERGT from existing literature about emotion regulation and the experiential avoidance function of self-harm. It is presented in a 14-session weekly group format. ERGT focuses on developing emotion regulation and acceptance skills and working on strategies to identify and pursue important goals and values (Gratz & Gunderson, 2006). There is a strong focus on increasing emotional awareness and changing the individual's relationship with their emotions, from a state where they are fighting their emotions, to accepting them, and learning how to control their behaviour when they feel the emotion (Garisch et al., 2017). Gratz and colleagues (2006; 2011, 2012) conducted efficacy studies between ERGT and TAU and found ERGT to reduce self-harming behaviours. It is to be noted that these studies with BPD participants and therefore studies are needed to test efficacy for ERGT as a treatment for adolescents.

### ***Voice movement therapy.***

Voice movement therapy (VMT) was developed specifically for self-injuring adolescents (Newham, 1999). Like visual arts, VMT was developed to engage with young people in a way that they might be more comfortable with. For some the verbal expression of emotion can be difficult or anxiety provoking (Newham, 1999). VMT is an integrated expressive arts therapy that aims to reduce emotion dysregulation and increase self-awareness through singing, sound-making, movement, expressive writing, massage, and drama (Newham, 1999). Martin and colleagues (2013) conducted pilot studies using VMT in addition to TAU and found statistically significant improvements especially in participants self-esteem, emotion regulation, and alexithymia. Despite the limited research, findings indicate that VMT might be an acceptable intervention to explore for adolescents who like expressive arts and self-injure.

### ***Family based therapies.***

Research has found that interventions with a focus on support from others, especially family, have shown to have the greatest impact on self-harm, suicidal ideation, and suicide attempts (Brent et al., 2013). Aspects of family-based therapies that are important are psychoeducation and identifying antecedents within the family system. Psychoeducation helps family members learn helpful and non-helpful ways to react to someone engaging in NSSI. For example, taking away items used to self-injure or showing feelings of disgust are not helpful responses, and talking to the individual about their problems or concerns, or listening to them without judging are helpful responses (Wester & Trepal, 2017). Garisch, and colleagues (2017) explain that family therapy for adolescent NSSI will only be suitable if the client and other family members are willing to engage in family work. Despite much of evidence being preliminary so far, several family therapies have been shown to reduce self-harming behaviour. Research is required to explore these interventions specifically with adolescent NSSI.

### ***Multisystemic therapy.***

Multisystemic therapy (MST; Leschied & Cunningham, 2002) is a family therapy that appears promising. It was developed for antisocial and incarcerated youth, a family-based treatment that focuses interventions on multiple systems that maintain youth problematic behaviour (Wester & Trepal, 2017). Huey and colleagues (2004) explored the efficacy of MST in relation to self-harm. MST was found to decrease self-harming behaviour more than hospitalization. Additional research is required to explore MST in relation to NSSI behaviour specifically.

### ***Family-based attachment therapy.***

Family-based attachment therapy (FBAT) also shows promise. FBAT uses process-oriented, emotion focused, and cognitive behavioural strategies aimed to enhance attachment bonds through three-months of weekly family sessions (Wester & Trepal, 2017). Diamond and colleagues (2010) found FBAT to significantly decrease suicidal ideation among those who received FBAT in comparison to TAU. Despite FBAT showing promising results in reducing suicidal ideation, it has never been evaluated with NSSI specifically (Wester & Trepal, 2017). As many who engage in NSSI are found to have experienced trouble with attachment (Gratz et al., 2002; Jiang et al., 2017), FBAT could prove to be a suitable intervention for adolescents where attachment is a key factor in their lives.

### **Medication.**

Very few randomised control trials have evaluated the efficacy of medication for reducing NSSI behaviours (Nickel et al., 2006; Turner et al., 2014). The evidence is still too insufficient to draw any conclusions (Brown & Plener, 2017). However, participants in Kool and colleagues' (2009) study, found that psychotropic medication exacerbated the behaviour. Suggesting that medication prescribed to target NSSI behaviour may not be helpful, however in some cases medication prescribed to target other mental health issues may be an option.

### **Interventions used in New Zealand.**

In New Zealand, DBT and CBT are the most frequently used interventions for treating adolescents presenting with NSSI (Garisch et al., 2017; Thabrew et al., 2018). Garisch and colleagues (2017) found that mental health professionals will also use family therapies. Thabrew and colleagues (2018) found that a portion of Infant, Child and Adolescent Mental Health Services workers also used ACT. Despite health professionals using evidence-based interventions to target NSSI behaviour, there was a large amount of variability in how these interventions were implemented (Thabrew et al., 2018). Garisch and colleagues (2017) explain that a lack of funding in mental health services and a lack of clinician time make treatments like DBT unavailable for the majority of clients and service providers. The level of therapeutic intervention needs to be matched to the client's needs (Garisch et al., 2017). An earlier review on currently available interventions for self-harm in schools concluded that there

was insufficient evidence to recommend any school based psychotherapeutic interventions to be delivered to individual students (CDHB, 2013). These findings highlight the desperate need to have effective intervention strategies that are both suitable and responsive to use with young people in New Zealand who engage in NSSI

### **Psychotherapy in general as an intervention.**

Despite there being very few interventions developed specifically to treat NSSI, several have been applied to the behaviour (Andover et al., 2017). Systematic reviews of the efficacy of available interventions for NSSI have been conducted for more than ten years (Gonzales & Bergstrom, 2013; Flaherty, 2018; Hawton et al., 2016; Muehlenkamp, 2006; Ougrin et al., 2015; Turner et al., 2014). Each review identifies interventions that appear promising for use with NSSI. Most frequently identified interventions include individual CBT based therapies including DBT, PST, MBT, and group-based therapies (e.g., ERGT, DGT). Despite promising results and a great deal of research conducted recently, there is still not enough evidence available from rigorous RCTs to draw any firm conclusions (Flaherty, 2018).

## **Chapter Two: Personal Construct Theory**

This current research is grounded on PCT, which Kelly (1955) developed to outline how people make sense of the world and the interactions they have within it. This is based on the idea that individuals see the world through patterns or templates that they create and attempt to fit over experiences and events that occur in their world (Kelly, 1991a). As people encounter these events, their templates (constructs) are either validated or invalidated, if they are not validated, their construct system is revised. Personal construct systems are viewed as being in constant motion (Carapeto & Feixas, 2018). Over time an individual's personal construct system improves their ability to appropriately anticipate events and guide an individual in their life (Carapeto & Feixas, 2018). This interpretation of events often occurs outside of the individual's awareness (Burr, King, & Butt, 2014). PCT focuses on the 'voice' of participants in gathering data by describing events in terms used by participants themselves. In giving labels to the constructs, care is taken to adopt the words and terms used by the participants (Burr et al. 2014). In PCT there is an emphasis on the uniqueness of individuals (Hodgkinson et al., 2015). PCT views people as personal scientists with their own theories (Kelly, 1955). Individuals behave in a way similar to natural scientists in their everyday lives, forming hypotheses of their world, which they test and refine over time. To the extent that if their hypotheses are confirmed, their personal construct system remains intact. If their hypotheses are falsified, they will revise their construct systems (Hodgkinson et al., 2015). PCT is based on the concept that whatever nature may be, the events faced today are subject to countless possible constructions of reality and people are capable of changing their own interpretation of events, this assumption is called constructive alternativism (Kelly, 1955; Kelly, 2003). Constructive alternativism is in contrast to

accumulative fragmentalism, which says truth is collected piece by piece (Kelly, 2003). Constructive alternativism does not argue against collecting information, however it does not measure truth by the size of the collection (Kelly, 2003).

A construct is a way that individuals view, giving meaning to, or construe the events and people in their lives and the world around them (Kelly, 1955). A construct can help individuals predict events, by looking for something that repeats itself in the events that occur around us (Warren, 2001). Constructs make our lives and how we see the world more predictable (Woodrow, Fox, & Hare, 2012). A construct is a way in which things are construed as being alike or different from other things (Adams-Weber, 1979; Fransella & Bannister, 1977). Descriptions are always in relation to something else, for example, the concept of 'good' only exists in relation to the concept of 'bad' (Woodrow et al., 2012).

It has been suggested that PCT is not just a psychological theory, but a metatheory, about theories people have about themselves (Butler, 2009; Kelly, 2003). In contrast to psychodynamic and behavioural theories, which were the predominant theories at the time PCT was developed, PCT was presented as a complete, innovative and elaborate conception of how people make sense of their world and themselves (Butler, 2009). Despite the ideas from PCT being very influential and far reaching, many people had difficulty engaging with the ideas because of the way it was presented (phraseology), resulting in PCT being alienated from mainstream psychology (Burr et al., 2014; Butler, 2009). PCT can be positioned in the constructivist tradition, where knowledge is understood to be constructed (Butler, 2009). Causality and determinism are rejected as explanations for human behaviour. One account of reality can therefore be regarded as no more 'accurate' than another (Burr et al., 2014). PCT was originally developed with a focus on psychotherapy (Adams-Weber, 1979). As PCT is about the personal construction of experiences, it is suitable for dealing with a variety of problems (Moran, Pathak, & Sharma, 2009). Kelly (1955) proposed that psychological problems are related to the anticipation of invalidation, or to the experience of invalidation, of one's most important constructs (core constructs) about the self. PCT views psychological disorders as involving a lack of the revision process, despite repeated invalidation (Kelly, 1955). Personal construct practitioners believe that people are creative agents with free will, rather than robots or machines, so they resist providing manuals (Viney, 2006).

PCT is based on two general premises, firstly humanity's progress through time can be described as a constant search for greater predictive power and control by developing, testing, and revising mental representations of the world. Secondly, individuals freely create and maintain their own unique interpretation of the world (man as a scientist; Kelly, 1955). A fundamental postulate was developed from these two premises. The postulate states that an individual's processes are psychologically determined by the way the individual anticipates events (Kelly, 1991b; Kelly, 2003). Human behaviour may be viewed as anticipatory as opposed to reactive (Kelly, 1991b). Eleven

corollaries are used to elaborate on the fundamental hypothesis, which lay the groundwork for PCT (Kelly, 1991b; Viney, 2006).

### **Repertory Grid Analysis**

The current research used mixed repertory grid analysis to gather data from participants. The repertory grid was developed by Kelly (1955) to enable him and his patient's insight into how they view their world, to assess the content and structure of their repertory of personal constructs. The repertory grid is a cognitive mapping tool used to identify the ways in which people think about the phenomena in their world (Paget & Ellet, 2014). In a typical repertory grid, individuals are asked to rate or rank a number of elements (usually people or tangible things) along a series of bipolar constructs (Grice, 2002). Traditionally in research (e.g., a questionnaire, lab measure, or a projective test) a participant's contribution is placed into categories and scale positions, and the participant is unable to propose their own terms as they would in conversation (Fransella & Bannister, 1977). Repertory grid technique allows individuals to elicit constructs that may not have been consciously realised and to understand relationships between constructs (Woodrow et al., 2012). Repertory grids allow people to talk about the world in their own terms, not the terms or constructs of the researcher (Jankowicz, 2004). In contrast, traditional survey research assumes that all participants construe the material in a survey similarly (Bell, 2000). The grid displays visually the degree that people are perceived as being similar or different to one another. There may be constructs that individual's may not be consciously aware of, due to the way they have organised information, repertory grid technique is a way to uncover these constructs (Woodrow et al., 2012). Repertory grids provide rich individual and group data, there is also minimal researcher interpretation and bias, the data and results can be presented visually to create a map of the participants construct system, and finally they are simple and easy to use (Paget & Ellet, 2014).

#### **Clinical use of repertory grids.**

The repertory grid is PCTs most well-known method for research (Bell, 2000; Burr et al., 2014). It is used by not only PCT researchers, but many others from different theoretical frameworks. For example, Jones, Harris, and Waller (1998) used repertory grids to explore the expectations of an exercise programme. Repertory grids can be studied as a group or individually. Grids can be studied on one occasion or successively over time (Fransella & Bannister, 1977). Repertory grids can be applied in an almost limitless range of contexts (Bell, 2003). A grid is always completed about a particular topic, with the intention of eliciting constructs which the individual uses to make sense of that topic. Through discovering the individual's constructs about that particular topic, you uncover how they think about it (Jankowicz, 2004). Repertory grids show how one idea links with a number of other ideas and how one person can be seen as similar to some people yet different from others. These links are often not easily put into words by the individual (Fransella & Bannister, 1977). Repertory

grid technique has been used to study depression (Haltenhof, Stapenhorst, & Krusel, 1996), obsessive-compulsive disorder (Rigdon & Epting, 1983), phobias (Sanz, Avia, & Sanchez-Bernardos, 1996), and schizophrenia (Bannister, 1965; Bannister & Fransella, 1966). Repertory grid technique is widely used to assess individuals in clinical settings (Adams-Weber, 1979). Data obtained from repertory grids in clinical settings can help the process of therapy by providing information on clients' feelings and judgements about a range of important individuals in their social world, how they identify with or feel different from these individuals, and how their actual self and ideal self, differ or relate to one another (Hardison & Neimeyer, 2012).

### **Components in repertory grids.**

Constructs are bipolar in nature, we can never confirm something without simultaneously denying something, a construct must represent a contrast (Fransella & Bannister, 1977). Two participants may use one construct label to mean two different things (Woodrow et al., 2012). Constructs must be permeable; the construct must be able to be applied to people and situations other than the elements from which the construct has been elicited. The labels attached to the constructs must be communicable, the researcher must understand what the participant means. The participant must be able to see themselves and the elements in their grid somewhere along each construct continuum (Fransella & Bannister, 1977). Constructs are a snapshot of the participant's world taken at a particular time in a particular context (Burr et al., 2014).

Elements are the entities thought about or construed, they can be an event or an object for example people the individual knows (Kelly, 1991b; Woodrow et al., 2012). Elements can be chosen by the researcher, by the participant, or negotiated between the researcher and the participant. In the current research, the researcher asked the participants to think of people they know who fit into two different categories (people with no history of NSSI and people with a history).

Each construct involves two poles, located at each end of its dichotomy (Jankowicz, 2004). Located on one side of a grid is the emergent pole of a construct, which is the idea that comes to mind immediately. Located at the opposite side of a grid is the implicit pole of a construct, which is the idea that contrasts with the emergent pole (Kelly, 1991b). After each construct has been identified and defined participants are asked to rate each element against the bipolar construct on a 5-point Likert-type scale, with a rating of 1 being associated with the emergent pole and a rating of 5 being associated with the implicit pole (Jankowicz, 2004).

Elements and constructs can be supplied by the researcher or elicited from the participant (Grice, 2002). Evidence suggests that constructs that are elicited from participants individually are more personally meaningful than constructs supplied to them from other sources (Adams-Weber, 1979). The main advantage of supplying a construct, is that it allows for a higher degree of standardisation as a basis for comparisons between different populations across grids (e.g., history of NSSI vs. no history; Bell, 2003; Paget & Ellet, 2014). Evidence suggests that participants judge

themselves and others more extremely on elicited constructs than on supplied constructs (Adams-Weber, 1979). The most common method for eliciting constructs is triadic elicitation, each participant is presented with three elements, and asked to think of an important way in which two of them are similar to each other and different from the third (Burr et al., 2014; Hardison & Neimeyer, 2012; Jankowicz, 2004). The researcher and participant then work together to decide on something that directly contrasts this construct. The characteristic that two have in common is the emergent pole and the contrasting idea is the implicit pole. Not all elicited constructs are useful in repertory grids, for example if a construct is excessively permeable (e.g., they are both female), or if it is excessively impermeable (e.g., they are both hairdressers), it is not useful to compare these constructs (Fransella & Bannister, 1977).

### **Personal Construct Theory and Repertory Grid Analysis used in Research**

Researchers have explored the use of PCT and repertory grid technique in understanding views individuals hold. Personal construct theory allows a unique lens to be applied to research, to uncover information that would not usually be readily available.

Motivations for engaging in self-harm (NSSI & suicidal behaviour) have been explored using repertory grid analysis. Padoa (2008) compared interpersonal motives with intrapersonal motives of self-harm in relation to risk. The motives were categorised into a cry for help (interpersonal reasons) and a search for self (intrapersonal reasons). Padoa (2008) found that those who engaged in self-harm as a cry for help were at a significantly greater risk than those who engaged in self-harm as a search for self. Padoa (2008) suggests that those who engage in self-harm as a cry for help may be more impulsive and engage in behaviours that are unplanned, thus resulting in greater lethality than those who do it as a search for self, who engage in self-harm more frequently but at lower levels and are carefully planned out actions. This is an example of how understanding the motivation behind an individual's NSSI, can impact on what level of care is appropriate and which intervention is suitable.

Moran, Pathak, and Sharma (2009) explored the use of PCT in a group environment for depressed female adolescents who engage in self-harm. According to Moran and colleagues (2009) PCT addresses not only the management of symptoms, but also the problems underlying them. Group sessions aim to encourage each individual to understand and address their own difficulties. Techniques were taken from different therapies including PST, CBT, DBT and psychodynamic group psychotherapy (Moran et al., 2009). There was no set curriculum, although there were key messages which were common in all sessions, these include the importance of finding a less damaging coping strategy to self-harm, suggestions of practical ways to target low mood, the acceptance of self and the development of personal ambition, taking responsibility for one's actions, and the importance of having supportive relationships (Moran et al., 2009). This method of therapy focused on females developing their own understanding of symptoms and finding their own ways to tackle them. Moran and colleagues (2009) found that those who received the group therapy were less likely to engage in

subsequent episodes of self-harm, had better school attendance and had a lower rate of behaviour disorder than adolescents given routine care only. They found no difference in rates of depression compared with routine care. They conclude that the individualised approach within a group looks promising but additional evaluation is required.

Woodrow and colleagues (2012) used repertory grid technique to examine staff views of individual clients with a diagnosis of anorexia nervosa (AN), in particular how they view those who purge and restrict. Due to the limited research available looking at staff views, Woodrow and colleagues (2012) did not have enough information to develop a questionnaire. However, it was felt that staff views would hold clinical utility, therefore repertory grid technique was used. Woodrow and colleagues (2012) elicited all of the constructs from the participants, and each grid was unique. Woodrow and colleagues (2012) found that the 14 members of staff interviewed saw clients who purge and clients who restrict in very different ways. Participants also found clients different to work with depending on their symptoms. These findings provide evidence to support a differentiation between anorexia subtypes.

Paget and Ellet (2014) used repertory grids to examine the way individuals with persecutory delusions construe themselves, others, and their main persecutor, with a focus on the constructs of malevolence and omnipotence to examine the extent that these beliefs link to distress, self-esteem and delusion conviction. Thirty participants were interviewed (62% male, 53% white). Results suggest that persecutors were construed as more omnipotent and malevolent than both the 'self' and others. Others were construed as more omnipotent and malevolent than the 'self.' (Paget & Ellet, 2014). Findings support therapeutic work with negative beliefs about the self, others, and persecutors (Paget & Ellet, 2014). In Paget and Ellet's (2014) study there were four elements, one represented the persecutor, one represented the self, one represented other people, and one represented the other people's views of the persecutor. Paget and Ellet (2014) supplied all of the constructs in each grid, 6 bipolar constructs were related to malevolence and 6 bipolar constructs were related to omnipotence. Despite the sample size being small, through repertory grid technique, Paget and Ellet (2014) were able to generate rich data.

### **Supplied Constructs**

Six bipolar constructs were supplied to each participant, these constructs were selected by the researcher for two reasons. Firstly, findings from the pilot study indicated that participants found these constructs important. Secondly these constructs have been suggested in the literature as being major factors in the lives of those who engage in NSSI. The researcher wanted to understand how each participant viewed the people they thought about in their grid in relation to each of these constructs, to compare the responses from the participants with no history of NSSI with the responses from the participants with a history.



**Identity formation: struggles with a sense of identity vs. very confident and sure of themselves.**

The construct of identity formation in each grid is worded with the emergent pole of the construct as *struggles with a sense of identity* and the implicit pole as *very confident and sure of themselves*. An individual rated as a 1 would be someone the participant views as struggling with their identity, an individual rated as a 5 is viewed as someone very confident and sure of themselves. An individual rated between 2 and 4 is viewed along this continuum. There are many factors that contribute to identity formation. It is suggested having low self-esteem and high levels of self-criticism or self-blame can result in difficulties forming a strong identity. Researchers exploring self-injury have begun to investigate the relationship between self-criticism or self-blame and NSSI (Swannell et al., 2012). Swannell and colleagues (2012) explain that child maltreatment can promote self-hatred and shame, resulting in the individual blaming themselves and internalising problems in their lives. Furthermore, these things may increase the individuals' vulnerability to self-punish to manage their problems, NSSI can be used as a method for self-punishment. A low self-esteem has often been found as a risk factor for NSSI in both community and clinical populations (De Riggi et al., 2016; Garisch & Wilson, 2015; Laye-Gindhu & Schonert-Reichl, 2005; Nock, 2009). Gender differences have also been found in this risk factor. It has been suggested that interventions that target self-esteem are more beneficial for females. Whereas, interventions that target impulse and anger control could be more suitable for males (Whitlock et al., 2011). Furthermore, Wilson and colleagues (2015) found that self-esteem can operate as a buffer against NSSI. In Garisch and Wilson's (2015) research about bullying in individuals who engage in NSSI, a link was made between low self-esteem and as a result becoming a target for bullies. The researcher wanted to see if participants viewed this construct as relevant to help understand NSSI.

**Impulsivity: behaves impulsively vs. spends a great deal of time planning.**

The construct of impulsivity in each grid has *behaves impulsively* as the emergent pole and *spends a great deal of time planning* as the implicit pole. This construct is based around the concept that individuals who engage in NSSI tend to be more impulsive, this construct is designed to uncover if the participants see those who have a history of NSSI, those with no history of NSSI, and themselves as impulsive or not. This construct has mixed support in the literature. Some research suggests that individuals who engage in NSSI are more likely to do it impulsively and be more impulsive in nature (Adler & Adler, 2011; Garisch & Wilson, 2015; Skegg, 2005; Wilson et al., 2015). Fortune, and colleagues (2008) found that participants described self-injury as something they did on the 'spur of the moment.' Adler and Adler (2011) found that many young people who engaged in self-injury did it impulsively, the young people described 'ducking into school restrooms to cut in toilet stalls, getting drunk and depressed, then cutting, or doing it whenever the mood struck them.'

Brown and Plener (2017) explain that during adolescence, when the brain is still developing, levels of impulsivity and emotional reactivity are higher, making adolescents particularly vulnerable to develop NSSI. However, other research suggests that the link between NSSI and impulsivity is more complex. Hamza, Willoughby, and Heffer (2015) looked at the relationship between NSSI and impulsivity and found that only negative urgency, which is acting rashly in the context of negative emotions, to be linked with NSSI. Behavioural measures of impulsivity were not associated with NSSI. The emotion regulation models suggest that those who experience frequent negative emotions are extremely motivated to minimise these negative states in order to provide quick and immediate relief from distress (Klonsky, 2007; Nock, 2010). That is, individuals are experiencing greater levels of emotional distress, and want to relieve that distress as quickly as possible, which can be mistaken for impulsivity.

**Emotionality: is easily overwhelmed emotionally vs. does not show emotions at all.**

The construct of emotionality in each grid is worded with the emergent pole of the construct as *is easily overwhelmed emotionally* and the implicit pole as *does not show emotions at all*. According to Klonsky and Muehlenkamp (2007) people who engage in NSSI experience more intense and frequent negative emotions in their daily lives than those who do not engage in NSSI. The researcher included this construct in the current research to see if the participants viewed those who engage in NSSI also in this manner. The heightened experience of negative emotions may be the main reason people engage in self-injury, as engaging in this behaviour may temporarily relieve emotional distress (Klonsky, 2007; Klonsky & Muehlenkamp, 2007; Selekman, 2009). Wester and Trepal (2017) suggest that those who engage in NSSI typically lack other coping skills to deal with their intense negative emotions, or they have a very low threshold for how much stress they can tolerate.

**A Traumatic history: has had a difficult time growing up vs. had a very easy childhood.**

The construct of a traumatic history in each grid is worded with the emergent pole of the construct as *has had a difficult time growing up* and the implicit pole as *had a very easy childhood*. This construct is based on research finding many individuals who engage in NSSI have experienced some form of trauma in their lives (Briere & Gil, 1998; Johnstone et al., 2016; Mi Young & Jungok, 2017; Swannell et al., 2012). However, results are mixed as to which form of childhood trauma has the greatest contribution towards engaging in NSSI. Briere and Gil (1998) explored the relationship between childhood abuse and development of self-injury. They looked at parental substance abuse, parental domestic violence, childhood psychological abuse, childhood physical abuse and childhood sexual abuse. Childhood sexual abuse was the only factor found to be strongly associated with self-injury in both clinical and non-clinical samples (Briere & Gil, 1998). Swannell and colleagues (2012) examined factors that may cause childhood maltreatment to lead to NSSI. Physical abuse and neglect were found to increase NSSI engagement in females, and physical abuse was found to increase NSSI

in males. Sexual abuse was not found to increase NSSI for either genders (Swannell et al., 2012). Swannell and colleagues (2012) found that these experiences led to feelings of self-blame for females and feelings of dissociation for males. It is suggested that childhood trauma disrupts normal development of language to share emotional experiences, which requires the child to process trauma on a nonverbal level. If a child is unable to identify or name emotions, and are feeling emotionally overwhelmed, NSSI may develop as a compensatory strategy (van der Kolk et al., 1996; Yates, 2009). Messman-Moore and Coates (2007) further suggest that childhood maltreatment can result in feelings of self-hatred and shame, which results in a self-blame attributional style, as found in Swannell and colleagues' study (2012). However, it cannot be assumed that just because an individual engages in self-harm, that they have had a traumatic childhood (Adler & Adler, 2007; Klonsky & Muehlenkamp, 2007). The researcher included this construct to see if participants in the current study viewed having a traumatic history as a relevant factor when comparing individuals who engage in NSSI with individuals who do not engage in NSSI.

**Substance use: regularly consumes alcohol or drugs vs. does not drink or use drugs at all.**

With the construct substance use, *regularly consumes alcohol or drugs* was the emergent pole, and *does not drink or use drugs at all* was the implicit pole. It is generally agreed that substance use, including alcohol consumption has some sort of association with NSSI, however the relationship is not yet well understood (Poorasl, Vahidi, Fakhari, Rostami, & Dastghiri, 2007). This relationship between alcohol use and NSSI has been frequently found in research (Kerfoot, 1996; Hawton, Rodham, Evans, & Weatherall, 2002; Scott & Powell, 1993). It is suggested that drinking may lead to acting impulsively, which may lead to engaging in NSSI behaviour (Aseltine & Gore, 2000; Giletta et al., 2012). Williams and Hasking (2010) hypothesised that risky drinking behaviour makes the relationship between psychological distress and NSSI stronger. They conclude that clinicians need to be aware of how alcohol use and coping strategies interact in the relationship between psychological distress and NSSI. Mi Young and Jungok (2017) explored factors that explain NSSI in young people and found drinking to be the most influential factor. They suggest that health care providers, particularly at schools, should consider this when developing intervention and prevention programmes for young people (Mi Young & Jungok, 2017).

Another recent study in Australia explored prevalence rates of NSSI in community samples, and the highest rates of NSSI were found in people with current heavy alcohol use or recent heavy alcohol use (Black & Kisely, 2018). It is further hypothesised that substance abuse and NSSI are alike, they are both risk taking activities, that serve a similar purpose, they both sooth emotional distress (Hollander, 2008). Stewart, Baiden, and Theall-Honey (2014) found that individuals who self-injure also tend to use substances, alcohol, prescription drugs or illicit drugs in their attempts to cope. As previous research suggests that there is a close relationship between substance use and NSSI, the

current research explored if participants viewed substance use as a factor relevant to understanding NSSI behaviour.

**Alexithymia: cannot explain how they are feeling emotionally vs. can easily talk about their emotions.**

The construct of alexithymia in each grid is worded with the emergent pole of the construct as *cannot explain how they are feeling emotionally*, and the implicit pole as *can easily talk about their emotions*. This construct is based on the idea that individuals use NSSI as a way to deal with their emotions, as they are unable to express their emotions verbally (Swannell et al., 2012; Wester & Trepal, 2017). It is suggested that many people who engage in NSSI, lack the emotional coping skills to deal with the way they feel in any other way. The researcher included this construct in the current research to explore if participants viewed individuals who engage in NSSI in this way also.

Klonsky and Muehlenkamp (2007) explain that many people who self-injure have difficulty with their experience, awareness, and expression of emotions. They also suggest that individuals who engage in NSSI have difficulty identifying or understanding their emotions (alexithymia). Previous research has found that measures of alexithymia significantly correlate with NSSI (Cerutti, Calabrese, & Valastro, 2013). Swannell and colleagues (2012) suggest that difficulty identifying emotions coupled with feeling overwhelmed may lead to young people expressing emotion through their body (e.g., through NSSI). They further suggest that NSSI may develop as a strategy to interrupt their intense, uncontrollable emotions.

**Why the constructs that young people hold about non-suicidal self-injury need to be explored**

An earlier pilot study was conducted see if mixed repertory grid analysis could be used as a method to explore and understand the way NSSI is viewed by young people. Results from the pilot study indicated that mixed repertory grid analysis can be suitable to explore the constructs young people hold about NSSI. Both the current research and the pilot study supplied six constructs and elicited five from participants to explore NSSI, both studies asked participants to think about three people they know who have never engaged in NSSI, two people they know who they believe have engaged in NSSI, and themselves. Both studies recruited participants with an average age ranging between 25 and 26. However as a result of the findings and limitations of the pilot study, several aspects of the research have been changed. Firstly, a larger number of participants were recruited, participants who had a personal history of NSSI were also included in the study, a greater range of ethnic diversity existed between participants (pilot study only NZ European), only female participants were included (to minimise other variables). The researcher wanted to access a younger population, adolescents, as adolescents are most likely to be engaging in the behaviour and have peers close to them engaging in the behaviour, however due to ethical concerns, was unable to recruit participants at High School age.

The current research aims to compare and explore constructs held about people who engage in NSSI. There is a gap in the research surrounding how peers close to those who engage in NSSI view NSSI, including those with a personal history of it. The research aims to compare how lay experts understand NSSI behaviour with the findings from existing research, to see if these views are shared. Exploring and understanding the views of peers can help identify target areas related to risk factors, protective factors, and outcomes of NSSI in order to guide future health promoting initiatives and interventions. Health promoting initiatives developed based on the areas identified in the current research would help peers and family members of individuals who engage in NSSI understand the behaviour and feel in a better position to help and support them. Practical steps that peers and family members can take to better support the individual who is engaging in self-harm could be vital in helping that individual stop engaging in NSSI.

## Chapter Three: The Current Research

### Methods

#### Participants

This study recruited females ( $n = 17$ ) who ranged in age from 18 to 41 years old ( $M = 25.8$ ,  $SD = 6.43$ ; see Table 1 & 2 for demographics), nine with a personal history of NSSI and eight with no personal history. Participants were excluded if they were younger than 16, non-English speaking, had a recent personal history of NSSI (within the last 6 months), or expected that they might become distressed by thinking about NSSI. Informed consent was gained from all participants (see Appendix B).

Table 1.

*Demographics of Participants with a personal history of NSSI*

Participant Number (history)	Age	Ethnicity
One	25	NZ Māori and European
Two	24	NZ European
Three	28	NZ European
Four	18	Indonesian
Five	28	NZ European
Six	41	NZ Māori
Seven	23	NZ Māori and European
Eight	23	NZ Māori and European
Nine	19	NZ European
Average age	25.4	

Table 2.

*Demographics of Participants with no personal history of NSSI*

Participant Number (no history)	Age	Ethnicity
One	21	NZ Māori
Two	19	NZ Māori
Three	20	NZ European
Four	25	NZ European
Five	36	NZ European
Six	35	British
Seven	27	NZ European
Eight	26	NZ European
Average age	26.1	

#### Materials

A repertory grid was completed for each of the 17 participants (see Appendices C to S for

completed grids). Microsoft Excel (2016), was used for basic analyses of the data. Two software analysis packages designed for analysing repertory grids were also used. WebGrid Plus is a web-based application for analysing single repertory grids (<http://grid.eilab.ca>; WebGrid Plus, 2017) and Idiogrid is a Windows application ([www.idiogrid.com](http://www.idiogrid.com); Version 2.4; Grice, 2007), which is suitable for multigrid analysis.

## **Procedure**

Ethical approval was obtained from the relevant committee and approval to recruit participants through Toi Ohomai Institute of Technology was gained prior to beginning the recruitment stage. Participants were recruited through Toi Ohomai Institute of Technology through the placement of flyers around the campus and the health centre staff mentioning the research to potential participants (see Appendix T). If an individual was interested in participating, they contacted the researcher, and a copy of the participant information sheet was given to them (see Appendix U). Mixed repertory grids were completed privately with each participant. Participants were first advised of the basic interview structure, and any outstanding questions were answered, they then signed the participant consent form (Appendix B). Basic demographic data was collected including age, gender, ethnicity (see Table 1 & Table 2), and if they have a personal history of NSSI (see Appendix V) If the participant had a personal history of NSSI they were also asked to respond to a question about why they think they have not engaged in NSSI in the past 6 months (see Table 17).

Each participant co-developed their repertory grid with the researcher (see Appendix W for template used). Each participant was first asked to think of five people they know, two of whom were individuals who have engaged in NSSI (or they think they might have), three of whom were people that they do not think have ever engaged in NSSI. These five-people made up the first five elements in the repertory grid, the sixth element was themselves. The six names were written at the top of the grid, also on six coloured cards. Participants were then presented with the supplied constructs (see Table 3).

Table 3

*Six Supplied Constructs Provided to Each Participant*

Construct	Emergent Pole (1)	Implicit Pole (5)
Identity formation	Struggles with a sense of identity	Very confident and sure of themselves
Impulsivity	Behaves impulsively	Spends a great deal of time planning
Emotional	Is easily overwhelmed emotionally	Does not show emotions at all
A traumatic history	Has had a difficult time growing up	Had a very easy childhood
Substance use	Regularly consumes alcohol or drugs	Does not drink or use drugs at all
Alexithymia	Cannot explain how they are feeling emotionally	Can easily talk about their emotions

Each of the supplied constructs were revealed to participants one at a time. Participants were asked to think about the first of the names written on the top of their grid, and how closely they think that individual relates to the emergent pole of each supplied construct. If they thought that individual very closely relates to the emergent pole, they would provide a rating of 1, if they thought that individual more closely relates to the implicit pole, they would provide a rating of 5. If they thought that individual was somewhere in between, they would provide a rating between 1 and 5 based on how closely the participant feel they relate to either end of the pole (Likert type scale). Participants were encouraged to provide ratings based on their perception of the individual they were thinking about. The ratings given by participants were written in the grid, under the individual's name. Participant were then asked to rate the next five people written along the top of the grid in relation to how closely they align with the same supplied construct. Once ratings for the first construct were complete, the participant would repeat the process for the next supplied construct, until all six constructs were rated in relation to the six elements in the grid.

Once all six supplied constructs were rated, the researcher selected three of the six names written on coloured cards and presented the three cards to the participant. The researcher then asked the participant to think about those three people and think of something important that two of the people have in common and the third person does not share. This technique is called triadic elicitation and is the most common method for eliciting constructs (Jankowicz, 2004). Once the participant



thought of something that two of the people shared, that was different from the third, it was written down on the left side of the grid as the emergent pole, directly below the supplied constructs. The researcher then worked with the participant to develop an idea that directly contrasts to the emergent pole, whatever that was, was written on the right side of the grid as the implicit pole. The participant was then required to rate each of the six names written on the top of the grid in relation to the elicited construct, as they had for the supplied constructs. Once all six people were rated, a different combination of names were selected by the researcher, and the participant was asked to think about those three people and a way that two were similar and different to the other. Whatever the participant thought of was written on the left side of the grid, and the contrasting idea was written on the right side, and as before, the participant was asked to rate each of the people in relation to the most recently elicited construct. This process was repeated until five constructs were elicited from each participant. Once each element was rated relation to each construct, the interview was concluded. Each participant was then asked if they had any questions or were able to provide any feedback. Participants were thanked for their time and given a \$20 New World gift card as compensation.

## **Analysis**

Constructs and ratings from each of the 17 grids were first examined visually by eyeballing the grids to establish any immediately visible trends or patterns. Using Microsoft Excel, the mean and standard deviation (SD) of the ratings for all *NSSI* elements, *no-NSSI* elements, and *self* elements in relation to the six supplied constructs were calculated. An analysis of variance (ANOVA) was also calculated to compare the differences between the groups along each of the six supplied constructs. Close matches and Pearson's product moment correlations between elements within grids and across grids were explored using WebGrid Plus and Idiogrid 2.4. Close matches and correlations between constructs within grids and across grids were also explored using WebGrid Plus and Idiogrid 2.4. This was done to identify any strong associations between elements or between constructs. The elicited constructs were examined and categorised into themes based on the content of each construct, comparisons were made between the types of constructs elicited from participants with no history of *NSSI* and participants with a history of *NSSI*. Focus Cluster analysis was used to explore which

constructs and which elements have been viewed in a similar way by participants (WebGrid Plus). Principal Component Analysis (PCA) was used to explore the variability in figures in the grid, to identify patterns of variability. The pattern that accounts for the largest amount of variability is identified, reported, and removed, leaving the next pattern to be identified (Jankowicz, 2004). WebGrid plus produced PrinGrid maps for each participant which are visual representation of PCA. These analyses allow for the identification of interactions between elements and constructs within each grid. Extremity analyses were conducted using Idiogrid 2.4 to see if participants rated the elicited constructs more extremely than the supplied constructs. Constriction was also measured using Idiogrid 2.4 to see if participants with a personal history of NSSI were more likely to constrict the ratings of themselves than participants with no history of NSSI were. Finally, reasons participant attribute to stopping NSSI were explored.

### **Ethical considerations**

Ethical approval and bicultural consultation were obtained prior to conducting the research. Participants were excluded if they had engaged in NSSI six months prior to the interview. Six months was considered enough time for experiences to occur in an individual's life where they might turn to NSSI behaviour, if they have not already, then the chance of them engaging in the behaviour as a result of the interview were greatly decreased. Interviews were conducted in an environment where a health professional was available if the participant felt uncomfortable and wanted to speak with someone. Participants were informed that they were welcome to stop the interview if at any time they felt uncomfortable. Feedback was requested at the end of each interview to ascertain any concerns or issues about the process. The researcher tried to remain neutral when discussing the behaviour, to minimise any social desirability bias occurring in the interview. The researcher did not disclose their personal experience of NSSI. The target participant population in the current research was adolescents, however due to the nature of the topic (NSSI) and the age of the target group (adolescents) approval was received to conduct research within a tertiary environment only. Meaning that younger participants were not accessed, despite this being the population most likely to be engaging in the behaviour or have friends who are currently engaging in the behaviour.

## **Results**

Results for the current research are presented below. To create anonymity each grid is labelled with the participant number and if they have a personal history of NSSI (history) or not (no history). For example, the first participant to conduct the interview with no history of NSSI is referred to as participant one (no history). Elements were also coded to identify and group them easily and to create anonymity. Each of the individuals, who the participant thought had engaged in NSSI, were coded as 'NSSI,' and depending on what order they were written down on the grid, they were coded as either 1 or 2. If they were male or female, they were coded as 'm' or 'f.' For example, in the first grid, the first NSSI element was coded as 'NSSI.1-F.' This coding pattern was followed across all the grids and different types of elements. The individuals who the participant thought had never engaged in NSSI were coded as 'no-NSSI,' with a number to indicate the order they were presented in, and their gender (e.g., no-NSSI.1-F). The 'self' element was coded as 'self,' followed by 'y' or 'n' based on if they have a personal history of NSSI or not (e.g., Self-Y). All participants were female, so gender was not specified on the grid for the 'self' element. Findings from analyses within grids and analyses across the grids are presented below. Specific findings and common trends are discussed.

### **Average Element Ratings of the Supplied Constructs**

The mean element ratings from participants with no history of NSSI and participants with a history of NSSI for each supplied construct are displayed in Table 4 and Table 5. Elements were grouped into three categories those with a history of NSSI (NSSI), those with no history of NSSI (no-NSSI), and the participants themselves (self-N, self-Y).

Table 4

*Mean Ratings of Supplied Constructs by Element Type from Participants with No History of NSSI*

Emergent Pole (1)	NSSI	No-NSSI	Self-N	Implicit Pole (5)
Struggles with a sense of identity	2.63	4.21	3.75	Very confident and sure of themselves
Behaves impulsively	3.13	3.17	3.00	Spends a great deal of time planning
Is easily overwhelmed emotionally	2.38	2.92	3.25	Does not show emotions at all
Has had a difficult time growing up	2.31	3.58	3.75	Had a very easy childhood
Regularly consumes alcohol or drugs	3.00	3.33	3.50	Does not drink or use drugs at all
Cannot explain how they are feeling emotionally	2.94	3.92	3.50	Can easily talk about their emotions

Note. Self-N = participant with no history

Table 4 displays the mean ratings for element groupings in relation to supplied constructs for participants with no history of NSSI. The NSSI element group is consistently rated closer to the emergent pole of the supplied constructs than both the no-NSSI and self-N element groups. The only construct participants with no history of NSSI rated themselves closer to the emergent pole than the other two element groups, was impulsivity, however this difference was not significant ( $p = .957, ns$ ). Participants with no history of NSSI rated the no-NSSI element group closest to three implicit poles, very confident and sure of themselves, spends a great deal of time planning, and can easily talk about their emotions. Participants with no history rated themselves closest to the other three implicit poles, does not show emotions at all, had a very easy childhood, and does not drink or use drugs at all.

Table 5

*Mean Ratings of Supplied Constructs by Element Type from Participants a History of NSSI*

Emergent Pole (1)	NSSI	No-NSSI	Self-Y	Implicit Pole (5)
Struggles with a sense of identity	2.28	3.89	2.78	Very confident and sure of themselves
Behaves impulsively	2.83	3.74	3.11	Spends a great deal of time planning
Is easily overwhelmed emotionally	2.44	3.44	2.44	Does not show emotions at all
Has had a difficult time growing up	2.72	3.70	2.89	Had a very easy childhood
Regularly consumes alcohol or drugs	2.56	3.00	3.11	Does not drink or use drugs at all
Cannot explain how they are feeling emotionally	2.61	3.04	2.89	Can easily talk about their emotions

Note. Self-Y = participant with a history

Table 5 displays the mean ratings for element groupings in relation to the supplied constructs from participants with a history of NSSI. The NSSI element group is also consistently rated closest to

the emergent pole of each construct. The no-NSSI element group is consistently rated closest to the implicit poles of each construct, and the self-Y element group is consistently rated between the other two groups. Participants with a history of NSSI rated themselves as more likely to not drink or use drugs ( $M = 3.11$ ) than both the NSSI and no-NSSI group (NSSI  $M = 2.56$ ; no-NSSI  $M = 3.00$ ).

Both participant types rated the NSSI element group closer to the emergent pole of each construct, however participants with a history of NSSI tended to rate the NSSI more extremely on the supplied constructs (i.e., closer to the emergent poles). NSSI element groups were viewed as struggling more with their identity, more impulsive, more emotional, suffered more trauma, more likely to consume alcohol or drugs, and more likely to have difficulty talking about how they feel. The dichotomous construct of identity formation was rated closest to the emergent pole of the constructs struggles with a sense of identity than any other construct. Participants with a history of NSSI provided a mean rating of 2.28 for the NSSI element group. Identity formation was also found to be the construct rated closest to the implicit pole of the construct, the no-NSSI group were give a mean rating of 4.21, which is closest to, very confident and sure of themselves. Suggesting that all participants view this supplied construct as relevant for understanding NSSI behaviour.

A t-test (two-sample assuming unequal variances) was conducted for each construct to see if the ratings given to the NSSI element group by both types of participants were statistically different. T-test's revealed that the differences between mean ratings across the six supplied constructs were not statistically significant (ranging from  $p = .284$  [substance use] to  $p = .877$  [emotionality], *ns*). This means that despite participants with a personal history of NSSI viewing people they know who they believe have also engaged in NSSI, closer to the emergent poles of the supplied constructs than participants with no history view them, the difference in ratings between the two participant types is not statistically significant.

### **Analysis of Variance for the Supplied Constructs**

An ANOVA was conducted for each average element rating in relation to supplied constructs to see if participants viewed their elements as significantly different populations when thinking about any of the supplied constructs. ANOVAs revealed that participants with no history of NSSI viewed

their elements as significantly different populations when thinking about identity formation, traumatic history, and alexithymia (see Table 6). In contrast ANOVAs revealed that participants with a history of NSSI viewed their elements as significantly different populations when thinking about identity formation, impulsivity, and emotionality (see Table 7).

Table 6

*Analysis of Variance for Supplied Constructs from Participants with No History of NSSI*

Emergent and Implicit Poles of Supplied Constructs	F	P-value	F critical
Struggles with a sense of identity (1) vs. Very confident and sure of themselves (5)	14.676	.000*	3.204
Behaves impulsively (1) vs. Spends a great deal of time planning (5)	0.044	.957	3.204
Is easily overwhelmed emotionally (1) vs. Does not show emotions at all (5)	1.841	.171	3.204
Has had a difficult time growing up (1) vs. Had a very easy childhood (5)	6.646	.003*	3.204
Regularly consumes alcohol or drugs (1) vs. Does not drink or use drugs at all (5)	.827	.444	3.204
Cannot explain how they are feeling emotionally (1) vs. Can easily talk about their emotions (5)	3.650	.034*	3.204

Note. significance of  $p < 0.05^*$

Table 7

*Analysis of Variance for Supplied Constructs from Participants with a History of NSSI*

Emergent and Implicit Poles of Supplied Constructs	F	P-value	F critical
Struggles with a sense of identity (1) vs. Very confident and sure of themselves (5)	11.851	.000*	3.179
Behaves impulsively (1) vs. Spends a great deal of time planning (5)	3.610	.034*	3.179
Is easily overwhelmed emotionally (1) vs. Does not show emotions at all (5)	4.233	.020*	3.179
Has had a difficult time growing up (1) vs. Had a very easy childhood (5)	2.719	.076	3.179
Regularly consumes alcohol or drugs (1) vs. Does not drink or use drugs at all (5)	.668	.517	3.179
Cannot explain how they are feeling emotionally (1) vs. Can easily talk about their emotions (5)	.490	.615	3.179

Note. significance of  $p < 0.05^*$

T-tests (two-sample assuming unequal variances) were conducted to examine which element groups the above differences existed between. Three *t*-tests were completed for each construct where the null hypothesis was rejected. The first was between the NSSI group and the no-NSSI group, the second was between the NSSI group and the self group, the third was between the No-NSSI group and the self-group. T-tests revealed that both participant types viewed the two element groups, NSSI and no-NSSI, as statistically different in relation to identity formation ( $p < .001$ ). Participants with no

history of NSSI also viewed themselves (self-N group) as statistically different to the NSSI group ( $p < .01$ ) in relation to identity formation. T-tests revealed that participants with a history of NSSI viewed the NSSI group and the no-NSSI group as different populations in relation to both impulsivity ( $p < .01$ ) and emotionality ( $p < .02$ ). T-tests revealed that participants with no personal history of NSSI viewed the NSSI group and the no-NSSI group as different populations in relation to both a traumatic history ( $p < .01$ ) and alexithymia ( $p < .02$ ). Participants with no history of NSSI also viewed themselves (self-N) and the NSSI group as significantly different in relation to traumatic history ( $p < .05$ ).

### **Relationships between Elements**

Relationships between elements were explored. Firstly, elements that were rated very closely to another element were considered a match, matches greater than 80% are discussed. Out of all possible matches between elements across the grids, only 16 matches greater than 80% were found. A greater number of matches were found between elements from participants with no history of NSSI (matches  $> 80\% = 12$ ) than participants with a history of NSSI (matches  $> 80\% = 4$ ). Matches between elements were found in 62.5% of grids developed by participants with no history of NSSI, with the most common match being found between a no-NSSI element and a self-N element. Matches between elements were also common between two no-NSSI elements. Matches between elements were found in 33% of grids developed by participants with a history of NSSI, the most common match found was between an NSSI element and a self-Y element.

Pearson's product moment correlations between elements were calculated using ratings from both elicited and supplied constructs. Both positive and negative significant correlations are reported ( $p < .05$ ). Examples of correlations found in individual grids are first presented followed by a summary of patterns observed across the participant grids.

Table 8

*Pearson's Product Moment Correlation Matrix of the Six Elements from Participant Eight (No History)*

Elements	No-NSSI.1F	No-NSSI.2F	No-NSSI.3M	NSSI.1F	NSSI.2F
No-NSSI.2F	.86***				
No-NSSI.3M	.49***	.72***			
NSSI.1F	.13	-.15	-.28**		
NSSI.2F	-.60***	-.61***	-.69***	.12	
Self-N	.77***	.76***	.58***	.23	-.80***

Note. \* =  $p < .05$ , \*\* =  $p < .02$ , \*\*\* =  $p < .01$

Correlations between elements for participant eight's grid (no history) are displayed in Table 8. Correlations indicate that participant eight (no history) views themselves (self-N) as very similar to all three no-NSSI elements in their grid ( $p < .01$ ). Participant eight (no history) also views themselves as very different to one of the NSSI elements in their grid,  $r(64) = -.80$ ,  $p < .01$ . Significant positive correlations were found between every no-NSSI elements ( $p < .01$ ). The two NSSI elements were not positively correlated with any of the other elements or with themselves, they were however significantly negatively correlated with most of the no-NSSI elements.

Table 9

*Pearson's Product Moment Correlation Matrix of the Six Elements from Participant Three (History)*

Elements	No-NSSI.1M	No-NSSI.2M	No-NSSI.3M	NSSI.1M	NSSI.2F
No-NSSI.2M	.40***				
No-NSSI.3M	.41***	.14			
NSSI.1M	-.23	.24	-.42***		
NSSI.2F	-.66***	-.05	-.63***	.47***	
Self-Y	-.15	.11	-.75***	.58***	.73**

Note. \* =  $p < .05$ , \*\* =  $p < .02$ , \*\*\* =  $p < .01$

Table 9 displays correlations between elements from participant three's grid (history). Significant positive correlations were found between the participant (self-Y) and both NSSI elements,  $r(64) = .58$ ,  $p < .01$ ;  $r(64) = .73$ ,  $p < .01$ . A significant positive correlation was also found between the two NSSI elements,  $r(64) = .47$ ,  $p < .01$ . Negative correlations were found between most of the no-NSSI elements and NSSI elements, and only positive correlations were found between the no-NSSI elements. This table is like other grids of participants with a history of NSSI, however there are some



grids with very few significant correlations displayed, for example participant seven (history) only had three significant correlations between elements, all negatively oriented (see table 10).

Table 10

*Pearson's Product Moment Correlation Matrix of the Six Elements from Participant Seven (History)*

Elements	No-NSSI.1F	No-NSSI.2F	No-NSSI.3F	NSSI.1M	NSSI.2F
No-NSSI.2F	.11				
No-NSSI.3F	.14	-.05			
NSSI.1M	-.05	-.59***	.04		
NSSI.2F	.04	.11	-.14	-.58***	
Self-Y	-.56***	.23	.07	.15	-.21

Note. \* =  $p < .05$ , \*\* =  $p < .02$ , \*\*\* =  $p < .01$

Element correlation trends were explored across grids. When looking at correlations between self-Y elements and NSSI elements, 76.9% of significant correlations were positive. When looking at correlations between self-Y elements and no-NSSI elements, 71.4% of significant correlations were negative. When exploring correlations between two no-NSSI elements, 73% of significant correlations were positive. In contrast 50% of significant correlations found between two NSSI elements were positive. Finally, 69.7% of significant correlations between a no-NSSI element and an NSSI element were negative. Significant element correlations were found in the direction the researcher hypothesised (e.g., positive correlation between no-NSSI & no-NSSI), more frequently than they were found in the opposite direction (e.g., positive correlation between no-NSSI & NSSI). Based on the element correlation results, participants with a history of NSSI were more likely to view themselves as similar to another NSSI element than they were to view two NSSI elements as similar. A negative correlation between two NSSI elements was found as often as a positive correlation, suggesting that the NSSI elements participants think about in their grids are often viewed in quite different ways. These results support the hypothesis that participants with no history of NSSI view themselves and others with no history more often as similar than opposing, participants with a history of NSSI view themselves and others with a history also more often as similar than opposing.

## Relationships between Constructs

Relationships between constructs have been explored, and strong construct matches are discussed. Matches between constructs are found when participants rate two poles of a dichotomous construct in a very similar way. Only 7% of all possible matches between constructs were closely matched (i.e., matches > 80%). Almost half of these matches were found between a supplied construct and an elicited construct (46.9% of matches > 80%). Just over a third of these matches were found between supplied constructs (36.3% of matches > 80%), and 16% were found between elicited constructs. Three constructs pairs from the grids were found to match 100%, these pairs were rated the same in relation to the elements in their grid. Struggles with a sense of identity matched perfectly with is easily overwhelmed emotionally in participant three's grid (history). Struggles with a sense of identity was also perfectly matched with has had a difficult time growing up in participant eight's grid (no history). Regularly consumes alcohol or drugs was also perfectly matched with *enjoys festivals and being in a large crowd* in participant eight's grid (history).

Eight construct pairs from participants with no history of NSSI were also found to be closely matched (matches > 90%). Consumes alcohol or drugs was closely matched with cannot explain how they feel emotionally by participant one (no history) and participant two (no history), 91.7% match. Struggles with a sense of identity was closely matched with is easily overwhelmed emotionally by participant two (no history). Participant two (no history) also closely matched cannot explain how they are feeling emotionally with *has a good relationship with their parents* (91.7% match). Regularly consumes alcohol or drugs was closely matched with *is outgoing in groups* by participant three (no history), 91.7% match. Struggles with a sense of identity was also closely matched with has had a difficult time growing up by participant five (no history), 95.8% match. Behaves impulsively was closely matched with has had a difficult time growing up by participant seven (no history), 91.7% match. Finally, participant eight (no history) closely matched behaves impulsively with regularly consumes alcohol or drugs (91.7% match). Three construct pairs from participants with a history of NSSI were also found to be very closely matched (matches > 90%). Cannot explain how they feel emotionally was closely matched with *likes to be on their own or with their partner* in participant one's grid (history), 91.7% match. *Enjoys socialising* was closely matched to *is dramatic* in participant

five's grid (history), 91.7% match. Has had a difficult time growing up was closely matched to *has challenging children* in participant six's grid (history), 95.8% match.

Matches between supplied constructs only were also explored. All supplied constructs were found to be closely matched with another supplied construct at least once. However, *behaves impulsively* was matched with another supplied construct the most frequently. When looking at specific matches between supplied constructs, *struggles with a sense of identity* was closely matched (above 80%) with *is easily overwhelmed emotionally* the most frequently, a total of four times. Other frequent supplied construct matches include *identity formation* and *childhood trauma*, *substance use* and *alexithymia*, *impulsivity* and *substance use*, and *identity formation* and *alexithymia*. Each matched together a total of three times.

Relationships between constructs were explored using Pearson's product moment correlation. Examples of both positive and negative significant correlations between constructs for individual grids are provided (see Table 11, Table 12, Table 13) and a summary of overall findings across grids is also provided. Cronbach's alpha of .05 or greater was required for a correlation to be considered significant.

Table 11

*Pearson's Product Moment Correlation Matrix of Emergent Poles from Participant Seven (no history)*

Emergent Poles	Struggles with a sense of identity (s)	Behaves impulsively (s)	Is easily overwhelmed emotionally (s)	Has had a difficult time growing up (s)	Regularly consumes alcohol or drugs (s)	Cannot explain how they are feeling emotionally (s)	Has lost a significant person in their lives	Has strong family connections	Is reserved and laid back	Is very social
Behaves impulsively (s)	.70***									
Is easily overwhelmed emotionally (s)	.42***	-.28*								
Has had a difficult time growing up (s)	.60***	.92***	-.21							
Regularly consumes alcohol or drugs (s)	.12	.49***	-.07	.60***						
Cannot explain how they are feeling emotionally (s)	.46***	.59***	-.41***	.26*	-.19					
Has lost a significant person in their lives	-.03	.67***	-.83***	.65***	.38***	.42***				
Has strong family connections	-.79***	-.49***	-.66***	-.56***	-.51***	.10	.22			
Is reserved and laid back	-.83***	-.29*	-.68***	-.28*	.06	-.11	.48***	.78***		
Is very social	.25*	.48***	-.15	.25*	.58***	.48***	.32**	-.23	.12	
Has a strong work ethic	-.33***	-.84***	.38***	-.91***	-.82***	-.18	-.74***	.42***	.00	-.45***

Note. \* =  $p < .05$ , \*\* =  $p < .02$ , \*\*\* =  $p < .01$ , (s) denotes supplied constructs

Correlations between constructs from participant seven's grid (no history) are displayed above (Table 11). The majority (66.7%) of correlations between supplied constructs were found to be significant ( $p < .05$ ). Two of these were significant negative correlations, *behaves impulsively* vs. *is easily overwhelmed emotionally*,  $r(64) = -.28$ ,  $p < .05$ , and *cannot explain how they are feeling emotionally* vs. *is easily overwhelmed emotionally*,  $r(64) = -.41$ ,  $p < .01$ . This means that participant

seven (no history) sees these constructs as opposing. The remaining eight significant correlations between supplied constructs were found to be positive. Strong correlations were found between supplied constructs in this grid, for example behaves impulsively was very closely correlated with has had a difficult time growing up,  $r(64) = .92, p < .01$ . The majority of correlations between supplied and elicited constructs were also found to be significant, however more negative correlations were found. Has had a difficult time growing up was negatively correlated with *has a strong work ethic*,  $r(64) = .91, p < .01$ . Indicating a strong relationship between these two constructs.

Table 12

*Pearson's Product Moment Correlation Matrix of Emergent Poles from Participant Eight (no history)*

Emergent Poles	Struggles with a sense of identity (s)	Behaves impulsively (s)	Is easily overwhelmed emotionally (s)	Has had a difficult time growing up (s)	Regularly consumes alcohol or drugs (s)	Cannot explain how they are feeling emotionally (s)	Very cautious	Is emotionally unstable	Very confident	Highly academic
Behaves impulsively (s)	.21									
Is easily overwhelmed emotionally (s)	.35***	-.30**								
Has had a difficult time growing up (s)	1.00***	.21	.35***							
Regularly consumes alcohol or drugs (s)	.39**	.94***	.00	.39***						
Cannot explain how they are feeling emotionally (s)	.31**	-.09	.65***	.31**	.16					
Very cautious	-.26*	-.93***	.00	-.26*	-.94***	-.05				
Is emotionally unstable	.51***	.09	.72***	.51***	.32**	.87***	-.32**			
Very confident	-.78***	.41***	-.37***	-.78***	.27**	-.21	-.36***	-.32**		
Highly academic	-.81***	-.59***	-.26*	-.81***	-.75***	-.07	.63***	-.29*	.35***	
Has a good family support system	-.99***	-.28*	-.38***	-.99***	-.47***	-.29*	.35***	-.52***	.72***	.87***

Note. \* =  $p < .05$ , \*\* =  $p < .02$ , \*\*\* =  $p < .01$ , (s) denotes supplied constructs

Several very strong construct correlations are presented in Table 12 from participant eight (no history). Most correlations between supplied constructs were also found to be significant. 90% of these correlations were positive, with just one negative correlation between behaves impulsively and is easily overwhelmed emotionally,  $r(64) = -.30, p < .02$ . A strong correlation between struggles with a sense of identity and has had a difficult time growing up was found,  $r(64) = 1.00, p < .01$ . Behaves impulsively was also strongly correlated with regularly consumes alcohol or drugs,  $r(64) = .94, p < .01$ . Several very strong negative correlations were also found between supplied and elicited constructs. For example, both struggles with a sense of identity and has had a difficult time growing up were strongly negatively correlated with *has a good family support system*,  $r(64) = -.99, p < .01$ . Indicating a very close relationship seen between these three constructs. Both struggles with a sense of identity and has had a difficult time growing were also negatively correlated with *highly academic*,  $r(64) = -.81, p < .01$ . Behaves impulsively and regularly consumes alcohol or drugs were both strongly

negatively correlated with *very cautious*,  $r(64) = -.93, p < .01$ ;  $r(64) = -.94, p < .01$ . In addition to these negative correlations, a strong positive correlation was found between cannot explain how they are feeling emotionally and *emotionally unstable*,  $r(64) = .87, p < .01$ .

Table 13

*Pearson's Product Moment Correlation Matrix of Emergent Poles from Participant Six (history)*

Emergent Poles	Struggles with a sense of identity (s)	Behaves impulsively (s)	Is easily overwhelmed emotionally (s)	Has had a difficult time growing up (s)	Regularly consumes alcohol or drugs (s)	Cannot explain how they are feeling emotionally (s)	Has a love of travelling	Grew up close to their culture	Likes to be part of a team	Has challenging children
Behaves impulsively (s)	.02									
Is easily overwhelmed emotionally (s)	.73***	.10								
Has had a difficult time growing up (s)	.66***	.33***	.18							
Regularly consumes alcohol or drugs (s)	.03	-.03	-.49***	.50***						
Cannot explain how they are feeling emotionally (s)	.63***	.10	.08	.49***	.44***					
Has a love of travelling	-.03	-.80***	-.12	-.47***	.16	.24				
Grew up close to their culture	-.48***	-.39***	-.01	-.98***	-.58***	-.38***	.55***			
Likes to be part of a team	-.24	-.72***	-.18	-.37***	-.41***	-.44***	.28*	.39**		
Has challenging children	.81***	.24	.35***	.97***	.39***	.58***	-.37***	-.90***	-.33***	
Is still dependent on their parents	-.16	-.22	.14	-.11	.24	-.49***	.15	.05	-.15	-.16

Note. \* =  $p < .05$ , \*\* =  $p < .02$ , \*\*\* =  $p < .01$ , (s) denotes supplied constructs

Correlations between constructs for participant six's grid (history) are displayed in Table 13. As with the other grids, there are a number of positive correlations found between the supplied constructs and a number of negative correlations found between the supplied and elicited constructs. Notable strong correlations include a negative correlation between has had a difficult time growing up and *grew up close to their culture*,  $r(64) = -.98, p < .01$ , and a positive correlation between has had a difficult time growing up and *has challenging children*,  $r(64) = .97, p < .01$ . Has challenging children is also strongly negatively correlated with *grew up close to their culture*,  $r(64) = -.90, p < .01$ . These above correlations indicate a close relationship between the three constructs.

Participants were found to be more likely to positively correlate the supplied constructs with each other and negatively correlate the elicited constructs with the supplied constructs. When comparing correlations between participants with a history and participants with no history some differences were found. Participants with no personal history of NSSI had a greater number of significant negative correlations than positive correlations ( $p < .05$ ) between their elicited constructs and the supplied constructs. In contrast, participants with a history of NSSI had a greater number of significant positive correlations between their elicited constructs than the supplied constructs.

In addition to the construct correlations outlined in Table 11, Table 12, and Table 13, there were several strong construct correlations found in participant's grids. Two perfect positive correlations were found between constructs,  $r(64) = 1.00, p < .01$ . The first was from participant three (history), struggles with a sense of identity correlated with is easily overwhelmed emotionally. The second was from participant eight (history), regularly uses alcohol and drugs correlated with enjoys festivals and being in a large crowd. Struggles with a sense of identity was also strongly positively correlated with has had a traumatic history by participant five (no history),  $r(64) = .97, p < .01$ . Three perfect negative correlations were also found between constructs. Has had a difficult time growing up and *is very creative* (participant one no history), is easily overwhelmed emotionally and *responsible and thinks before they speak* (participant five no history) and cannot explain how they are feeling emotionally and *bounces back quickly from problems* (participant five no history) were all viewed as opposing to each other.

### **Elicited constructs**

Elicited constructs from all grids were compared, and similar themes were identified. Some themes were elicited more often from participants with no history, and some were more often from participants with a history. There were also some constructs elicited that were unique, as outlined below. The most common theme identified was related to being social, variations of *likes to socialise* vs. *prefers to be on their own* were found in 12 of the 17 grids; 62.5% of participants with no history elicited this construct and 78% of participants with a history elicited this construct. In two of the participant grids variations of this construct were elicited twice. In participant six's grid (no history), *introverted* was contrasted with *extroverted* and *happiest with one or two close friends* was contrasted with *prefers a large social group*. In participant nine's grid (history), *is really outgoing* was contrasted with *keeps to themselves* and *likes being in big groups of people* was contrasted with *likes being with close friends*. The second most common theme identified was related to having goals and being driven; variations of *is career focused* vs. *is happy to go with the flow* were found in nine out of 17 grids, 62.5% of participants with no history elicited this construct and 44% of grids from participants with history elicited this construct. This construct was not elicited more than once in any single grid.

Another theme that was frequently found was social maturity. Variations of ‘struggles with social cues’ contrasted with ‘is socially aware’ were found in seven of the 17 grids. Almost all the grids developed by participants with no history of NSSI had this construct elicited (6 out of 8; 75%), in contrast only one of the grids by participants with a history of NSSI had social maturity elicited (11%). This construct was not elicited more than one time in any single grid. Variations of emotionality were elicited in six of the 17 grids, for example *gets angry easily* vs. *does not show anger*. Three participants with no history of NSSI elicited this construct (37.5%) and three participants with a history of NSSI also elicited this construct (33%). This construct was elicited twice in two participant’s grids. *Is emotionally unstable* vs. *is emotionally balanced* was elicited by participant eight (history) in addition to *very cautious* vs. *is a risk taker*. Two constructs elicited from participant five (history) were also categorised into the concept of emotionality; *is dramatic* was contrasted with *downplays things* and *has quick mood changes* was contrasted with *always acts the same*. Despite these elicited constructs all being related to emotionality which is also a supplied construct, they are all different ways to explore this theme. The theme, active, was also elicited several times across the grids (6 out of 17 grids). Three participants with no history of NSSI and three participants with a history of NSSI elicited some variation of *enjoys doing activities* vs. *happy doing nothing*. Participant seven (history) viewed this theme in two different ways, firstly *is lazy* was vs. *hyperactive* and *enjoys doing activities* vs. *happy doing nothing*. Providing insight into the different ways being active can be construed. The theme of being an open person was elicited in a number of grids only by participants with a history of NSSI (33% of participants with a history of NSSI thought of this as a construct). Variations of this construct include *is private and keeps to themselves* vs. *open*. Participant three (history) had the concept of open elicited twice, *is open and honest* was contrasted with *is closed off and secretive*, *is willing to try new things* was contrasted with *is afraid to leave their comfort zone*.

Several other elicited constructs were grouped into themes, for example the two themes family and belonging were elicited in a number of grids, variations elicited for family include *has a good family support system* contrasted vs *has a dysfunctional family system* were elicited. Variations of belonging include *grew up close to their culture* contrasted with *grew up away from their culture*. Other dichotomous constructs elicited more than twice include *is creative* vs. *academic, interested in*

*animals* vs. *is cold to animals*, *love of travelling* vs. *prefers to stay home*, and *caring* vs. *selfish*.

Dependence, humour, and resilience were also constructs elicited twice across all grids. There were some other elicited constructs related to enjoyment of certain activities, for example has a love of movies was contrasted with will not watch movies (from participant one history). There were also some elicited constructs related to enjoyment of certain diets, for example *enjoys eating junk food* vs. *only eats healthy food* from participant (history).

Most of the themes identified contained elicited constructs from both participants with a history and participants with no history of NSSI. One theme that was identified frequently but was mainly only found in grids from participants no history of NSSI, was that of social maturity, 75% of participants with no history of NSSI had a construct elicited related to social maturity. Suggesting that participants with no history view this as an important factor in individual's lives, and participants with a history do not see this as much of an issue. Many of the themes outlined above are unique to each other and do not overlap with the supplied constructs. Emotionality is the only theme identified that has a commonality with a supplied construct, however each of the constructs elicited around the theme of emotionality were a different way of viewing the theme, this provides insight into other ways participants view this idea.

Some elicited constructs were quite strongly linked to supplied constructs. Suggesting that these constructs could also be useful to explore NSSI. For example, the elicited emergent pole grew up close to their culture was very closely related to had a very easy childhood. This means that the participant views those who have a difficult childhood as also not having a sense of belonging or learning about their culture. Suggesting that belonging is seen as a protective factor for traumatic experiences. The elicited implicit pole is unreliable, from participant seven (no history) was strongly associated several emergent poles from the supplied constructs. These include behaves impulsively, has had a difficult time growing up, and regularly consumes alcohol or drugs. This suggests that being unreliable and not having a strong work ethic is viewed as a potential outcome from being impulsive, having a traumatic history, and consuming alcohol and drugs. This construct was placed in the goals and driven theme and is potentially an important part of NSSI behaviour to explore.



Focus Cluster Analysis

Focus Cluster analyses were completed to explore the similarities between elements and similarities between constructs within each grid. Cluster analysis is an exploratory analysis technique used to identify similarities between objects, and cluster them together into groupings. Focus cluster analyses for participant four (no history), participant five (no history), participant four (history), and participant eight (history), are presented below (see Figures 1 – 4). Elements have been grouped together with other elements that are rated as similar, and the constructs have been grouped together with other constructs that are rated as similar.

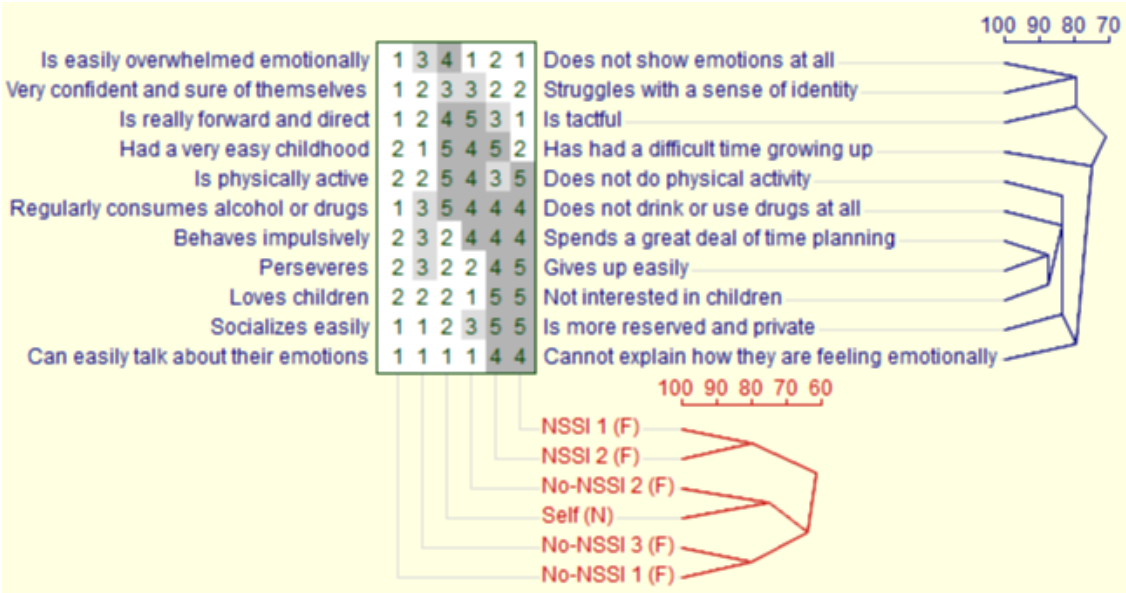


Figure 1. Focus Cluster Analysis of Elements and Constructs from Participant Four's grid (no history).

Focus cluster figures are a way to visually inspect groupings of elements and groupings of constructs, as is visible in Figure 1. Clear relationships between elements are visible in participant four's grid (no history). The participant sees one of the no-NSSI elements as very similar to themselves, the two NSSI elements are viewed as similar, and the remaining two no-NSSI elements are viewed as similar. The four elements with no history of NSSI are also clustered closer together than they are to the two NSSI elements. There are however some unusual clusters between constructs. For example, someone who behaves impulsively is also seen as someone who loves children and who perseveres. It would be useful to see if this participant rated a greater number of elements, the clusters would stay the same.

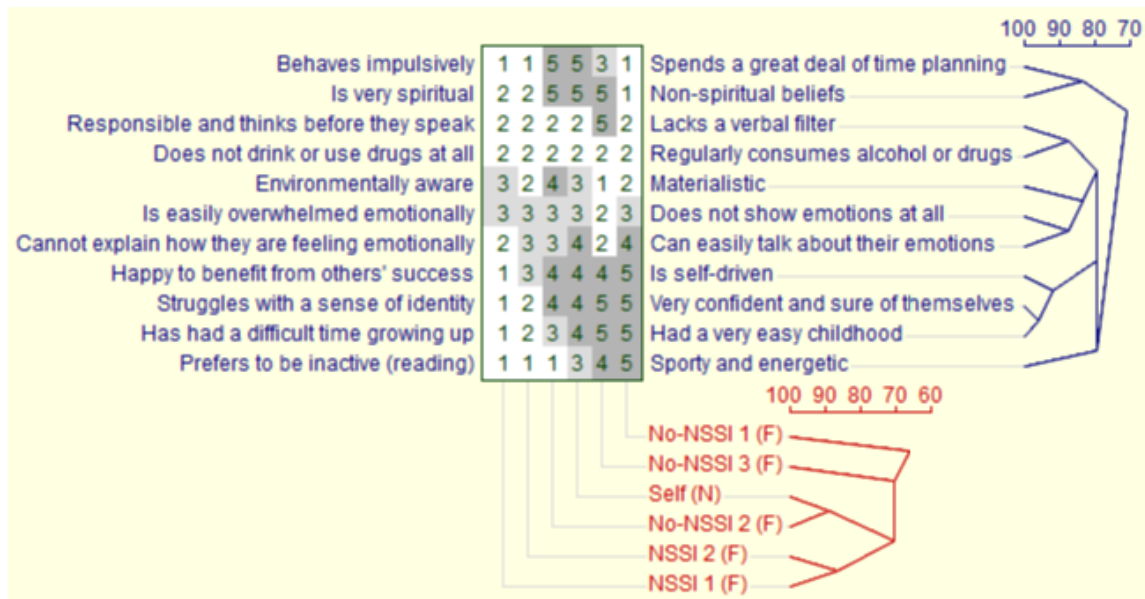


Figure 2. Focus Cluster Analysis of Elements and Constructs from Participant Five's grid (no history).

Both NSSI elements have been clustered closely together by participant five (no history). The participant has also themselves clustered with a no-NSSI element. The other two no-NSSI elements are viewed as quite different to each other, but also different to the other four elements in this grid. Most of the constructs in participant five's grid (no history) are clustered into pairs or threes. For example, *responsible and thinks before they speak* is clustered with *does not drink or use drugs at all*, suggesting participant five views a relationship between these two constructs. *Happy to benefit from others' success* is clustered closely with *struggles with a sense of identity* and *has had a difficult time growing up*, again suggesting a relationship seen between these three constructs. On the opposing pole of these constructs, someone who had an easy time growing up is seen as *self-driven* and confident and sure of themselves.

Figure 3 visually displays clusters between elements and constructs for participant four (history). This participant views themselves and an NSSI element as alike, the second NSSI element is clustered with the other two, however is not as closely clustered. It is viewed differently to the three elements with no history of NSSI. Two no-NSSI elements are clustered together and a third no-NSSI element is clustered with them, but not as closely. In this grid, participant four (history) has rated the emergent pole of an elicited construct *struggles to recover after problems* the same as they have rated emergent pole of a supplied construct *cannot explain how they are feeling emotionally*. Participant

four (history) also views has had a difficult time growing up in a similar way to struggles with a sense of identity indicating that this participant sees a close relationship between these two constructs.

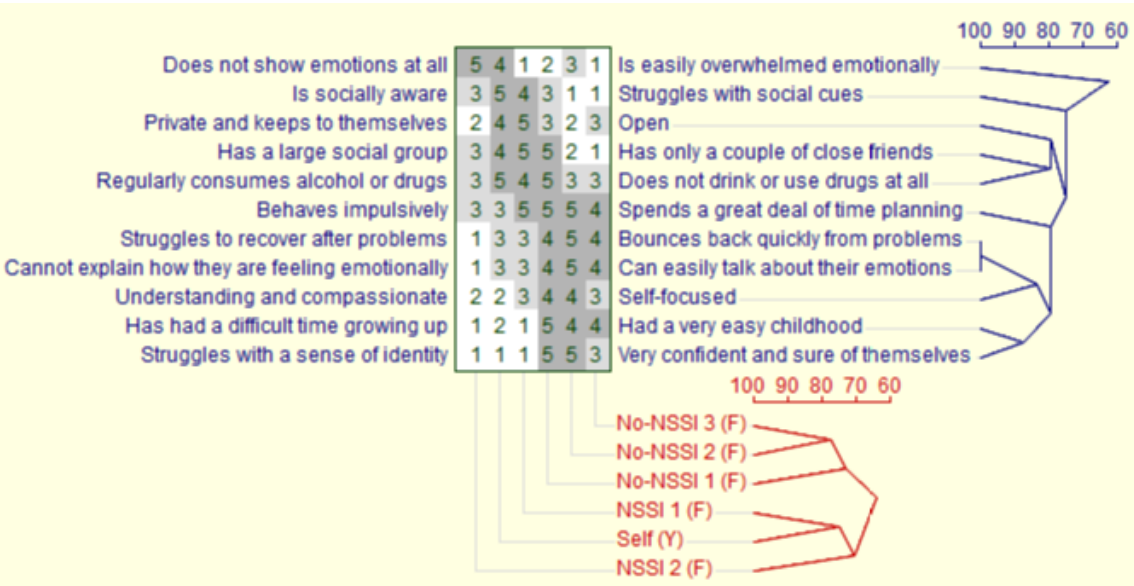


Figure 3. Focus Cluster Analysis of Elements and Constructs from Participant Four's grid (history).

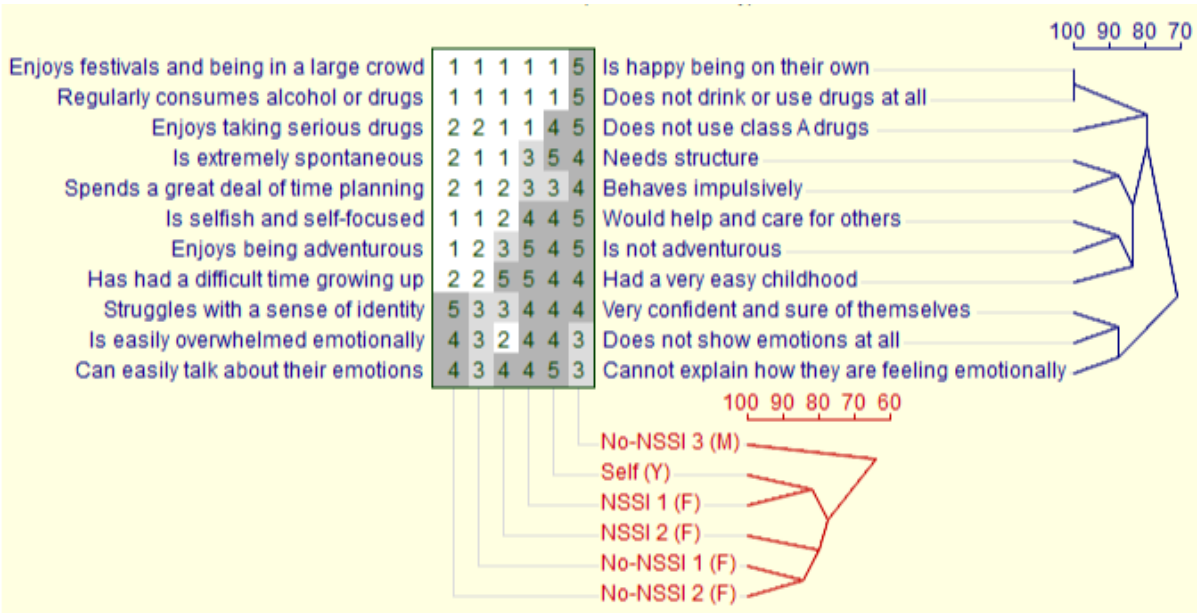


Figure 4. Focus Cluster Analysis of Elements and Constructs from Participant Eight's grid (history).

Participant eight (history) also views themselves and one of the NSSI elements as very similar. Two of the no-NSSI elements are also viewed as very similar. However, in participant eight's grid (history), the second NSSI element is viewed as like two no-NSSI elements and the third no-NSSI element is viewed as different to the other five elements rated in participant eight's grid (history). Participant eight (history) sees close relationships between many of the constructs in their grid. For

example, the participant views enjoys festivals and being in a large crowd and regularly consumes alcohol or drugs in the same way. Participant eight (history) also views the three emergent poles, struggles with a sense of identity, is easily overwhelmed emotionally, and can easily talk about their emotions in a very similar way. In this grid, the participant views being highly emotional and being able to talk about emotions as similar despite being placed at opposing poles of the constructs.

Results from the cluster analyses have found that those with a history of NSSI are typically clustered with others who have also engaged in NSSI, and those with no history of NSSI are clustered together with other people who have also never engaged in NSSI. Clusters between constructs are also visible as a result of cluster analysis, allowing for relationships to be seen between different constructs, as outlined above.

### **Principal Component Analysis**

PrinGrids are a visual representation of principal component analysis, they show the positioning of each element across the constructs and the nature of the clustering of the constructs. The percentage of variance found in component one, two, and three for the repertory grids did not significantly differ between the two participant types. The percentage of variance in component one ranged from 38.4% (participant 7 history) to 65.1% (participant 3 history). The percentage of variance in component two ranged from 18% (participant 3 history) to 33.9% (participant 7 no history). However overall there was no significant difference in mean percentage of variance between the two types of participants (history and no history; see table 11 & 12). This means that between 86.31% (history) and 91.74% (no history) of the variance in responses found in the grids can be attributed to three components; constructs can be divided into three groups and this will account for the majority of the variance.

PrinGrids are an excellent visual way to inspect the positioning of elements in relation to the different constructs in each grid. For example, participant 4 (history) viewed themselves and one of the NSSI elements in a similar way, and both close to the constructs does not drink or use drugs at all, *struggles with social cues, has only a couple of close friends, and is open* (see Figure 5). The other NSSI element in participant 4's (history) grid is located separately to the other elements and closely to

five out of the six supplied constructs. Two of the elements with no history of NSSI are located closely together, and a third element with no history is also located on their own. Suggesting that this participant with a history of NSSI sees one of the elements, also with a history, as like them and both as reserved and careful people. In contrast the other NSSI element is viewed as different to them and is viewed as a more stereotypical self-harming aligning them very closely with the supplied constructs about NSSI.

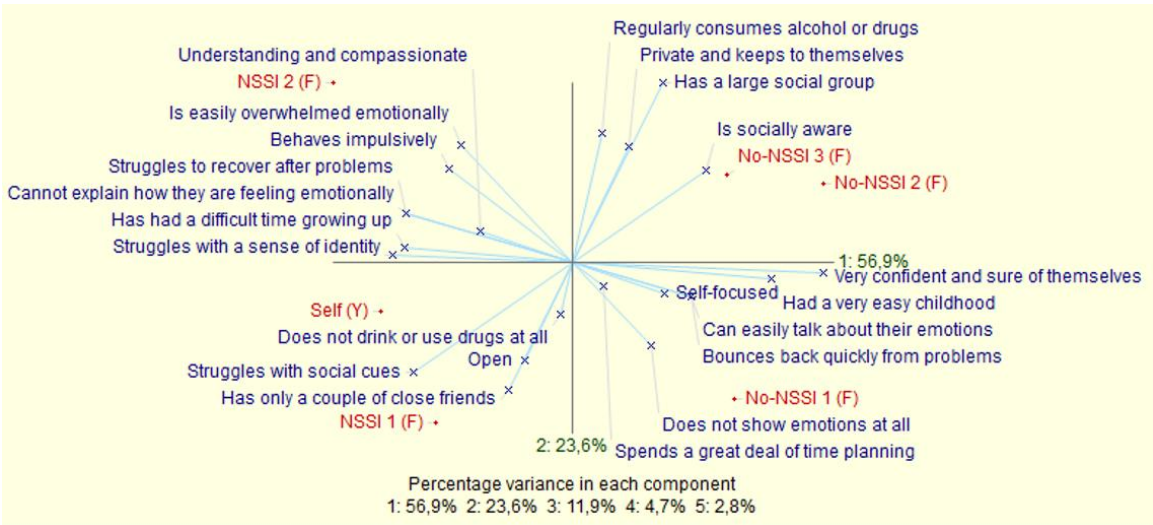


Figure 5. A Principal Component Analysis of Elements and Constructs from Participant Four's Grid (history). Note: (Y) in self = yes, has engaged in NSSI

Figure 5 is representative of almost all the grids from participants with a history of NSSI, where the participant views themselves as similar to one element with a history but quite different to the other element with a history. Two of the elements with no history are typically positioned together, and a third element with no history is positioned on its own. Only participant seven (history) viewed themselves as similar to an element with no history of NSSI.

On visual inspection of PrinGrids from participants with no history of NSSI, the positioning of elements varied more than grids from participants with a history. In 7 out of the 8 grids the participants with no history positioned themselves next to another element with no history of NSSI. However, in one grid, the participant viewed themselves as similar to an NSSI element (participant 6 no history) in addition to an element with no history (see figure 6).

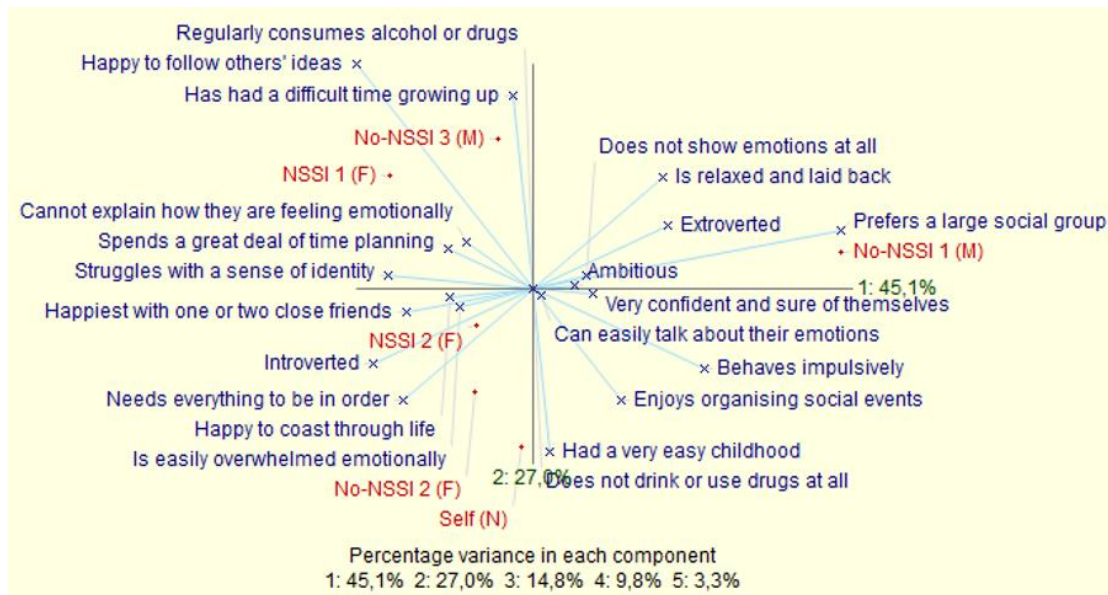


Figure 6. A Principal Component Analysis of Elements and Constructs from Participant Six's Grid (no history). Note: (N) in self = no has never engaged in NSSI

In the PrinGrid's produced from participants with no history of NSSI data, elements with a history of NSSI and elements with no history were often positioned together, which was not found in the grids from participant with a history of NSSI. This indicates that the participants with no history of NSSI do not view the constructs as defining when it comes to understanding the people that they know.

### Extremity Analysis

Evidence suggests that participants judge themselves and others more extremely on elicited constructs than on supplied constructs (Adams-Weber, 1979). Extremity analyses for all 17 grids were conducted through Idiogrid to see if participants rated their elicited constructs more extremely than the supplied constructs, that is, are participants more likely to rate the elements a 1 or a 5 on the constructs they came up with than with the supplied constructs. This analysis was conducted to see if participants viewed the elicited constructs as more personally meaningful. An extremity analysis revealed that all eight participants with no history of NSSI rated their elicited constructs more extremely than they rated the supplied constructs. An extremity analysis also revealed that 5 out of 9 participants with a history of NSSI rated their elicited constructs more extremely than they rated the supplied constructs.

The greatest difference between extreme ratings for supplied and elicited constructs was found by participants with no history.

### **Constriction in Grids**

It has been suggested that individuals with a history of NSSI use constriction when they rate themselves, that is, they will rate themselves somewhere in the middle on each construct, and they will rate the other elements in their grid with more variance (Padoa, 2008). Constriction is when a person narrows their perceptual field to minimise apparent incompatibilities (Bannister & Fransella, 1971). Repertory grid analysis can be used to measure constriction, as midpoint ratings of elements are most often selected when constriction is occurring. This reflects an inability to choose between construct poles, demonstrating a constricted view of the elements (Padoa, 2008). Results found that participants with a history rated themselves in the middle of constructs (gave themselves a 3) slightly more than 15% of the time. In contrast participants with no history rated themselves in the middle of constructs (3) slightly more than 28% of the time. Based on these findings there is no indication of constriction being used by participants with a history of NSSI in the current research. One possible reason for not finding constriction in the current research could be due to participants with a history of NSSI, no longer engaging in the behaviour, or have not engaged in it for at least 6 months prior to the interview.

### **Reasons why Participants Stopped Engaging in Non-Suicidal Self-Injury**

There was a question in the demographics form, where participants with a history of NSSI were asked what they attributed the reason to no longer engaging in NSSI (see responses in Table 14). Participants were provided with the below five options and were asked to tick one or many of these, if they did not attribute their stopping to the first four options, they were asked to write their own reason



Table 14.

*Reasons Participants with a History of NSSI Attribute to Stopping*

Reasons for stopping NSSI behaviour	Number of participants that attributed each stopping for each reason	
A. Have someone close that understands who you can talk to	5	(P1-Y, P3-Y, P4-Y, P8-Y, P9-Y)
B. Have learned on your own to do other things instead of NSSI	4	(P2-Y, P5-Y, P7-Y, P8-Y)
C. Just have not felt the need to do it	4	(P5-Y, P6-Y, P7-Y, P9-Y)
D. Have had counselling and feel like you now have the skills to cope with your feelings without needing to engage in NSSI	6	(P1-Y, P2-Y, P6-Y, P7-Y, P8-Y)
E. Some other reason	1	(P7-Y)

Note. P = participant, number (i.e., 1, 2,3) = participant number, Y = history of NSSI

Each of the four supplied reasons for stopping were frequently endorsed by participants with a history of NSSI. Eight out of nine participants attributed more than one reason to stopping their NSSI behaviour. Suggesting that a combination of having someone close that understands, learning alternative coping skills, and having counselling is important for stopping NSSI behaviour. Despite the reason *have just not felt the need to do it* being endorsed by four participants, it was always endorsed in addition to another reason, suggesting that participants do not just suddenly stop doing it, there needs to be other factors involved in stopping. Participant four (history) was the only one to provide a single reason for stopping NSSI, *have someone close that understands who you can talk to*. Suggesting that, for participant four (history), this alone was enough to stop their behaviour. The most frequently endorsed reason for stopping was *have had counselling and feel like you now have the skills to cope with your feelings without needing to engage in non-suicidal self-injury*. which suggests most participants they did require a clinical intervention to aid in stopping their behaviour, again supporting the idea that individuals do not typically just stop the behaviour, they need support from a variety of sources to help them. Only one participant wrote an additional reason they believed they no longer engaged in NSSI, which was ‘everyone was judgemental and used it against me.’ Indicating that one of the reasons that participant seven (history) stopped engaging in NSSI was because they were peer-pressured into stopping. These findings support the need to provide effective support services and interventions for young people who engage in NSSI and for their peers and family members. Peers and family members of those who engage in NSSI need to understand what the individual is experiencing



so they are not angry or force the individual to stop the behaviour out of fear, and they are able to provide a caring and supportive relationship for the individual.

## **Discussion**

The aim for this current research was twofold, firstly to see what researchers have to say about NSSI behaviour and how lay views (the views of the participants) align with these views or if the participants view these individuals in a completely different manner. Secondly, this research aims to see if those with a personal history of NSSI respond in a different way to those with no personal history.

### **How Participants' Views Align with Researchers' Views**

Researchers have discovered that a combination of risk factors contribute to the development of NSSI behaviour. This current research explores issues of identity formation, impulsivity, emotionality, traumatic history, substance use, and alexithymia. Swannell and colleagues (2012) suggest a person struggles to form a strong identity when experiencing low self-esteem and high levels of self-criticism. This current research confirms these findings. When exploring ratings from the construct of identity formation, all participants were found to view people they know, who they believe have engaged in NSSI, as more likely to struggle with their identity than as a confident and self-assured person. Struggling with one's identity was also often viewed very closely with being very emotional, having a traumatic history, and having difficulties explaining how one feels emotionally.

When exploring the ratings on impulsivity from the supplied constructs, participants with a history of NSSI were found to view the people they believe have engaged in NSSI as more likely to behave impulsively than to be reliable and predictable. However, participants with no history of NSSI viewed those they believe have engaged in NSSI as more likely to be reliable and predictable, whereas they viewed themselves as more impulsive. In addition to the mixed findings in the current research, this construct also has mixed support in literature. Some research suggests that individuals who engage in NSSI are more likely to do it impulsively (Adler & Adler, 2011; Garisch & Wilson, 2015; Skegg, 2005; Wilson et al., 2015), other research has found impulsivity to be a factor only in certain circumstances, acting rashly in the context of negative emotions (Hamza et al., 2015). All participants did however view the individuals they believed to have engaged in NSSI as more impulsive than the people they know who they believe have never engaged in NSSI. These views are similar to the cry for help category termed by Padoa (2008). Padoa (2008) found that those who engaged in self-harm as 'a cry for help' were at a significantly greater risk of impulsive behaviour and lethality than those who engaged in self-harm as a 'search for self.' Those who engaged in self-harm as a search for self engaged in the behaviour more frequently but at lower levels and had carefully planned out actions. They do not feature in this current research possibly because those that engage in self-harm as a

‘search for self’ are potentially more secretive people and are therefore much more likely to go undetected.

When exploring emotionality all participants were found to view individuals they believe to have engaged in NSSI as more likely to be easily overwhelmed emotionally than to not show any emotions. Participants’ views were aligned with Klonsky and Muehlenkamp (2007) who say people who engage in NSSI experience more intense and frequent negative emotions in their daily lives than those who do not engage in NSSI, as engaging in this behaviour may temporarily relieve emotional distress. Interestingly, participants with no history viewed individuals they believe have engaged in NSSI as more likely to be highly emotional than participants with a personal history viewed them, however this difference was not significant. As self-harming behaviour is consistently associated with BPD, it is not surprising that all participants viewed people who engage in NSSI as highly emotional, as those diagnosed with BPD are described as being highly dramatic and emotional. This is a relationship often considered to go together.

When exploring traumatic history all participants were found to view the individuals they believe to engage in NSSI as more likely to have suffered traumatic experiences than to have had an easy time growing up. The relationship between trauma and NSSI is not always direct, and an individual who engages in NSSI has not necessarily suffered trauma (Adler & Adler, 2007; Klonsky & Muehlenkamp, 2007). Although the findings in this current research align with literature that suggests childhood trauma disrupts normal development of language to share emotional experiences, which requires the child to process trauma on a nonverbal level, for example cutting (van der Kolk et al., 1996; Yates, 2009).

When exploring substance use only participants with a history of NSSI were found to view those they believe to engage in NSSI as more likely to regularly consume substances than to be completely abstinent. Participants with no history of NSSI viewed those they believe to engage in NSSI as neither more nor less likely to consume substances, they viewed them in between the two sides of the construct. Literature is varied on how this relationship is formed nevertheless participants with a history of NSSI’s views were aligned with the literature that suggests that individuals who self-injure also tend to use substances and alcohol in their attempts to cope (Stewart et al., 2014). Participants’ views aligned alongside Williams and Hasking (2010) who hypothesised that risky drinking behaviour makes the relationship between psychological distress and NSSI stronger. For example, participants closely linked behaving impulsively with regularly consuming substances. Consuming substances was also closely linked with the inability to describe one’s emotions (alexithymia).

When exploring alexithymia all participants were found to view individuals they believe to engage in NSSI as more likely to have difficulty describing their emotions than to be comfortable talking about how they feel. This current research has also found participants’ views of people who engage in NSSI align with Klonsky and Muehlenkamp (2007) who explain that many people who self-

injure have difficulty with their experience, awareness, and expression of emotions. They also suggest that individuals who engage in NSSI have difficulty identifying or understanding their emotions (alexithymia). Previous research has found that measures of alexithymia significantly correlate with NSSI (Cerutti, Calabrese, & Valastro, 2013). The findings from the current research and the previous pilot study align with what existing research has also found, these results provide evidence to support that ‘lay’ people share the views uncovered by researchers and professionals about factors associated with NSSI.

### **Differences in how Participants with a History of Non-suicidal Self-Injury view the Behaviour**

Interestingly participants with a personal history of NSSI viewed individuals they believe to engage in NSSI as more likely to struggle with their identity, be more impulsive, consume more substances, and have greater difficulty talking about how they feel than participants with no personal history. In contrast, participants with no personal history view individuals they believe to engage in NSSI as more emotional and more likely to have experienced trauma than participants with a personal history. Both types of participants have observed the difficult characteristics of NSSI offered by the supplied constructs. It is to be noted however that both types observed different characteristics. Those who have a history have possibly observed certain characteristics as a result of their experience positioning them as particularly good peer support. Despite these differences not being statistically significant, they are still helpful in understanding NSSI behaviour from the two different perspectives. The results suggest that ‘lay’ people share similar views to each other concerning those who engage in NSSI. They do however differ concerning the same aspects that literature has also discovered to have varying results.

Both participant types viewed people they know who they believe engage in NSSI and people they know who they believe have never engaged in NSSI as statistically different populations when looking at the concept of identity formation. This was the only construct where both participant types saw a difference between populations, suggesting that both types of participants agree that identity formation is a major factor in the lives of those who engage in NSSI. This is a very strong construct where both types of participants agree. Those who engage in NSSI are viewed as having greater difficulties forming a strong identity than those who do not engage in NSSI. Difficulty forming a strong identity is consistently viewed as a relevant factor in the lives of those who engage in NSSI, suggesting that identity formation could prove to be useful to explore when helping those who engage in NSSI. Interventions with a focus on helping the individual form their own identity and sense of belonging should help them understand who they are and where they fit into the world around them.

Participants with no personal history of NSSI viewed the two types of people, those who engage in NSSI and those who do not engage in NSSI as statistically different in relation to both constructs traumatic history and alexithymia. These findings suggest that those who have never engaged in NSSI themselves understand those who engage in NSSI to be greatly impacted by a

traumatic history and alexithymia. Participants who have never engaged in NSSI viewed those who have, as more likely to have suffered a traumatic experience and more likely to struggle to talk about how they feel emotionally than those who do not engage in NSSI. Research suggests that these two concepts are also closely related, those who suffer trauma in their lives often have difficulty verbally sharing their feelings, and do not develop the skills to talk about what they are going through. However only the participants who have never engaged in NSSI view these two factors as impacting those who engage in NSSI, suggesting that this may be a stereotypical view of the behaviour, that those who have experienced NSSI themselves do not share. Despite research finding that many who engage in NSSI have suffered a traumatic history, these findings suggest that a traumatic history is not always present, as also found by Adler and Adler (2007), so it should not be assumed that those who engage in NSSI are doing it as they suffered a great trauma, this assumption may not be helpful for the individual and may cause further issues.

Participants who have personally engaged in NSSI viewed those who engage in NSSI and those who do not engage in NSSI as statistically different in relation to impulsivity and emotionality. These findings suggest that those who have engaged in NSSI themselves understand others who have also engaged in NSSI to be impacted greatly by impulsivity and emotionality. That is, they are viewed as more impulsive and highly emotional than those with no history. Reasons for this may be that those who have been through NSSI, have experienced these factors themselves, and do not see other people who have never experienced NSSI as acting impulsive and highly emotional, something they attribute only to NSSI engagers. According to the DSM-5 (APA, 2013), symptoms of BPD include extreme or inappropriate emotional reactions and highly impulsive behaviour, both factors that those with a history of NSSI attribute to NSSI behaviour, indicating that there could be a continuum relationship between NSSI and BPD. Instead of NSSI featuring as a symptom of BPD, NSSI could be viewed at one end of the personality disorder continuum, and diagnosable BPD could be at the other end. It is interesting that this view comes from those who have experienced the behaviour themselves and not just observable by onlookers.

All participant types did not see any significant differences in relation to substance use, this suggests that participants view substance use as a factor that features in everyone's lives, regardless of whether they engage in NSSI or not, therefore suggesting that it may not necessarily be useful for understanding NSSI. Literature suggests substance use and NSSI are both ways individuals use to calm high levels of negative emotions. The connection between substance use and NSSI may therefore be that both types of behaviours are engaged in by both populations for the purpose of calming negative emotions. It would therefore be pertinent for detection purposes for those who engage in substance use to be screened for NSSI behaviour. In the current research a close relationship was found between impulsivity and substance use, indicating that there may be a reciprocal relation between impulsive behaviour and substance use, which in turn can influence NSSI engagement. These

observations signify substance use should not be disregarded altogether, however in the current research, results indicate that participants did not view it as particularly relevant.

### **Relationship trends found in participant grids.**

More than half of the relationships explored by participants with no history of NSSI, between themselves and people they know who have also never engaged in NSSI, were positive suggesting that they were more often viewed as alike than either not correlated or different. In addition, more than half of the relationships explored by participants with a history of NSSI, between themselves and people they know who have also engaged in NSSI, were positive, again suggesting that those who have engaged in NSSI more often see themselves as similar to other people they know who have also engaged in NSSI than as not correlated at all or opposing to themselves.

In contrast, less than half of the relationships found between people who have never engaged in NSSI were positive and less than half of the relationships found between people who have engaged in NSSI were positive. This means that participants were more likely to view themselves as like others who share their history, than they were to see similarities between other people in their grid. This could be an important finding; however, this also could be due to the limitations of the research. When participants thought about people they knew well, it is assumed that they shared a relationship together and are thus more likely to see commonalities between themselves and those people. In contrast, the other people featuring in the grid may not share a relationship and may therefore be more difficult to see commonalities between them.

### **Elicited constructs.**

Differences were found within the constructs that were elicited from participants. Both participant types were found to rate their elicited constructs more extremely than the supplied constructs, indicating that the elicited constructs were more personally meaningful for them, as suggested in literature. Constructs elicited from participants were categorised into themes. Some themes were more frequently elicited from those with a history, and other themes were more frequently elicited from those with no history. Both types of participants viewed social interaction and social engagement as important, however slightly more participants with a personal history viewed this theme as meaningful. Both types of participants also viewed having goals and being driven as important, however slightly more participants with no personal history viewed this as meaningful. Most participants with no history of NSSI viewed social maturity as important, only one participant with a history of NSSI thought of this theme in their grid. This could be due to social maturity playing a larger role in the lives of those with no history of NSSI and is therefore more likely to come to mind when thinking about constructs. Emotionality and being active were evenly elicited from both types of participants, indicating that these themes can be important for both participant types.

Only participants with a history of NSSI thought about the themes, being open, being caring, and loving animals, suggesting that these themes could be an area of focus for individuals with a history of NSSI only. In contrast family, belonging, and creativity were elicited more often from participants with no history of NSSI, suggesting that these themes are more important factors for them. Interestingly being open, caring, and loving animals are all related to a giving and caring for others. Family and belonging are more related to being supported by others or being given to. Highlighting possible differences between those who engage in NSSI and those who do not engage in NSSI. Perhaps those who engage in NSSI experience less family support and belonging in their lives however see giving to others as important. In contrast those who have never engaged in NSSI may have experienced a greater level of support in their lives from family and see this as a key aspect of life. NSSI has often been linked to BPD, however based on the above findings, those who engage in NSSI tend to be more focused on helping others, and individuals diagnosed with BPD tend to be self-focused. Highlighting that those who engage in NSSI can be different to those diagnosed with BPD and should not necessarily be viewed as the same population. Constructs related to engaging in certain activities and behaviours were elicited most often from participants with a history of NSSI. These participants may have developed problem solving skills, as a result of their prior NSSI engagement, to learn alternative strategies and activities to engage in, instead of NSSI, and now see these activities as important in their lives, as they may be things that have helped them get through their NSSI engagement.

Constructs elicited from participants that could be useful to understand further in relation to NSSI behaviour include not having a sense of belonging and being unreliable and having a poor work ethic. Firstly, not having a sense of belonging was closely related with many of the negative factors associated with NSSI, in turn, having a sense of belonging and engaging with one's culture was found to be closely related to a range of positive outcomes. Highlighting the potential protective role belonging can have on young people, in turn making them less likely to start engaging in NSSI. If individuals are unable to position themselves in their world, and develop a sense of who they are, including their own identity, they are viewed as more likely to engage in NSSI and struggle with other negative outcomes linked to NSSI behaviour. Which leads to the next elicited construct that would benefit from further research. This current research found that engagement in NSSI was linked with being seen as unreliable and having a poor work ethic. Highlighting a potential negative outcome that is associated with NSSI that was not already included in the current research and could be an area to explore to see if this is an outcome that occurs for people who engage in NSSI or if this is just the view of a few individuals. Exploring both, a sense of belonging as a protective factor for NSSI, and unreliability and poor work ethic as an outcome of NSSI could prove useful towards understanding NSSI.

## **Other Important Factors**

### **Heterogenous nature of NSSI.**

The current research and the pilot study (McKegg, 2016) found that participants tend to think of two quite different people when they think of people they know who they believe engage in NSSI. Suggesting that people who engage in NSSI are not a homogenous population, and that despite being viewed as different to others who do not engage in NSSI, they are also typically seen as different to each other. Previous research has found that individuals engage in NSSI for a variety of reasons and individuals benefit from NSSI in a variety of ways. This combined with the current research findings highlight the importance of developing responsive interventions that are catered to the individuals needs, as opposed to a one-size-fits-all approach to stopping NSSI.

### **Commonality between current research and pilot study.**

As a result of the findings from the pilot study, the way the constructs were presented to participants was changed in the current research. In the pilot study participants were first asked to think of five constructs and were then supplied with an additional six constructs. In the pilot study participants expressed difficulty understanding what kind of constructs the researcher wanted them to think of as they felt the process was very broad. Because of this, the current research first supplied six constructs, then elicited five from each participant. Having the supplied constructs presented first helped align participants with the topic, feedback was positive. There were concerns that providing the supplied constructs first could result in a priming effect on the participants, however the types of constructs elicited from participants in the current research were similar to the types of constructs elicited from participants in the pilot study. Suggesting switching around the presentation of the constructs did not negatively impact on the results, however, did make things easier for participants to understand the process. In the pilot study, one of the supplied constructs were reversed, the positive side of the construct was featured at the emergent pole and the negative side of the constructs was at the implicit pole, the other five constructs all had the negative sides of the construct at the emergent pole. The pole of the construct related to risk factors and negative outcomes of NSSI is referred to as the negative side. This tended to confuse participants who found themselves providing ratings in the opposite way they intended to, giving a 1 when they meant 5. This order also had an impact on the way information was depicted visually on grids. In this current research participants were provided with supplied constructs first and clearer instructions on implicit and emergent poles eliminating these issues from featuring.

Despite the above changes being made between the pilot study and the current research, similarities exist. For example, two of the participants that participated in the pilot study (McKegg, 2016) also participated in the current research (participant 5 no history & participant 7 no history). In both studies these two participants viewed individuals they believe to engage in NSSI more closely

towards the negative side of each construct supplied to the participants. Three themes were elicited from the two participants in both the pilot study (McKegg, 2016) and the current research, being social, being active, and family were all elicited by these participants in both studies. The other constructs elicited in the pilot study were able to be categorised into the themes identified in the current research. Despite results from only two participants being comparable across the two studies, findings indicate that there are certain constructs that remain stable over time, and other constructs that develop and change as other factors feature in the participants lives. This is an example of the way individuals are constantly changing and revising their templates to understand their world. However, the way both participants viewed those who engage in NSSI remained stable across both grids. Indicating that these views are a reliable measure.

### **Reasons participants attribute to stopping non-suicidal self-injury.**

A separate question was presented to participants who had personally engaged in NSSI to understand why they no longer engaged in the behaviour. The most common reason given was that they had received counselling and felt like they had learned the skills required to no longer need to engage in the behaviour. This suggests that for many people, therapeutic intervention is necessary for them stop engaging in NSSI. Despite previous research finding that health professionals did not feel adequately prepared to help young people who engage in NSSI, this current research suggests that participants did find them helpful for stopping their NSSI behaviour. Despite no 'gold-standard intervention' currently available for people who engage in NSSI, the therapeutic relationship developed between the counsellor and the participant may have played an important role in leading to change. Another finding in the current research was that almost all participants attributed more than one reason to why they no longer engaged in NSSI, suggesting that a variety of factors contribute towards them stopping, a single reason on its own is not necessarily enough. For example, a combination of a having a close friend that understands and having counselling, can lead to change. Having a close friend that understands may not be enough for many to stop the behaviour.

### **Participant feedback.**

Despite difficulty recruiting participants, each of the individuals who participated in the research expressed interest in the topic and the reasons behind conducted the research. Participants engaged well with the repertory grids and described enjoying themselves, comments like 'this is actually fun' were made by several participants. Due to the way the repertory grid is developed, the questions and processes involved do not require the participants to dwell on experiences of self-harming behaviour, in contrast participants are required to think of things that set different types of people apart, many of which are linked to risk factors for NSSI. The process was more an academic and process driven experience than an emotional one for participants.

### **How these Findings Relate to Future Interventions and Health Promoting Initiatives**



Identity formation was the strongest construct to be consistently associated with NSSI. Future research to develop interventions and health promoting initiatives could benefit from exploring the relationship between lacking a sense of identity and subsequent NSSI behaviour. Findings from this research suggests that exploring practical ways to help young people develop their own identity, to help them feel like they belong in the world, and to help them learn about their culture could lead to effective prevention and intervention protocols.

Health promoting initiatives developed to target those around individuals who engage in NSSI, for example their peers and family, that focus on identity and belonging could be particularly useful. Initiatives that highlight the importance of connecting with family and belonging to something. Initiatives that provide practical guidelines for those close to people who engage in NSSI, to allow family and peers to connect with the individual in a helpful and supportive, as opposed to a fearful or angry way, leading to further disengagement from family and peers. There is currently very little information available to family members and peers of those who engage in NSSI about the best way to help them, many of the initiatives and readily available information is focused on how to help a suicidal person, and these responses are not necessarily always helpful. As identity problems are strongly linked with NSSI behaviour, there needs to be a greater focus on identity development for adolescents within a New Zealand context, especially around the potentially protective role of belonging and culture.

Previous research has found the use of lay experts to be particularly helpful when training health professionals on self-harming behaviour. The current research also found that lay experts, people that have experienced the behaviour, are in a good position to provide insight into what individuals are experiencing. Interventions that involve a collaboration between researchers, clinicians, and those with a personal history of NSSI could prove effective. Incorporating the opinions and experiences from lay experts could result in an intervention that is responsive to the needs of the individual seeking help. If those seeking help have a good experience the first time they reach out, they will be much more likely to seek help in the future and continue engaging with the experience.

## **Limitations**

A range of limitations were identified in the pilot study that was conducted to see if exploring constructs about NSSI using repertory grid analysis could be a useful technique for understanding NSSI behaviour. These limitations included a small sample size, a lack of ethnic diversity, and the average age of participants being older than what was desired. Due to the identification of these limitations, the current research was able increase the sample size, minimise additional variables (e.g., males and females), and increase ethnic diversity. The current research had a mix of New Zealand European and New Zealand Māori participants. The inclusion of Māori participants has resulted in constructs being elicited that were not found in the pilot study, these have a collectivist focus around culture and belonging, which are both factors that could prove useful in understanding NSSI.

The current research also included participants with a personal history of NSSI, whereas the pilot study did not. Due to ethical concerns the current research was not able to interview participants at an adolescent age, resulting in the average age of participants in both studies being very similar. Accessing an adolescent population, those most likely to be going through the NSSI experience and most likely to be surrounded by others engaging in NSSI could generate different results. The population accessed in the current research were most often individuals who had friends during high school who engaged in the behaviour and were trying to remember back to those years as opposed to it currently occurring in their lives.

Due to the nature of the research, the researcher was only able to conduct the interviews in person at an agreed location as opposed to online. Several individuals were interested in conducting the interview, however were only able to connect online. This limited the number of individuals that participated in the research. It is also possible that if the research was conducted online, in a more private and anonymous way greater range of participants may have been interviewed, especially those who are very private about their NSSI behaviour. Surprisingly it was more difficult to recruit participants with no history of NSSI than those with a history. This could be due to the way the recruitment flyer was presented, when speaking with participants they described seeing the flyer and thinking that it was only aimed at people with a history of NSSI.

Element consistency and relationship consistency have been suggested as potential issues that arise when conducting repertory grid analysis (Slater, 1972). Element consistency refers to participants remaining constant over time in the way they apply the same constructs to the same elements. Relationship consistency refers to a consistency in relationships found between constructs. Both factors can be testing by completing the same interview on multiple occasions. This was not achieved in the current research however as two participants that were interviewed in the current research were also interviewed in the pilot study, findings to indicate that element and relationship consistency was found in both grids.

## **Future Research**

Suggestions for future research include conducting the same research again and recruiting participants an adolescent population as opposed to participants in their 20s. As adolescents are the age group most likely to be currently going through the experiences surrounding NSSI behaviour. In order to confirm that the findings in the current study are reliable, interviews with the same participants using the same supplied constructs over a period would allow insight to see if the participants' views and constructs change or if they are refined and developed over time. Despite the current research not being a pure replication of the pilot study, there were many commonalities, including two participants from the current research that also featured in the pilot study. Reliability was indicated; however, a direct replication of the current research would be useful to confirm that these findings are maintained over time.

Future research that focuses on the relationship between NSSI and having a sense of belonging, specifically within a New Zealand context and culture could prove useful. Research that explores protective effect that having a sense of belonging may have on NSSI engagement. Exploring belonging in relation to belonging to a family, to a culture, or belonging in a spiritual sense could all provide useful information. Another area that could be useful to explore, would be the potential relationship between NSSI, substance use, trauma, impulsive behaviour, and work ethic and reliability. Work ethic and reliability can greatly impact on an individual's ability to be successful. If a poor work ethic and unreliability are both outcomes of NSSI engagement, then understanding this relationship would prove useful to further build on what is currently known about NSSI.

Future research could look at developing health promoting initiatives around two constructs that NSSI participants viewed as important to NSSI but participants with no history did not see as relevant. Both impulsivity and emotionality were viewed as major factors in the lives of those who engage in NSSI, however participants with no history of NSSI do not view them this way. Developing an initiative that raises awareness about how impulsive behaviour and a great level of emotionality can impact those who engage in NSSI could be useful so those who engage in the behaviour feel understood.

## **Conclusion**

The current research aimed to explore the constructs and views held by young people about NSSI. Both females with no personal history of NSSI and females with a personal history were interviewed. Participants were asked to think of people they knew who they thought had engaged in NSSI, and people they knew who they thought had never engaged in NSSI. Participants were supplied with six constructs, all related to factors the researcher considered to be associated with NSSI. Participants also had several constructs elicited from them. All participants were found to view those who they believe to engage in NSSI closer towards the factors associated with NSSI than the other people they were thinking about, this aligns with what other research found. Issues forming an identity, highly impulsive behaviour, extreme emotionality, a traumatic history, substance use, and difficulties talking about one's feelings are all factors highly linked to NSSI. The construct found to be most closely linked with NSSI was identity formation, suggesting that identity formation or lack thereof plays a major role in the lives of those who engage in NSSI. A focus on developing adolescents' identity is needed.

Exploring the constructs participants hold about those who engage in NSSI has provided insight into factors that have not previously been explored in NSSI research. Within a New Zealand context, exploring the role belonging to a family, to a culture or a spiritual belonging can play in the development and maintenance of NSSI. Belonging could prove to be a strong protective factor for NSSI. The negative impact that trauma, substance use, impulsive behaviour, and NSSI can have on

subsequent work life, including work ethic and reliability is another area highlighted in the research that needs to be explored.

Despite many health professionals feeling like they are not prepared to effectively help young people who engage in NSSI, participants from the current research attributed stopping their behaviour, in part, to receiving counselling. Indicating that the role of counselling is still very important in young people's lives, and that despite NSSI often considered as a behaviour that people will just grow out of, almost all participants in the current research required health professionals to help them stop.

NSSI needs to be separated from suicidality, and information about the behaviour needs to be specific to NSSI, as opposed to self-harming behaviour in general, which is how it is most often provided in New Zealand. There are certain responses that are helpful for those who are suicidal and certain responses that are helpful for those who engage in NSSI. If a health professional thinks the individual is going to commit suicide then they will respond in a certain way, which may not necessarily be helpful for an individual who has no intent to commit suicide. This also may result in that individual feeling sidelined, like what they are going through is not important.

Many individuals who engage in NSSI do not disclose their behaviour to others, and those who do tend to describe their experience as negative, meaning they are less likely to seek help in the future. If the people these individuals are disclosing their behaviour to, know how to appropriately respond, it will make that individual more likely to seek help in the future. Findings from the current research suggest that lay experts, those who have engaged in NSSI themselves, are in a good position to provide insight into the behaviour. Interventions that incorporate the opinions of lay experts could prove particularly effective. If an individual feels like they are in a caring and responsive environment they are more likely to engage with the treatment.

The findings from the current study provide evidence to support the use of repertory grids to explore views of NSSI behaviour. Findings from the current study align with what previous research has found in relation to existing risk factors of NSSI. Adding to previous research, the use of lay experts to develop interventions could prove useful, exploring the protective role of belonging in relation to NSSI and exploring poor work ethic and reliability as outcomes of NSSI behaviour. Health promoting initiatives that provide practical guidelines for family members and peers of those who engaged in NSSI with a focus on NSSI specifically as opposed to self-harming behaviour in general is needed.

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## Appendices

### Appendix A.

#### Personal Disclosure

I have a personal history of NSSI, and my two closest friends while I was at high school also engaged in it. I had always been quite self-critical growing up, if I did something wrong, I had already reprimanded myself before anyone else had the opportunity to do so, so when I was told off for something, it was always double-dose of criticism. One of the key pieces of information I gathered while researching NSSI, is that people approach this behaviour from so many different backgrounds and experiences, however the key factor that is always the same, is people engage in NSSI because it makes them feel better emotionally, it relieves the emotional pain that they cannot seem to relieve in any other way.

NSSI was a big part of my adolescence, I was never diagnosed as depressed or any other mental illness. Like many who engage in the behaviour, I was never a statistic for NSSI. For a long time, I had blocked out my memories from that stage in life, however engaging in this research has encouraged me to think back on the inciting factors, my experience with health professionals, and what helped me to stop the behaviour. As mentioned before, I was always very self-critical, and if I did something that I was not happy with, I was very disappointed in myself. In high school, I had a group of friends, one of these friends had a family friend, who was male. This young male first showed interest in one of my friends, then moved to the next one, then moved on to me. I had never had a boyfriend or even had a male show interest in me, in that way. Things escalated and we ended up sleeping together in the house of one of the friends. Everyone found out, and I lost my relationships with those friends.

I think this was the inciting incident which lead me to explore the behaviour, it started with me sitting in a classroom during a lesson, with an opened staple, scratching it against the top of my hand until it started to bleed. I felt some sort of relief. This escalated to using a craft knife to cut my skin, I would create cuts in my arms, legs, and stomach, always in places people would not see. I never cut deep enough to require medical attention, however some were deep enough for me to still have scars more than 10 years later. For me, I did this to punish myself. Any time I did something I was not happy with, I would spend the day waiting until I had some privacy to cut myself again. I felt pro-active, like it was my special way of keeping myself in check. I often played with the concept of taking my own life, but the cutting was never an attempt on my life. For a lot of my adolescence, I was in a state where I felt so useless that there was really no point in my living, I felt like I was not adding anything to the world, rather just causing harm to everyone else. I felt like there was something deeply broken in me.

This was a behaviour I kept a secret for more than a year, I cut several times a week. On the outside I probably looked normal and happy enough, although my engagement in school work and other

activities greatly declined. A friend of mine noticed cuts on my legs and we had a discussion where I found out that she also engaged in cutting. Another close friend later during high school also was engaging in cutting, however this friend also had a couple of suicide attempts. She was much more open about the behaviour than the other friend, people knew about her doing it. However, I began engaging in the behaviour before I knew others around me were also doing it. Early on in my life, I decided that I was the only person I could turn to. I never sought help from my parents or my friends, instead I was the supportive friend for everyone else. I would not dare to burden my problems on anyone. I did not have the resources to deal with my emotions in any other way, NSSI was a tool I had at my disposal to release my emotional pain.

I remember I had a high school ball coming up and my mother and I sewed my ball gown together, which was sleeveless, of course she saw the cuts on my arms. She did not know how to deal with the behaviour, so she booked me in to see a doctor, I went along and showed him my cuts, he suggested I spend time outdoors, go for bushwalks and runs; that nature and physical activity are both very healthy. I tried to take his advice, and I think it did help, but I was still deeply disappointed in who I was, and continued to engage in the behaviour, but pretended to everyone else that I had stopped. Throughout this period in my life, I was sneaking out at night, meeting up with friends and engaging in risk taking activities, including driving dangerously, drinking and taking drugs. This further led to my negative attitude towards myself. I was engaging the behaviour, but also severely disappointed in myself for doing so.

I did see a counsellor once, but as I was a very emotionally closed person, in one visit I certainly was not able to open up. I did not reveal the NSSI behaviour to her, I just remember crying basically the whole time, and being really frustrated at myself for crying. I think it was difficult for me to expose my feelings, and so I did not want to return. I had been engaging in NSSI for almost three years, when I met someone who also appeared to have a darkness in him, we seemed to neutralise each other. I felt that he cared for me, and I had something positive in my life to live and try for. Eventually the need to engage in the behaviour decreased. Over our five-year 'on-again off-again' relationship, I matured and gained some better tools for dealing with my emotions. I learned that physical activity can do a similar job, for me if I messed up, I could go for a run, and intense short sprints helped me feel like I was clearing out the pain and disappointment, it was perhaps another form of punishment, but healthier.

The whole time I was engaging in NSSI, I would think 'what have I got to be sad about? I have never been abused, I have a loving family and friends.' Which I think made me feel more broken and more of a disappointment, because I had no real excuse for being sad. I still struggle to share with others how I am feeling, my natural inclination is to not want to burden anyone else with issues. As mentioned earlier, there seem to be many factors that lead to people engaging in NSSI, however for

me, I always did it to discipline myself, if I inflicted physical pain on myself, then I was 'paying' for my crimes. I felt better after I 'paid' for my crimes, so I kept doing it. It solved a problem for me.

I did not always want to go down the path of psychology however I have always been puzzled by how humans work (myself included). I knew I wanted to help people, so I started training as a nurse. Very early on, I realised that my interests did not lie with the physical body, but more in the way people think and behave, which for me equalled to training to be a psychologist. Throughout my undergraduate degree I was interested in all things to do with psychology, it was all so fascinating. I started my honours year and had to complete an honours research report. I knew I wanted to do something around identity development, as that was something I personally struggled with, I surrounded myself with other people and took on their personalities without ever forming my own sense of self. I talked to Dr John Fitzgerald who suggested exploring how people view those who engage in NSSI. I liked the idea but did not personally connect myself to the topic. However now after spending a second year on the topic, I have finally allowed myself to connect to it. This is a behaviour that I had a major issue with personally, and I want to be able to use my personal experience, my research skills, and my caring personality to be able to help other young people with this behaviour.

Despite having a personal experience with the behaviour, I am approaching this research from an observer's perspective, I have not made my participants aware that I have a personal history of NSSI. Although if they had asked, I would have told them. I did not want to influence either participant type's responses.

Appendix B  
Participant Consent Form



## Exploring the constructs young people hold about non-suicidal self-injury

### PARTICIPANT CONSENT FORM: INTERVIEW

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

I agree that anonymized sections from the transcript of my interview may be used in reports, publications and presentations arising from the research.

☐ Tick box if you would like a copy of the research study summary report sent to you when it is available. *If yes, please provide an e-mail address:*

\_\_\_\_\_

I agree to participate in this interview under the conditions set out in the Information Sheet.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Full Name - printed \_\_\_\_\_

## Appendix C

### Participant One Grid (no history)

Emergent Pole (1)	No-NSSI.1F	No-NSSI.2F	No-NSSI.3M	NSSI.1M	NSSI.2F	Self-N	Implicit Pole (5)
Struggles with a sense of identity (s)	5	3	5	4	5	5	Very confident and sure of themselves (s)
Behaves impulsively (s)	4	2	1	1	3	1	Spends a great deal of time planning (s)
Is easily overwhelmed emotionally (s)	4	2	5	5	1	4	Does not show emotions at all (s)
Has had a difficult time growing up (s)	5	2	4	1	2	5	Had a very easy childhood (s)
Regularly consumes alcohol or drugs (s)	4	4	5	1	3	3	Does not drink or use drugs at all (s)
Cannot explain how they are feeling emotionally (s)	4	5	5	1	3	4	Can easily talk about their emotions (s)
Is really fit and active	1	1	5	3	2	5	Does not care for fitness
Is very creative	1	4	2	5	4	1	Is analytical
Is extroverted	4	1	1	5	4	4	Is introverted
Is always happy and positive	1	1	1	5	3	2	Is always negative
Really likes technology	2	4	1	3	5	1	Has no interest in technology

## Appendix D

### Participant Two Grid (no history)

Emergent Pole (1)	No-NSSI.1F	No-NSSI.2M	No-NSSI.3M	NSSI.1F	NSSI.2F	Self-N	Implicit Pole (5)
Struggles with a sense of identity (s)	5	4	4	3	2	4	Very confident and sure of themselves (s)
Behaves impulsively (s)	3	2	2	5	5	2	Spends a great deal of time planning (s)
Is easily overwhelmed emotionally (s)	3	4	4	3	2	4	Does not show emotions at all (s)
Has had a difficult time growing up (s)	3	4	2	5	2	3	Had a very easy childhood (s)
Regularly consumes alcohol or drugs (s)	4	2	2	2	3	3	Does not drink or use drugs at all (s)
Cannot explain how they are feeling emotionally (s)	3	3	2	2	3	3	Can easily talk about their emotions (s)
Has mental health issues	5	5	5	4	2	5	Is mentally strong
Has a good relationship with their parents	3	3	3	2	4	3	Has a strained relationship with their parents
Has good social skills	1	1	2	1	4	2	Is uncomfortable in social situations
Has a good support network	1	3	3	1	4	1	Has a poor support network
Has financial security	2	2	3	1	2	2	Has financial struggles

## Appendix E

### Participant Three Grid (no history)

Emergent Pole (1)	No-NSSI.1F	No-NSSI.2F	No-NSSI.3M	NSSI.1F	NSSI.2F	Self-N	Implicit Pole (5)
Struggles with a sense of identity (s)	2	4	4	2	2	3	Very confident and sure of themselves (s)
Behaves impulsively (s)	3	4	2	4	4	3	Spends a great deal of time planning (s)
Is easily overwhelmed emotionally (s)	1	3	3	2	4	1	Does not show emotions at all (s)
Has had a difficult time growing up (s)	4	2	4	1	4	4	Had a very easy childhood (s)
Regularly consumes alcohol or drugs (s)	4	2	2	4	2	2	Does not drink or use drugs at all (s)
Cannot explain how they are feeling emotionally (s)	3	3	3	4	2	2	Can easily talk about their emotions (s)
Is artistic and creative	2	1	5	2	3	4	Is logical and mechanical
Always calm and chill	2	2	1	2	2	4	Is high strung
Is friendly and bubbly	1	2	5	3	3	2	Has a blunt sense of humour
Feel like they are accomplishing something	4	2	2	3	3	4	Feel like they have not accomplished anything yet
Is outgoing in groups	3	2	2	4	2	3	Is shy and reserved

## Appendix F

### Participant Four Grid (no history)

Emergent Pole (1)	No-NSSI.1F	No-NSSI.2F	No-NSSI.3F	NSSI.1F	NSSI.2F	Self-N	Implicit Pole (5)
Struggles with a sense of identity (s)	5	3	4	4	4	3	Very confident and sure of themselves (s)
Behaves impulsively (s)	2	4	3	4	4	2	Spends a great deal of time planning (s)
Is easily overwhelmed emotionally (s)	1	1	3	1	2	4	Does not show emotions at all (s)
Has had a difficult time growing up (s)	4	2	5	4	1	1	Had a very easy childhood (s)
Regularly consumes alcohol or drugs (s)	1	4	3	4	4	5	Does not drink or use drugs at all (s)
Cannot explain how they are feeling emotionally (s)	5	5	5	2	2	5	Can easily talk about their emotions (s)
Socializes easily	1	3	1	5	5	2	Is more reserved and private
Is really forward and direct	1	5	2	1	3	4	Is tactful
Loves children	2	1	2	5	5	2	Not interested in children
Gives up easily	4	4	3	1	2	4	Perseveres
Physically active	2	4	2	5	3	5	Does not do physical activity

## Appendix G

### Participant Five Grid (no history)

Emergent Pole (1)	No-NSSI.1F	No-NSSI.2F	No-NSSI.3F	NSSI.1F	NSSI.2F	Self-N	Implicit Pole (5)
Struggles with a sense of identity (s)	5	4	5	1	2	4	Very confident and sure of themselves (s)
Behaves impulsively (s)	1	5	3	1	1	5	Spends a great deal of time planning (s)
Is easily overwhelmed emotionally (s)	3	3	2	3	3	3	Does not show emotions at all (s)
Has had a difficult time growing up (s)	5	3	5	1	2	4	Had a very easy childhood (s)
Regularly consumes alcohol or drugs (s)	4	4	4	4	4	4	Does not drink or use drugs at all (s)
Cannot explain how they are feeling emotionally (s)	4	3	2	2	3	4	Can easily talk about their emotions (s)
Is very spiritual	1	5	5	2	2	5	Non-spiritual beliefs
Is self-driven	1	2	2	5	3	2	Happy to benefit from others' success
Sporty and energetic	1	5	2	5	5	3	Prefers to be inactive (reading)
Responsible and thinks before they speak	2	2	5	2	2	2	Lacks a verbal filter
Materialistic	4	2	5	3	4	3	Environmentally aware

## Appendix H

### Participant Six Grid (no history)

Emergent Pole (1)	No-NSSI.1M	No-NSSI.2F	No-NSSI.3M	NSSI.1F	NSSI.2F	Self-N	Implicit Pole (5)
Struggles with a sense of identity (s)	5	4	4	3	3	4	Very confident and sure of themselves (s)
Behaves impulsively (s)	2	4	5	4	4	3	Spends a great deal of time planning (s)
Is easily overwhelmed emotionally (s)	4	3	4	3	2	4	Does not show emotions at all (s)
Has had a difficult time growing up (s)	3	4	2	2	3	5	Had a very easy childhood (s)
Regularly consumes alcohol or drugs (s)	3	3	3	3	3	3	Does not drink or use drugs at all (s)
Cannot explain how they are feeling emotionally (s)	5	5	4	4	5	4	Can easily talk about their emotions (s)
Enjoys organising social events	1	2	4	4	2	1	Happy to follow others' ideas
Introverted	5	3	4	2	3	2	Extroverted
Needs everything to be in order	5	1	3	4	2	3	Is relaxed and laid back
Ambitious	2	3	1	4	2	2	Happy to coast through life
Happiest with one or two close friends	5	2	2	1	2	1	Prefers a large social group

## Appendix I

### Participant Seven Grid (no history)

Emergent Pole (1)	No-NSSI.1F	No-NSSI.2F	No-NSSI.3M	NSSI.1F	NSSI.2F	Self-N	Implicit Pole (5)
Struggles with a sense of identity (s)	5	4	5	2	2	4	Very confident and sure of themselves (s)
Behaves impulsively (s)	5	3	3	3	1	4	Spends a great deal of time planning (s)
Is easily overwhelmed emotionally (s)	3	4	4	1	4	3	Does not show emotions at all (s)
Has had a difficult time growing up (s)	5	3	3	3	2	5	Had a very easy childhood (s)
Regularly consumes alcohol or drugs (s)	4	4	2	3	3	4	Does not drink or use drugs at all (s)
Cannot explain how they are feeling emotionally (s)	5	4	5	5	2	3	Can easily talk about their emotions (s)
Has lost a significant person in their lives	4	1	1	4	1	3	Has lost no one close to them
Has strong family connections	1	1	2	5	3	1	Has a toxic relationship with family
Is reserved and laid back	3	2	1	5	4	2	Is upfront and confronting to others
Is very social	4	4	2	3	2	2	Is a home-body
Has a strong work ethic	1	3	5	3	5	1	Is unreliable

## Appendix J

### Participant Eight Grid (no history)

Emergent Pole (1)	No-NSSI.1F	No-NSSI.2F	No-NSSI.3F	NSSI.1F	NSSI.2F	Self-N	Implicit Pole (5)
Struggles with a sense of identity (s)	4	4	4	1	2	3	Very confident and sure of themselves (s)
Behaves impulsively (s)	5	4	4	5	1	4	Spends a great deal of time planning (s)
Is easily overwhelmed emotionally (s)	1	2	3	1	2	3	Does not show emotions at all (s)
Has had a difficult time growing up (s)	4	4	4	1	2	3	Had a very easy childhood (s)
Regularly consumes alcohol or drugs (s)	4	4	4	4	1	4	Does not drink or use drugs at all (s)
Cannot explain how they are feeling emotionally (s)	2	4	5	3	3	3	Can easily talk about their emotions (s)
Very cautious	1	2	1	1	4	1	Is a risk taker
Is emotionally unstable	1	2	5	1	1	2	Is emotionally balanced
Very confident	2	2	2	5	2	3	Reserved
Highly academic	1	1	2	4	5	1	Unfocused
Has a good family support system	1	1	1	5	4	2	Has a dysfunctional family system

## Appendix K

### Participant One Grid (history)

Emergent Pole (1)	No-NSSI.1F	No-NSSI.2M	No-NSSI.3M	NSSI.1F	NSSI.2M	Self-Y	Implicit Pole (5)
Struggles with a sense of identity (s)	5	3	4	4	2	1	Very confident and sure of themselves (s)
Behaves impulsively (s)	5	4	3	3	1	5	Spends a great deal of time planning (s)
Is easily overwhelmed emotionally (s)	3	3	5	4	1	5	Does not show emotions at all (s)
Has had a difficult time growing up (s)	4	4	5	3	2	1	Had a very easy childhood (s)
Regularly consumes alcohol or drugs (s)	3	5	2	3	2	1	Does not drink or use drugs at all (s)
Cannot explain how they are feeling emotionally (s)	5	1	1	3	1	1	Can easily talk about their emotions (s)
Has a love of movies	3	5	5	1	1	1	Will not watch movies
Likes to be on their own or with their partner	5	1	1	1	1	1	Enjoys lots of social gatherings
Is creative	5	1	1	5	1	5	Is academic
Is goal oriented	1	5	3	3	4	1	Does not have goals
Has a love of travelling	1	5	3	5	2	1	Stays at home all the time



## Appendix L

### Participant Two Grid (history)

Emergent Pole (1)	No-NSSI.1M	No-NSSI.2F	No-NSSI.3F	NSSI.1F	NSSI.2F	Self-Y	Implicit Pole (5)
Struggles with a sense of identity (s)	4	2	3	2	4	4	Very confident and sure of themselves (s)
Behaves impulsively (s)	3	4	5	1	4	3	Spends a great deal of time planning (s)
Is easily overwhelmed emotionally (s)	5	3	2	1	3	1	Does not show emotions at all (s)
Has had a difficult time growing up (s)	4	3	5	1	3	2	Had a very easy childhood (s)
Regularly consumes alcohol or drugs (s)	2	4	4	3	1	3	Does not drink or use drugs at all (s)
Cannot explain how they are feeling emotionally (s)	1	3	2	4	5	4	Can easily talk about their emotions (s)
Is open about their sexuality	1	4	5	2	1	3	Closed off about anything sexual
Loves to travel	2	1	3	4	1	5	Prefers to stay at home
Animals are important in their life	4	1	1	1	2	1	Is indifferent to animals
Has a love of music	2	4	4	1	1	1	Music is not an important part their daily life
Is career focused	1	2	1	4	4	3	Is happy to go with the flow

## Appendix M

### Participant Three Grid (history)

Emergent Pole (1)	No-NSSI.1M	No-NSSI.2M	No-NSSI.3M	NSSI.1M	NSSI.2F	Self-Y	Implicit Pole (5)
Struggles with a sense of identity (s)	4	4	5	2	1	1	Very confident and sure of themselves (s)
Behaves impulsively (s)	5	4	4	2	3	4	Spends a great deal of time planning (s)
Is easily overwhelmed emotionally (s)	4	4	5	2	1	1	Does not show emotions at all (s)
Has had a difficult time growing up (s)	1	4	5	3	4	2	Had a very easy childhood (s)
Regularly consumes alcohol or drugs (s)	4	5	4	5	3	3	Does not drink or use drugs at all (s)
Cannot explain how they are feeling emotionally (s)	1	2	2	5	5	5	Can easily talk about their emotions (s)
Is open and honest	4	2	5	1	2	1	Is closed off and secretive
Has a good sense of humour	4	3	4	1	1	2	Is serious and easily offended
Is caring and loves animals	3	3	4	3	1	1	Is cold and uninterested in animals
Is willing to try new things	1	3	3	1	4	2	Is afraid to leave their comfort zone
Is always willing to help others	2	1	5	2	2	1	Is selfish

## Appendix N

### Participant Four Grid (history)

Emergent Pole (1)	No-NSSI.1F	No-NSSI.2F	No-NSSI.3F	NSSI.1F	NSSI.2F	Self-Y	Implicit Pole (5)
Struggles with a sense of identity (s)	5	5	3	1	1	1	Very confident and sure of themselves (s)
Behaves impulsively (s)	5	5	4	5	3	3	Spends a great deal of time planning (s)
Is easily overwhelmed emotionally (s)	4	3	5	5	1	2	Does not show emotions at all (s)
Has had a difficult time growing up (s)	5	4	4	1	1	2	Had a very easy childhood (s)
Regularly consumes alcohol or drugs (s)	5	3	3	4	3	5	Does not drink or use drugs at all (s)
Cannot explain how they are feeling emotionally (s)	4	5	4	3	1	3	Can easily talk about their emotions (s)
Is private and keeps to themselves	3	2	3	5	2	4	Open
Is understanding and compassionate	4	4	3	3	2	2	Self-focused
Has a large social group	5	2	1	5	3	4	Has only a couple of close friends
Bounces back quickly from problems	2	1	2	3	5	3	Struggles to recover after problems
Struggles with social cues	3	5	5	2	3	1	Is socially aware

## Appendix O

### Participant Five Grid (history)

Emergent Pole (1)	No-NSSI.1M	No-NSSI.2F	No-NSSI.3F	NSSI.1M	NSSI.2F	Self-Y	Implicit Pole (5)
Struggles with a sense of identity (s)	4	2	4	2	2	2	Very confident and sure of themselves (s)
Behaves impulsively (s)	4	2	4	3	1	4	Spends a great deal of time planning (s)
Is easily overwhelmed emotionally (s)	3	2	2	4	3	2	Does not show emotions at all (s)
Has had a difficult time growing up (s)	5	1	3	1	2	3	Had a very easy childhood (s)
Regularly consumes alcohol or drugs (s)	4	5	4	2	1	3	Does not drink or use drugs at all (s)
Cannot explain how they are feeling emotionally (s)	2	4	4	2	2	1	Can easily talk about their emotions (s)
Is always striving to achieve more	4	4	3	1	4	2	Is comfortable with their life
Enjoys socialising	3	2	2	4	1	4	Is happy being on their own
Has quick mood changes	4	3	1	3	2	3	Always acts the same
Is dramatic	4	1	2	4	1	4	Downplays things
Loves surprises	3	5	4	4	3	2	Likes to know everything going on

## Appendix P

### Participant Six Grid (history)

Emergent Pole (1)	No-NSSI.1M	No-NSSI.2M	No-NSSI.3F	NSSI.1F	NSSI.2F	Self-Y	Implicit Pole (5)
Struggles with a sense of identity (s)	3	5	5	2	3	5	Very confident and sure of themselves (s)
Behaves impulsively (s)	2	3	5	4	3	2	Spends a great deal of time planning (s)
Is easily overwhelmed emotionally (s)	2	5	4	1	4	3	Does not show emotions at all (s)
Has had a difficult time growing up (s)	2	5	5	4	1	5	Had a very easy childhood (s)
Regularly consumes alcohol or drugs (s)	1	1	2	4	1	5	Does not drink or use drugs at all (s)
Cannot explain how they are feeling emotionally (s)	3	2	5	2	2	5	Can easily talk about their emotions (s)
Has a love of travelling	4	1	1	1	4	5	Is a homebody
Grew up close to their culture	4	1	1	1	5	1	Grew up away from their culture
Likes to be part of a team	4	3	1	2	2	2	Prefers to do things on their own
Has challenging children	2	5	5	3	1	5	Has children without challenges
Is still dependent on their parents	1	4	1	4	5	4	Is independent of their parents

## Appendix Q

### Participant Seven Grid (history)

Emergent Pole (1)	No-NSSI.1F	No-NSSI.2F	No-NSSI.3F	NSSI.1M	NSSI.2F	Self-Y	Implicit Pole (5)
Struggles with a sense of identity (s)	4	3	5	3	2	5	Very confident and sure of themselves (s)
Behaves impulsively (s)	3	1	5	2	3	2	Spends a great deal of time planning (s)
Is easily overwhelmed emotionally (s)	5	2	2	3	1	3	Does not show emotions at all (s)
Has had a difficult time growing up (s)	5	3	1	1	5	2	Had a very easy childhood (s)
Regularly consumes alcohol or drugs (s)	1	3	1	1	4	5	Does not drink or use drugs at all (s)
Cannot explain how they are feeling emotionally (s)	3	5	5	1	2	4	Can easily talk about their emotions (s)
Likes to socialise	2	4	2	1	2	4	Prefers to be on their own
Is lazy	2	2	2	5	2	4	Hyperactive
Enjoys doing activities	2	3	3	1	5	4	Happy doing nothing
Gets angry easily	4	5	1	1	3	3	Does not show anger
Enjoys eating junk food	1	2	1	3	1	4	Only eats healthy food

## Appendix R

### Participant Eight Grid (history)

Emergent Pole (1)	No-NSSI.1F	No-NSSI.2F	No-NSSI.3M	NSSI.1F	NSSI.2F	Self-Y	Implicit Pole (5)
Struggles with a sense of identity (s)	3	5	4	4	3	4	Very confident and sure of themselves (s)
Behaves impulsively (s)	5	4	2	3	4	3	Spends a great deal of time planning (s)
Is easily overwhelmed emotionally (s)	3	4	3	4	2	4	Does not show emotions at all (s)
Has had a difficult time growing up (s)	2	2	4	5	5	4	Had a very easy childhood (s)
Regularly consumes alcohol or drugs (s)	1	1	5	1	1	1	Does not drink or use drugs at all (s)
Cannot explain how they are feeling emotionally (s)	3	2	3	2	2	1	Can easily talk about their emotions (s)
Enjoys taking serious drugs	2	2	5	1	1	4	Does not use class A drugs
Enjoys festivals and being in a large crowd	1	1	5	1	1	1	Is happy being on their own
Is selfish and self-focused	1	1	5	4	2	4	Would help and care for others
Enjoys being adventurous	2	1	5	5	3	4	Is not adventurous
Is extremely spontaneous	1	2	4	3	1	5	Needs structure

## Appendix S

### Participant Nine Grid (history)

Emergent Pole (1)	No-NSSI.1F	No-NSSI.2F	No-NSSI.3F	NSSI.1F	NSSI.2F	Self-Y	Implicit Pole (5)
Struggles with a sense of identity (s)	4	3	4	2	1	2	Very confident and sure of themselves (s)
Behaves impulsively (s)	4	2	4	4	2	2	Spends a great deal of time planning (s)
Is easily overwhelmed emotionally (s)	2	4	4	3	1	1	Does not show emotions at all (s)
Has had a difficult time growing up (s)	5	5	4	2	5	5	Had a very easy childhood (s)
Regularly consumes alcohol or drugs (s)	3	2	3	4	3	2	Does not drink or use drugs at all (s)
Cannot explain how they are feeling emotionally (s)	2	4	4	2	3	2	Can easily talk about their emotions (s)
Is really outgoing	4	1	1	4	2	2	Keeps to themselves
Enjoys physical exercise	5	4	2	4	2	2	Avoids doing physical exercise
Likes being in big groups of people	5	3	2	4	1	4	Likes being with close friends
Knows what their future is	1	4	2	2	5	5	Does not know what they are doing yet with their lives
Really likes animals	2	2	1	1	4	1	Does not care about animals

## Appendix T

### Participant Recruitment Flyer



 **MASSEY UNIVERSITY**  
TE KUNENGA KI PŪREHUROA  
UNIVERSITY OF NEW ZEALAND

**School of Psychology**  
PO Box 756, Wellington 6140,  
New Zealand  
T +64 4 8015799 F +64 4 801 2692  
[www.massey.ac.nz](http://www.massey.ac.nz)

**HAVE A PERSONAL HISTORY OF SELF-HARM?**  
*...cutting, scratching, burning, or picking yourself?*  
**WE WANT YOU!**

**KNOW SOMEONE WHO SELF-HARMS?**  
**WE WANT YOU!**

**EXPLORING THE CONSTRUCTS YOUNG PEOPLE HOLD ABOUT NON-SUICIDAL SELF-INJURY.**

Non-suicidal self-injury (NSSI), is where a person causes harm to their own body, not tattooing or piercings, but where there is no suicidal intent.

**For this study I am looking for participants who are (a) over 16 years old, (b) English speaking, (c) who have not engaged in self-injury in the last 6 months, and (d) are female.**

You will be asked to attend a single face-to-face interview completed on Campus.  
**Your confidentiality and anonymity is assured.** If you are interested in participating, or would like to know more, please contact the researcher or the Health Centre.

Laura McKeeg (the researcher)  
021517337  
[laura.mckeeg.1@uni.massey.ac.nz](mailto:laura.mckeeg.1@uni.massey.ac.nz)  
Health Centre M Block, 07 346 8883

Laura McKeeg (the researcher)  
021517337  
[laura.mckeeg.1@uni.massey.ac.nz](mailto:laura.mckeeg.1@uni.massey.ac.nz)  
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## Appendix U

### Participant Information Sheet



School of Psychology  
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## Exploring the constructs young people hold about non-suicidal self-injury PARTICIPANT INFORMATION SHEET

My name is Laura McKegg and I am a master's psychology student at Massey University. I am currently conducting a research project focused on non-suicidal self-injury (NSSI).

This project aims to explore the constructs young people hold about NSSI. For this I am looking for a group of participants who are (a) over 16 years old, (b) English speaking, and (c) are female. I am looking for some participants with a history of NSSI and some participants with no history of NSSI. Please note, if you have a history of NSSI, you must **not** have engaged in the behavior in the last 6 months.

**Non-suicidal self-injury (NSSI) is where a person causes physical harm to their own body (not tattooing or piercings), but where there is no suicidal intent.**

In this part of the study I will be collecting data from a number of one-off individual interviews using an existing technique, called Repertory Grid Analysis to elicit and compare constructs. The interview will involve some supplied constructs and some elicited during the interview.

A **construct** is the way we make sense of something (in this case the something/topic is NSSI). An **element** (usually a person) is used as an example of the topic, which the participant will be asked to think of. Each participant will be asked to generate and then compare these elements, which in the case of this study, will be **people** who engage in NSSI (or think they might be the type to), and people who do not engage in NSSI. Each participant will be asked to **rate** each element in relation to the constructs, both provided and elicited.



**Participation is voluntary. It is important for you to know that you are not obliged to take part in this study.** You are receiving this information sheet because you indicated that you might be willing to participate in this study, however you can change your mind without having to explain why. If you decide to participate and then change your mind, you can do so at any time.

You are under no obligation to accept this invitation. If you decide to participate, you have the right to:

- decline to answer any question;
- withdraw from the study
- ask any questions about the study at any time during participation
- provide information on the understanding that your name will not be used unless you give permission to the researcher
- be given access to a summary of the project findings when it is concluded.

### **Risks and Benefits**

If you do decide to participate this is what we will ask you to do – Attend a single face-to-face interview about the constructs that you hold about people who engage in NSSI.

Interviews will usually take place on campus at the Health Centre, located at Toi Ohomai), however as the information disclosed during the interview is not personal or sensitive, an alternative location can be used if required. Before the interview starts you will be asked to sign a consent form.

The time taken to complete the interview will be up to 60 minutes. The interviews will not be recorded however; information will be written down. Your identity will be kept anonymous, and no participant will be identified in any reports or presentations resulting from this study.

It is not anticipated that the interview will lead to discomfort, however at any stage during the interview if you feel uncomfortable with what is being said, it is important to let me, the researcher know. I will make sure that there is a health professional available during each interview.

### **Confidentiality**

**At no point will your full identity be revealed to anyone else.** The data will be presented in a summary report of the study, and possibly a manuscript submitted to an academic journal. This study will be used as a foundation for further research in this area.

The data gained from the interview will be stored electronically, along with all other study materials, on a password protected computer, and on Massey's secure file server. When the study has been completed and reported study data will be archived by the study supervisor

### **Reimbursement**

A \$20 New World voucher will be offered as a 'thank you' for your participation

Due to the nature of the topic, contact information for external mental health services is displayed below. Should you experience any psychological discomfort/distress we encourage you to seek support through these **recommended services, a trusted friend/family member, and/or your general practitioner.**

**Lifeline:** 0800 543 354 (available 24/7)

**Youthline:** 0800 376 633 (available 24/7, free txt available on 234 from 8am-midnight)

**OUTline:** 0800 688 5463

**Suicide Crisis Helpline:** 0508 828 865 (0508 TAUTOKO) (available 24/7)

**Depression helpline:** 0800 111 757 (available 24/7)

**Rainbow Youth:** (09) 376 4155

**Samaritans:** 0800 726 666

### **Contacts and Questions**

If you have any questions regarding this research or your rights as a participant, please feel free to contact me directly using the contact details below:

**Laura McKegg** (Psychology Master's Student, Massey University)

Phone: [REDACTED]

Email: [laura.mckegg.1@uni.massey.ac.nz](mailto:laura.mckegg.1@uni.massey.ac.nz)

Or contact my supervisor:

**John Fitzgerald** (S/L Clinical Psychology, Massey University, Wellington)

Phone: (04) 801 5799 extn: 63620

Email: [j.m.fitzgerald1@massey.ac.nz](mailto:j.m.fitzgerald1@massey.ac.nz)

*This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern A, Application SOA 18/40. If you have any concerns about the conduct of this research, please contact Dr Lesley Batten, Chair, Massey University Human Ethics Committee: Southern A, telephone 06 356 9099 x 85094, email [humanethicsoutha@massey.ac.nz](mailto:humanethicsoutha@massey.ac.nz).*

## Appendix V

### Participant Screening Form



**School of Psychology**  
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## Exploring the constructs young people hold about non-suicidal self-injury PARTICIPANT SCREENING FORM

**Participant number** .....

**Gender** .....

**Ethnicity** .....

**Age** .....

**Have you ever engaged in non-suicidal self-injury?**

.....

**If yes, has it been more than six months since you engaged in the behavior?**

.....

**If you answered yes to both of these questions, please *turn the page over* and answer the final question**





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## Exploring the constructs young people hold about non-suicidal self-injury

### PARTICIPANT SCREENING FORM

**If you have engaged in non-suicidal self-injury, but have not engaged in the behaviour in the last six months, what do you think is the reason why you have not? (tick all that apply)**

- ☐ Have someone close that understands who you can talk to
- ☐ Have learned on your own to do other things instead of non-suicidal self-injury
- ☐ Just have not felt the need to do it
- ☐ Have had counseling and feel like you now have the skills to cope with your feelings without needing to engage in non-suicidal self-injury
- ☐ Some other reason (if you are comfortable, please write it here)

.....

## Appendix W

### Repertory Grid Template used for Each Interview

#### Exploring the constructs young people hold about Non-Suicidal Self-Injury

Participant: \_\_\_\_\_

Similarity idea (1)	People you know:						Contrasting idea (5)
	Person 1	Person 2	Person 3	NSSI 1	NSSI 2	Self	
Struggles with a sense of identity							Very confident and sure of themselves
Behaves impulsively							Spends a great deal of time planning
Is easily overwhelmed emotionally							Does not show emotions at all
Has had a difficult time growing up							Had a very easy childhood
Regularly consumes alcohol or drugs							Does not drink or use drugs at all
Cannot explain how they are feeling emotionally							Can easily talk about their emotions
Similarity (elicited construct)							Contrasting (elicited construct)
Similarity (elicited construct)							Contrasting (elicited construct)
Similarity (elicited construct)							Contrasting (elicited construct)
Similarity (elicited construct)							Contrasting (elicited construct)
Similarity (elicited construct)							Contrasting (elicited construct)
<p>Two poles – the similarity and the contrast pole – are listed in columns at either end.            People (in the middle columns) are rated in terms of the extent to which they belong to either of the poles of a construct.            The ratings are placed in a row of the cells between the corresponding poles.</p>							