

NON-SUICIDAL SELF-INJURY AND SOCIAL INFLUENCE

by

TERIN M. DRIGGERS

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ABSTRACT

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Terin Driggers, M.S.S.W.

The University of Texas at Arlington, 2010

Supervising Professor: Regina T.P. Aguirre

The researcher conducted an online survey through social networking sites and online college/university communications to identify the relationship between social influence (e.g. peer acceptance, media exposure) and NSSI behaviors among undergraduate and graduate students from participating colleges and universities in the United States. Descriptive statistics and chi-square analyses were utilized to analyze the research objectives and a Pearson's correlation coefficient indicated that a positive, direct relationship was found between social influence and NSSI, but it was weak and not statistically significant ( $r=.20$ ,  $p=.12$ ). Implications and recommendations for future research as well as practice are discussed.

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CHAPTER 1  
INTRODUCTION  
1.1 Rationale

*1.1.1 Prevalence of the Problem*

Though non-suicidal self-injury (NSSI) has been documented since the epochs of ancient Greece, Rome, and Japan (Bennun, 1984; Favazza, 1998), contemporary researchers have just begun to characterize the escalating prevalence of said phenomenon as a societal epidemic (Favazza, 1998; Favazza & Rosenthal, 1993; Hodgson, 2004; Holly, 2007; Muehlenkamp, 2006). In fact, self-harm is such a major problem that some regions, such as the United Kingdom, are now utilizing multicentre monitoring to assess NSSI rates (Hawton et al., 2007).

1.1.1.1 Clinical Populations

Studies of United Kingdom clinical populations, that is, populations within hospitalization, treatment, and outpatient programs (Holly, 2007), have reported that approximately 2,500 adolescents who deliberately self-injure present each year. Thus, 30 to 48% of their adolescent patients have engaged in NSSI behaviors (Fortune, 2006). These rates are analogous to those found in Canada and the United States (Fliege et al., 2006; Guertin, Lloyd-Richardson, Spirito, Donaldson, & Boergers, 2001; Nixon, McLagan, Landell, Carter, & Deshaw, 2004; Yip, 2006).

1.1.1.2 Community Populations

The incidence of NSSI, however, is not exclusive to psychiatric or clinical settings. Studies also report that prevalence rates are augmenting within normative or community populations (Holly, 2007; Klonsky, Oltmanns, & Turkheimer, 2003; Muehlenkamp, 2006). For instance, in England and Australia it is estimated that six to seven percent of adolescents in the general community participate in NSSI (Laukkanen et al., 2009). Additionally, one study with a sample of 4,205 Finnish boys and girls, aged 13 to 18 years, indicated that the lifetime prevalence of self-injury without the intent of suicide was 21.4%. Of that 21.4%, 11.4% favored the method of cutting (Laukkanen et al., 2009). A survey of 2,974

Japanese junior and senior high school students reported that 9.9% had engaged in NSSI at least once in their lifetime (Matsumoto & Imamura, 2008). With respect to the United States, surveys revealed that prevalence rates range from 4 to 20% among adolescents and adults in the community, the majority of which is comprised of adolescent females and an equal number of female and male young adults (Hawton et al., 2007; Heath, Toste, Nedecheva, & Charlebois, 2008; Klonsky et al., 2003; Muehlenkamp & Gutierrez, 2004; Whitlock, Eckendrode, & Silverman, 2006).

#### 1.1.1.3 College Prevalence

As the aforementioned studies indicate, NSSI is most prominent among adolescents and young adults. This phenomenon may be partly due to the age of onset that, according to empirical evidence, typically ranges from 17 to 24 years (Heath et al., 2008). It should be noted, however, that clinical evidence suggests the age of onset may be younger.

Lifetime prevalence rates of NSSI are highest among Caucasian university or college students, ranging from 11 to 40% (Gratz, 2006; Heath et al., 2008; Hoff & Muehlenkamp, 2009; Muehlenkamp, Hoff, Licht, Azure, & Hasenzahl, 2008). Additionally, a few studies have demonstrated that 72 to 75% of university or college students who engage in NSSI do so more than once in their life span (as cited in Holly, 2007, p. 13). Further contributing to the severity of this trend is the fact that a great proportion of those who participate in self-injurious behavior never seek professional assistance or divulge their behavior to others (Gratz, Conrad, & Roemer, 2002; Klonsky, 2007; Whitlock et al., 2006).

Little is known with respect to why self-injury propensities primarily develop in college years, but it is postulated that the increasing educational pressures and the perception of peers as competition rather than a support system abate coping skills and consequently augment susceptibility to said behavior (Ashford, LeCroy, & Lortie, 2006).

Hoff and Muehlenkamp (2009) further scrutinized said abatement of healthy coping skills by studying the effects of perfectionism and rumination, along with depression and anxiety, on self-injurious behavior within a sample of 170 college students. Utilizing Baumeister's (1990) proposal that escape theory may explicate suicidal behavior, Hoff and Muehlenkamp (2009) hypothesized that the tenets of escape theory may also be applicable to NSSI. Thus, they posited that the idealistic expectations of

perfectionism may contribute to perceptions of “personal failure” which is subsequently followed by “distressing states such as depression or anxiety, on which the person ruminates” (Hoff & Muehlenkamp, 2009, p. 577). Ergo, the aforementioned states contribute to maladaptive problem-solving abilities and lower levels of constructive thoughts. Simply stated, NSSI may be utilized as a coping device to alleviate or “escape” psychological or interpersonal distress.

Group comparisons of those who engage(d) in NSSI and those who never have engaged in NSSI demonstrated that participants with a history of NSSI had significantly more rumination and distressful symptoms than their non-NSSI counterparts. Therefore, the results suggest that higher levels of depression, anxiety, and rumination may augment susceptibility for NSSI. With respect to perfectionism, results were varied since NSSI participants differed from the non-NSSI comparison group on three particular aspects of perfectionism: concern over mistakes, parental criticism, and organization. Not only do these results indicate that select aspects of perfectionism may contribute to self-injurious behaviors, but the results also indicate that further research is needed to elucidate the contribution of perfectionism and other factors to NSSI (Hoff & Muehlenkamp, 2009).

While prevalence rates are always debatable and consideration must be given with respect to researchers’ definitions of non-suicidal self-injury, it is apparent that NSSI is a rising problem for youth within normative settings, particularly educational arenas (Gratz, 2006; Holly, 2007; Klonsky, 2007; Ross & Heath, 2002). Though interest in NSSI is augmenting as evidenced by the expansion of professional literature on the topic and its glorification in the media, including popular movies such as *Girl, Interrupted* and *Thirteen*, television shows such as *Medium*, music, books, and chat rooms/websites (Purinton & Whitlock, 2004; Whitlock, Lader, & Conterio, 2007), ambiguity still exists regarding the initiation and continued engagement in non-suicidal self-injurious behaviors. Scant information is available with respect to how individuals first learn of NSSI behaviors, their motivations for self-harming without the intent of suicide, and the extent social persuasions such as peer acceptance and/or media exposure play in the initiation of and/or continued participation in these behaviors.



### 1.2 Purpose Statement

The primary purpose of this study was to determine if a relationship exists between social influence and NSSI behaviors among undergraduate and graduate students from participating colleges and universities in the United States.

### 1.3 Objectives

Specific objectives formulated to guide this study include:

1. Describe those who engage in NSSI on the following characteristics:
  - a. Sex
  - b. Age
  - c. Race
  - d. Hispanic origin
  - e. Current level of education
  - f. Type of higher education institution (e.g. private v. public)
  - g. School's student enrollment
  - h. Organization affiliations
  - i. Current residence
  - j. Areas of the body injured
  - k. Methods of self-injury
  - l. Most utilized self-injury method
  - m. Age of onset
  - n. Location of first NSSI episode
  - o. How the participant first thought of NSSI
  - p. Feelings before and after first NSSI episode
  - q. Length of time between first and second episode
  - r. Desire to stop self-injuring
  - s. How or why the participant stopped engaging in NSSI

2. Describe those who do not engage in NSSI on the following characteristics:
  - a. Sex
  - b. Age
  - c. Race
  - d. Hispanic origin
  - e. Current level of education
  - f. Type of higher education institution (e.g. private v. public)
  - g. School's student enrollment
  - h. Organization affiliations
  - i. Current residence
  - j. Ever thought about engaging in NSSI
  - k. Motivations for not engaging in NSSI
  - l. Ever known anyone who engages in NSSI
  
3. Describe social interactions around NSSI with respect to motivations for initiation and continued engagement, disclosure to others, and shared methods within peer groups across the variables of:
  - a. If anyone was told after the first NSSI episode
  - b. Who was told about the first NSSI episode
  - c. If anyone knows about the participant's NSSI behavior
  - d. Who was told about the participant's NSSI behavior
  - e. How many of the participant's friends engage in NSSI
  - f. If the participant knew about a friend's NSSI behavior before he/she first engaged in NSSI
  - g. Frequency of disclosure with friends regarding NSSI
  - h. Frequency of self-injuring with friends
  - i. Location of self-injury with friends
  - j. Suggested idea of self-injuring to another

- k. Disclosure on Internet
    - l. Frequency of disclosure on Internet
    - m. If friends contribute to continued engagement in NSSI
4. Describe social interactions of those who do not engage in NSSI across the variables of:
  - a. Motivations for not engaging in NSSI
  - b. Ever known anyone who engages in NSSI
  - c. Thoughts regarding why others engage in NSSI
  - d. How first learned of NSSI
5. Identify if a relationship exists between social interactions and NSSI.
6. Compare those who engage in NSSI with those who do not engage in NSSI.

#### 1.4 Definitions

- Non-suicidal self-injury (NSSI) – “the deliberate destruction of body tissue without suicidal intent and for purposes not socially sanctioned” (Klonsky, 2007, p. 1045). Universal forms of self-injury are: cutting, grating, burning, hitting, needle-sticking, and excoriation of wounds (Nock, Joiner, Gordon, Lloyd-Richardson, & Prinstein, 2006). Although eating disorders and substance abuse cause tissue damage said deterioration is inadvertent. Therefore, the aforesaid afflictions are not considered non-suicidal self-injury (Klonsky, 2007). NSSI is also occasionally referred to as deliberate self-harm, self-mutilation, and parasuicidal behavior (Aizenman & Conover Jensen, 2007).
- Social influence – a process of altering attitudes, principles, and/or behaviors in response to the attitudes and behaviors of others (e.g. peer acceptance or media exposure).

## CHAPTER 2

### REVIEW OF RELATED LITERATURE

#### 2.1 Impact of the Problem

##### 2.1.1 *Adverse Social Effect*

Albert Bandura's (1977, 1986) social learning theory posits that behavior can be learned via observations, hearing, reading, and other direct and indirect experiences within the social environment through the process of modeling. Thus, he acknowledged that people can learn vicariously and eventually enact the newly learned behavior with some expectancy of reinforcement. Stated simply, people may emulate the learned behavior with the hope that they will receive analogous reinforcement to that attained by the original model (Bandura, 1977, 1986).

Prior research has demonstrated that the phenomenon of social modeling can stimulate the initiation of self-destructive behaviors such as smoking, risky sexual practices, disordered eating, and suicidal propensities (as cited in Muehlenkamp et al., 2008, p. 235). Perhaps, the area of research that offers the most support for the aforesaid premise, however, is on the consumption of alcohol among adolescents and young adults. Studies have revealed that personal and/or group observations as well as expectancy greatly influence the level of alcohol consumption. Additionally, studies have indicated that non-drinking teens and adults usually commence drinking and increase their drinking at quicker rates than typical drinkers because of said observations and group expectancy (Lange, Johnson, & Reed, 2006; Smith, Goldman, Greenbaum, & Christiansen, 1995; Timmerman, Geller, Glindermann, & Fournier, 2002). Thus, there is evidence to suggest that the mere direct or indirect experience of another's actions amplifies the probability of others participating in that behavior.

While research regarding the impact of social influences on the rates of NSSI is limited and primarily centers on contagion effects within psychiatric, clinical samples (Rosen & Walsh, 1989; Taiminen, Kallio-Soukainen, Nokso-Koivisto, Kaljonen, & Helenius, 1998), a few studies have

investigated this relationship in normative settings. One such study by Hodgson (2004) reported that those who engage in NSSI admitted that they either learned NSSI behaviors by accident or via exposure to NSSI from friends, books, and the Internet. Another study of 56 undergraduate college students who engaged in NSSI observed that 70% learned about NSSI through socially influenced means with 33.9% knowing someone who engaged in NSSI, 17.9% learning from books or movies, 7.1% learning from the internet, 10.7% learning from a health course, and 21.4% uncertain how they first thought of initiating NSSI behaviors. Additionally, this study revealed that the majority of the sample, 80.4%, told someone about their NSSI behaviors at some point and 20% engaged in NSSI in the presence of their friends (Holly, 2007).

Yet another study of 23 university students who participated in NSSI reported that while emotional motivations for engaging in NSSI were prevalent (approximately 91% of the sample), social motivations were also frequent (65.2%) (Heath, Ross, Toste, Charlebois, & Nedecheva, 2009). Muehlenkamp et al. (2008) observed similar results with respect to the positive association between exposure to NSSI and augmented NSSI rates among those exposed. Considering the results of the aforementioned studies that appear to support the tenets of Bandura's social learning theory, it can be speculated that those that learn of NSSI behaviors via socially influenced means experiment with the behavior to determine whether it is an effective coping mechanism or to attain peer acceptance (Muehlenkamp et al., 2008).

### *2.1.2 Adverse Psychological Effect*

NSSI is an intricate condition of which scant information is available with respect to its etiology. Researchers posit that said behavior is often incited by trauma such as sexual assault, psychological and personality disorders such as anxiety disorders and depression, and substance abuse (Heath et al., 2008; Williams & Bydalek, 2007). Additionally, this behavior seems to serve a myriad of functions including: emotional inexpressiveness, reenactment of physical abuse, and expiation (Ashford, LeCroy, & Lortie, 2006). Ultimately, it is a short-term relief dysfunctional coping device utilized for affect regulation and to escape environmental stressors (Klonsky, 2007). Said behavior offers some semblance of internal locus of control over erratic emotions akin to trepidation, enmity, and ignominy (Kress & Hoffman, 2008).

Furthermore, NSSI is frequently interconnected with dissociation and depersonalization. Dissociation refers to feelings of detachment from the body while depersonalization pertains to feelings of “emptiness” and lack of sensation as if the body was not one’s own (Rao, 2006, p. 53). It should be noted, however, that temporal ambivalent precedence exists regarding whether dissociation and depersonalization are causes or consequences of NSSI (Armey & Crowther, 2008). Despite said ambiguity, phenomenological interviews with six females who engaged in NSSI revealed that self-injury permitted the women to recover some manifestation of their identities and that the intensity of pain reminded them that they can feel. Moreover, the scars from their incisions served as substantiation of their subsistence (Rao, 2006).

The motivations and functions of NSSI indicate those who self-injure are not merely doing so for purposes of self-expression or art like those who tattoo or obtain body piercings (Aizenman & Conover Jensen, 2007), nor do they signify suicidal intent (Holly, 2007). Rather, NSSI is about alleviating psychological distress and attempting to meliorate one’s situation (Bennun, 1984; Walsh, 2007). Dissimilar to individuals who have suicidal ideation, people who engage in NSSI typically possess more hope and optimism for the future and are more concerned with the preservation of life. Thus, hopelessness is one factor that distinguishes NSSI from suicidal propensities, because it is usually a precursor to suicide (Muehlenkamp & Gutierrez, 2004; Walsh, 2007).

Typically, research indicates that higher levels of anxiety, depression, substance use and abuse, and suicidal ideation are more likely associated with suicide attempts (SA) than NSSI (Wong, Stewart, & Lam, 2007). Additionally, Wichstrom (2009) in a sample of 2,924 Norwegian high school students, aged 14 to 19, discovered that the risk factors of: suicidal ideation, conduct problems, and disturbed self-concepts were significantly stronger predictors of SA than of NSSI. Furthermore, the protective factor of parental care had significantly greater impact on SA than NSSI. With respect to unique NSSI risk factors, Wichstrom (2009) observed that previous NSSI episodes and early, before age 15, sexual debut were significantly stronger predictors of future NSSI than SA. Moreover, satisfaction with social support appeared to be a significantly stronger protective factor for NSSI than SA. Despite the distinctions between NSSI and SA, several risk factors were common to both NSSI and SA: being female, possessing

a history of SA, and non-heterosexual interests. Regardless of the fact that NSSI and SA may not be entirely distinctive phenomena, NSSI was not found to significantly augment the risk for future SA (Wichstrom, 2009).

The disinclination for those who engage in NSSI to cease their existence is particularly evident when the most common methods of NSSI are considered: cutting, scratching, carving, hitting, burning, needle-sticking, excoriation of wounds, and abrading (Klonsky, 2007; Nock et al., 2006; Walsh, 2007). Only one of these methods are listed by the Center for Disease Control (CDC) as a frequent form of suicide – cutting. However, in comparison to the utilization of firearms, suffocation, poisoning, overdose, etc. cutting accounts for a meager 1.4% of deaths by suicide. Furthermore, suicide by cutting typically encompasses severing of the jugular vein, a phenomenon uncharacteristic to most non-suicidal self-injurers who tend to wound the extremities as a cry for assistance (Simeon & Hollander, 2001; Rao, 2006; as cited in Walsh, 2007, p. 1058).

While NSSI has a proclivity to be discrete from suicidal self-injury, the two behaviors are not always mutually exclusive. In fact, NSSI can be a potential antecedent to suicidal propensities (Kress & Hoffman, 2008; Muehlenkamp & Gutierrez, 2007). Often this relationship is overstated, however. For instance, Muehlenkamp and Gutierrez (2007) reported in their empirical study of 540 Midwestern high school students that 125 participants engaged in NSSI behavior. Of those 125 subjects, 48 attempted suicide. Another study with a sample size of 2,924 demonstrated that the prevalence of attempting suicide was nearly twice that of ever engaging in NSSI (8.7%, 4.9%, respectively) and it was revealed that of the 2.2% of the sample who engaged in NSSI, no one reported any suicide attempt at the five year follow-up (Wichstrom, 2009). Nevertheless, suicidal intent should always be assessed with the NSSI population (Kress & Hoffman, 2008; Walsh, 2007; Wester & Trepal, 2005).

### *2.1.3 Adverse Physical Effect*

Although research is limited with respect to the long-term physical injuries of non-suicidal self-injury, preliminary studies suggest that recurring injuries to the skin augments the probability of damaging tendons, nerves, blood vessels, and muscles; particularly if wounds do not receive proper treatment and become plagued with infection. Ergo, complications such as diminished serotonin levels and pain

sensitivity, numbness, muscle weakness, hypertrophic scarring, and issues with thermoregulation may result. Additionally, an increased risk for cancer and Marjolin's ulcer exists, especially if the preferred method of self-injury is burning (Van Loey & Van Son, 2003; Walsh, 2007).

Recently, a team of radiologists discovered a new and more severe form of NSSI – self-embedding. This method involves the insertion of objects such as unfolded paper clips or staples under the skin. Health care professionals state that this method poses significant risk, because in addition to the typical complications of NSSI, self-embedding could incite a deep muscle or bone infection. Furthermore, if the foreign object travels within the body it could potentially harm vital organs (“Teens’ Latest Self-Injury Fad: Self-Embedding,” 2008).

## 2.2 Current Attempts to Address the Problem

Traditionally, many clinicians have deemed the NSSI population difficult to work with, because of stigmatization and the fact that self-injurious behavior tends to exacerbate before it meliorates. This difficulty has inspired, and continues to inspire, clinicians to compel clients to cease their addictive behavior in order to stimulate the change process. Thus, the main form of treatment is comparable to addiction interventions. Not only are said actions unscrupulous and unethical, but are also ineffectual because clients afflicted by NSSI characteristically exhibit ambivalence about cessation or abstinence (Mangnall & Yurkovich, 2008). Compelling a client to refrain from the behavior may only incite confrontation or even hasty termination on the part of the client (Kress & Hoffman, 2008). Additionally, such actions disregard the client's capabilities and right to informed self-determination (Boyle, Hull, Mather, Smith, & Farley, 2008).

Ergo, current intervention guidelines, particularly those characterized by client-centered and cognitive-behavioral approaches, for NSSI state that a detailed assessment should be completed first. Initially, during the intake process not only should a biopsychosocial history be obtained including cultural and religious factors, but so should information pertaining to the frequency and duration of self-injury episodes, the location of wounds on the body, the level of medical attention necessary for wounds, the functions said behavior serves, and suicidal tendencies. A greater number of episodes and lesions suggests higher levels of distress; longer durations of both the behavior and episodes could indicate



privatized, habituated routines (Kress & Hoffman, 2008; Walsh, 2007; Wester & Trepal, 2005).

Additionally, assessment of the client's keenness to modify his/her behavior should be conducted. Kress and Hoffman (2008) and Prochaska and Prochaska (2004) describe six stages of intent to change which are as follows:

- (a) Stage 1 – Precontemplation: no intention to change within the next 6 months.
- (b) Stage 2 – Contemplation: considering change within the next 6 months.
- (c) Stage 3 – Preparation: intending to change in the next month.
- (d) Stage 4 – Action: has made a change but has not sustained it for 6 months.
- (e) Stage 5 – Maintenance – change has been sustained for more than 6 months.
- (f) Stage 6 – Termination: change has been maintained for more than 5 years. (p. 320)

Needless to state, goal setting is dependent upon the identified stage that alludes to the extent of resistance by the client.

Therefore, to respect the client's choices and competence as well as demonstrate unconditional positive regard for the client goals should be determined in collaboration with the client. Preliminary objectives with respect to NSSI behavior should center on diminishment of frequency or severity of self-injury and the establishment of alternative coping mechanisms. Such goals are more likely to engage the client in the therapeutic process, because the evaluation of progress is more inclined to yield outcomes indicating triumph and hope (Kress & Hoffman, 2008; Muehlenkamp, 2006; Wester & Trepal, 2005). To assist with the facilitation of the change process it is recommended that the helping professional always display unconditional positive regard and encourage clients to modify elements of his/her routine as well as maintain a log of the extent of the NSSI behavior (e.g. frequency of episodes, number of times the client self-injures during a single episode, the antecedents of each episode, and the feelings afterwards) to help clients and clinicians better comprehend the behavior and determine strengths and advantages that may be utilized to surmount said adversity (Walsh, 2007).

In addition to the emphasis on the therapeutic alliance, communicative and problem-solving skills, and affect regulation, researchers also suggest that therapists encourage NSSI clients to participate in online self-injury support groups, especially if the clients lack informal resources. Corcoran, Mewse, and

Babiker (2007) observed that the opportunity to participate in NSSI communities online has the potential to afford interpersonal intimacy since rapport with others who are plagued by NSSI tends to be characterized by deference, understanding, and acceptance. Thus, said support can normalize the self-injuring behavior. These findings were further buttressed by Murray and Fox (2006) who found that 37% of their sample who utilized online NSSI community boards experienced alleviation of NSSI behavior (as cited in Whitlock et al., 2007, p. 1138). Ergo, contemporary helping professionals are deeply encouraged to integrate Internet use in their assessments and interventions, particularly when considering clients' supportive networks (Whitlock et al., 2007).

### 2.3 Significance of the Study

NSSI is an affliction characterized by ambiguity. Not only does indistinctness exist with respect to its multitude of precursors and myriad of functions, but there are still gaps in literature concerning the dispersion of NSSI within community settings, particularly educational arenas. Consequently, scant empirical evidence is attainable regarding adequate, efficient, and equitable assessments, goal setting, treatments, and evaluations.

The lack of scrutiny of this topic alludes to the fact that many still perceive NSSI to be insignificant. In fact, thirty years after it has been included in the Diagnostic and Statistical Manual for Mental Disorders (DSM), health care professionals and community members still neglect to recognize the adverse effects associated with NSSI (Klonsky, 2007). Romer and McIntosh (2005) demonstrate this disregard in their study of 2,000 schools and 1,402 professionals in which they reported that 75% of the sample perceived self-injury, particularly cutting, to be a trivial problem.

Despite this social neglect associated with NSSI, prevalence rates, particularly within school settings, continue to escalate at staggering rates (Gratz, 2006; Heath et al., 2008, 2009; Hodgson, 2004; Holly, 2007; Klonsky, 2007; Klonsky et al., 2003; Muehlenkamp & Gutierrez, 2004; Muehlenkamp et al., 2008; Ross & Heath, 2002; Whitlock et al., 2006; Whitlock et al., 2007). By not acknowledging this phenomenon, stigmatization of this population is likely to further augment as is the probability that those who engage in NSSI will continue to refrain from seeking assistance (Klonsky, 2007; Mangnall & Yurkovich, 2008; Whitlock et al., 2006).

The present study will expand research on the matter of non-suicidal self-injury, particularly with respect to the impact of social influence. To the author's knowledge, it was the first study to examine the effects of social modeling on NSSI and associated prevalence rates of undergraduate and graduate students in colleges and universities across the United States. Consequently, it may not only assist with the identification of diversity factors, but it also has the potential to help diminish the associated stigma of this behavior, leading to the development of specific guidelines to minimize social contagion within schools and the general community. In other words, implications for treatment methods and primary and secondary prevention strategies may be provided as a result of this study.

## CHAPTER 3

### METHODOLOGY

This study was an online exploratory design that investigated the relationship between social influence and NSSI behaviors by undergraduate and graduate students from participating colleges and universities in the United States. The independent variable was the nature of social interactions and media exposure regarding NSSI as measured by the social influence questions provided by Heath, Ross, Toste, Charlebois, and Nedecheva (2009). The dependent variable was the initiation of and/or the continued engagement in NSSI behaviors which was measured by items from the Clinical Ottawa Self-Injury Inventory (OSI; Nixon & Cloutier, 2004), select items from the provided social influence questions, and basic demographic questions. Data was gathered from those who engage in NSSI and those who do not. Approval to conduct this study was granted by the University of Texas at Arlington (UT-Arlington) Institutional Review Board (IRB). For a copy of the approval letter please refer to Appendix A. Two minor modifications were made to this study involving changes to the survey for clarity purposes and changes in the procedure universities used to disseminate the survey. These changes involved permitting participating schools to distribute the survey at their own discretion either through the school's website, listserv, online newsletter, or other means. For copies of these modification approval letters please refer to appendices B and C, respectively.

#### 3.1 Sample

The desired sample for this study was undergraduate and graduate students, aged 18 and older, who attend colleges or universities in the United States. Students from UT-Arlington were excluded from this study. This quantitative study primarily relied on a combination of convenience and snowball sampling to obtain participants. The sample was drawn by utilizing college and university Facebook groups or main web pages to contact school administrators about the study. Administrators of said groups were asked if they were willing to participate in this study by distributing an informative invitation for the anonymous survey to their students. Additionally, participants were encouraged to invite other

students to participate in the study. Thus, students who are not members of the Facebook community or who are matriculating at another school could participate.

### 3.2 Instrumentation

The present study utilized selected items from the Clinical Ottawa Self-Injury Inventory (OSI; Nixon & Cloutier, 2004), social influence questions provided by Heath, Ross, Toste, Charlebois, and Nedecheva (2009), and basic demographic questions created by the researcher.

#### *3.2.1 Clinical Ottawa Self-Injury Inventory (OSI)*

The Clinical Ottawa Self-Injury Inventory (OSI; Nixon & Cloutier, 2004) is a 27-item questionnaire designed to identify psychosocial correlates of NSSI. Specifically, it inquires about the frequency of self-injuring cognitions, self-injury episodes, suicidal tendencies, severity of wounds, age of onset, how one first thought of engaging in NSSI behavior, motivations for NSSI, disclosure of NSSI behavior, areas of the body injured, methods utilized, feelings after an episode, functions of NSSI, other coping devices, desire to stop engaging in NSSI, and treatments received. Some items contain multiple subparts and others allow respondents to provide both quantitative and qualitative responses.

Since the OSI is an unpublished measure, limited data exists with respect to validity and reliability. In fact, the only psychometric data available is derived from the preliminary study which demonstrated that the test-retest reliabilities for items measuring symptoms and motivation to stop were moderate ( $r=.55$ ,  $r=.52$ , respectively) (as cited in Holly, 2007, p. 36). No information regarding the significance (p value) was reported by the authors. Despite the lack of empirical support for this measure, however, it appears to have content validity and so items concerning areas of the body injured and methods utilized to self-injure were incorporated in the survey for this study to assist in the identification of NSSI severity.

#### *3.2.2 Developed Instrument*

Since the purpose of this study is to assess the relationship between social influence and non-suicidal self-injury, social influence questions provided by Heath, Ross, Toste, Charlebois, and Nedecheva (2009) were utilized in the survey, with their permission. Though said questions are not a standardized measure, the majority of the items were utilized in their past and current studies (Heath et

al., 2009) and assisted with the assessment of social influence. Such questions asked include the following: How did you first think of the idea of injuring yourself? Does anyone know that you have engaged in self-injury? If yes, who? Did you know about a friend's self-injury before the first time you hurt yourself? and so on. Aside from the questions necessitating a 'yes' or 'no' response, most questions are multiple choice and provide a comment box so that an open-ended response is possible.

Additionally, demographic questions were included in this survey regarding personal characteristics of respondents (e.g. age or sex) and characteristics of their educational institution (e.g. current student enrollment). In hopes of identifying common characteristics and/or patterns of those that engage in NSSI and those that do not. Each of the questions in this survey were assessed for inter-rater reliability and content validity by the primary researcher with three committee members during the initial proposal meeting. For a copy of this survey, please refer to Appendix D.

### 3.3 Data Collection

The first step in data collection was to send an invitation e-mail describing the study to college and university Facebook group administrators (except for those from UT-Arlington). These administrators were asked if they or another staff member would be willing to send out an invitation for this survey to their membership or school, utilizing their own discretion with respect to the means. For a copy of the letter, please refer to Appendix E. The survey was administered anonymously through Survey Monkey and the first page of the survey provided information about the study and stated that no one aged 17 and under may participate. Additionally, the first page informed potential participants that every attempt will be made to see that the subjects' study results are kept confidential and that a copy of the records from this study will be stored in Dr. Regina T.P. Aguirre's Office (School of Social Work; SOCW A318) for at least (3) years after the end of this research. The introduction page continued on to state that the results of this study may be published and/or presented at meetings without naming the person as a subject and it informs participants who may have legal access to the study records. Finally, the introduction page of the survey explicated that participation is voluntary and so if subjects agree to participate in this survey they must consent by clicking the "Next" button, otherwise they were asked to exit the survey. Participants were reminded they could withdraw from the study at any time by exiting the survey.

For each of the questions identifying types of participation in non-suicidal self-injury, participants were provided with a link to the hotline and web address for the national agency which specializes in NSSI (S.A.F.E. Alternatives) for help. The information for said agency is: S.A.F.E. Alternatives (Self-Abuse Finally Ends) at: <http://www.selfinjury.com/> or 1-800-DONT CUT (hotline).

Data was gathered via Survey Monkey, because not only is the site secure, but data could then be downloaded into multiple spreadsheet formats for analysis. All downloaded data was password protected and only the primary researcher and chair had access to said data.

### *3.3.1 Threats to Internal and External Validity*

#### *3.3.3.1 Internal Validity*

Validity is of the utmost importance to maintain in this study, especially since it is relatively unprecedented. Despite said imperativeness, however, a few threats to validity exist within this study, because full power of random assignment could not be utilized. Since an exhaustive list of the population could not be obtained the selection of the sample was dependent upon participation from Facebook members and colleges/universities in general. Thus, selection is a threat to this study, because the sample will be limited to those who have access to a computer, are Internet competent, and are able to read and write English. Ergo, the non-traditional student may not be represented in this study. Other anticipated threats to the internal validity of this project are memory decay, history, and attrition.

Memory decay may have impacted the survey results due to the passage of time between NSSI episodes and when they are answering the survey, especially for those participants that may no longer engage in NSSI. History may have been another threat to this study because extraneous variables may influence some participants' responses (Rubin & Babbie, 2008). For instance, any possible media exposure about NSSI could influence how participants respond to the survey or if the survey incites distress in a participant the results could be affected. Since the purpose of this study was to assess the influence of social means like media exposure, it was difficult to determine how to monitor and control this threat. Finally, attrition was a reality in this survey with some participants exiting the survey without finishing, thereby dropping out of the study. To diminish the likelihood of this threat, repetitive items were

eliminated from the survey, such as many items from the OSI questionnaire, and a 'percentage complete' bar was added to the format.

### 3.3.3.2 External Validity

Threats to external validity address whether the results of this study can be generalized to the target population (Rubin & Babbie, 2008). Selection bias may pose the most significant threat to the external validity of this study, because a convenience sample was utilized rather than a random sample. Ergo, generalizing these findings should be done with caution.

## 3.4 Data Analysis

Data were analyzed utilizing the Statistical Package for Social Sciences (SPSS) version 17.0. The significance level for this study was set *a priori* at  $\alpha=.10$  for all inferential statistics since this is an exploratory design (Black, 1999).

### 3.4.1 *Objective 1*

1. Describe those who engage in NSSI on the following characteristics:
  - a. Sex
  - b. Age
  - c. Race
  - d. Hispanic origin
  - e. Current level of education
  - f. Type of higher education institution (e.g. private v. public)
  - g. School's student enrollment
  - h. Areas of the body injured
  - i. Methods of self-injury
  - j. Most utilized self-injury method
  - k. Age of onset
  - l. Location of first NSSI episode
  - m. How the participant first thought of NSSI
  - n. Feelings before and after first NSSI episode



- o. Length of time between first and second episode
- p. Desire to stop self-injuring
- q. How or why the participant stopped engaging in NSSI

These characteristics were analyzed utilizing descriptive statistics, including measures of central tendency. For nominal variables such as sex, race, ethnicity, etc. the frequency and mode were calculated. Ordinal variables such as current level of education were measured with respect to the median. And for interval/ratio variables (e.g. age, age of onset) the mean and standard deviation were calculated.

### 3.4.2 *Objective 2*

2. Describe those who do not engage in NSSI on the following characteristics:
  - a. Sex
  - b. Age
  - c. Race
  - d. Hispanic origin
  - e. Current level of education
  - f. Type of higher education institution (e.g. private v. public)
  - g. School's student enrollment
  - h. Ever thought about engaging in NSSI
  - i. Motivations for not engaging in NSSI
  - j. Ever known anyone who engages in NSSI

The characteristics of objective 2 were calculated the same way as in objective 1.

### 3.4.3 *Objective 3*

3. Describe social interactions around NSSI with respect to motivations for initiation and continued engagement, disclosure to others, and shared methods within peer groups across the variables of:
  - a. If anyone was told after the first NSSI episode
  - b. Who was told about the first NSSI episode

- c. If anyone knows about the participant's NSSI behavior
- d. Who was told about the participant's NSSI behavior
- e. How many of the participant's friends engage in NSSI
- f. If the participant knew about a friend's NSSI behavior before he/she first engaged in NSSI
- g. Frequency of disclosure with friends regarding NSSI
- h. Frequency of self-injuring with friends
- i. Location of self-injury with friends
- j. Suggested idea of self-injuring to another
- k. Disclosure on Internet
- l. Frequency of disclosure on Internet
- m. If friends contribute to continued engagement in NSSI

#### 3.4.4 *Objective 4*

- 4. Describe social interactions of those who do not engage in NSSI across the variables of:
  - a. Motivations for not engaging in NSSI
  - b. Ever known anyone who engages in NSSI
  - c. Thoughts regarding why others engage in NSSI
  - d. How first learned of NSSI

Objectives 3 and 4 were measured utilizing descriptive statistics, particularly in terms of frequency, mean, standard deviation, and mode.

#### 3.4.5 *Objective 5*

- 5. Identify if a relationship exists between social interactions and NSSI.

#### 3.4.6 *Objective 6*

- 6. Compare those who engage in NSSI with those who do not engage in NSSI.

## CHAPTER 4

### RESULTS

The primary purpose of this study was to determine if a relationship exists between social influence and NSSI behaviors among undergraduate and graduate students from participating colleges and universities in the United States. Data was collected from April 7, 2010, to July 2, 2010, which included 307 respondents who initiated the survey. Of those 307 respondents, 75 respondents started the survey for those who engage in NSSI and 232 respondents started the survey for those who do not engage in NSSI. Thirty-three respondents (14 who answered they engage in NSSI and 19 who answered they do not engage in NSSI) did not complete the survey. Thus, 61 respondents completed the survey for those who engage in NSSI and 213 respondents completed the survey for those who do not engage in NSSI with a total of 274 respondents who were included in the data analysis. Findings and analyses are presented in this chapter and organized by objectives.

#### 4.1 Demographic Variables

Objective 1 was to describe those who engage in NSSI on the following characteristics:

- a. Sex
- b. Age
- c. Race
- d. Hispanic origin
- e. Current level of education
- f. Type of higher education institution (e.g. private v. public)
- g. School's student enrollment
- h. Organization affiliations
- i. Current residence
- j. Areas of the body injured
- k. Methods of self-injury

- l. Most utilized self-injury method
- m. Age of onset
- n. Location of first NSSI episode
- o. How the participant first thought of NSSI
- p. Feelings before and after first NSSI episode
- q. Length of time between first and second episode
- r. Desire to stop self-injuring
- s. How or why the participant stopped engaging in NSSI

#### 4.1.1 Sex

The majority of the participants who engage in or have a history of engaging in NSSI were female (N=52, 85.2%) whereas males accounted for 14.8% (N=9).

#### 4.1.2 Age

Age was a continuous variable at the ratio level of measurement. The mean age for those who engage in or have a history of engaging in NSSI was 22.0 years old (SD=3.9) with a range from 18 to 42 years old.

#### 4.1.3 Race

The mode race of those who engage in or have a history of engaging in NSSI was White (N=50, 82.0%). There were five other categories of race (Black, Asian, Native Hawaiian or Pacific Islander, Native American, and Multi-racial) which accounted for 18.0% of participants (N=11). For a complete listing, please refer to Table 4.1.

Table 4.1 Race of Respondents Who Engage in NSSI

	Frequency	Percent
White	50	82.0
Multi-Racial	6	9.8
Asian	3	4.9
Native American	2	3.3
Black	0	0.0
Native Hawaiian/ Pacific Islander	0	0.0
<b>Total</b>	<b>61</b>	<b>100.0</b>

#### 4.1.4 *Hispanic origin*

Of the 61 respondents who engage in or have a history of engaging in NSSI, eight reported that they were of Hispanic origin (13.1%).

#### 4.1.5 *Current level of education*

This ordinal variable was allocated in 8 categories (Undergraduate freshman; Undergraduate sophomore; Undergraduate Junior; Undergraduate Senior; Master's; PhD, MD, DO, JD, or other terminal degree; Non-degree seeking student undergraduate; and Non-degree seeking student graduate). The mode was undergraduate sophomore (N=19, 31.1%) for those who engage in or have a history of engaging in NSSI. The median was undergraduate junior (N=12, 19.7%). For a complete listing, please refer to Table 4.2.

Table 4.2 Current Level of Education for Respondents Who Engage in NSSI

	<b>Frequency</b>	<b>Percent</b>
Undergraduate Sophomore	19	31.1
Undergraduate Junior	12	19.7
Undergraduate Senior	11	18.0
Master's	10	16.4
Undergraduate Freshman	5	8.2
Non-Degree Undergraduate	2	3.3
PhD or Other Terminal Degree	1	1.6
Non-Degree Graduate	1	1.6
<b>Total</b>	<b>61</b>	<b>100.0</b>

#### 4.1.6 *Type of higher education institution (e.g. private v. public)*

The type of higher education institution these respondents matriculate were categorized into public, private (non-faith-based), and private faith-based. The mode of this nominal variable was public (N=30, 49.2%), but those attending private faith-based colleges/universities closely followed with 47.5% of respondents (N=29). Respondents attending private (non-faith-based) colleges/universities only accounted for 3.3% of this sample (N=2).

4.1.7 *School's student enrollment*

The enrollment levels of respondents' colleges/universities were analyzed by categorizing said levels as: 2,000 and under, 2,001 to 10,000, 10,001 to 25,000, 25,001 to 40,000, and 40,000 and above. A category of "Uncertain" was also provided for respondents. The median was 2,001 to 10,000 (N=12, 19.7%). The majority of respondents reported their school's enrollment level to be 2,000 and under (N=19, 31.1%) while the least reported enrollment level was 40,000 and above (N=6, 9.8%). Additionally, 14.8% of respondents stated they were uncertain with respect to their college/university's enrollment level (N=9). Please refer to Table 4.3 for further information about enrollment levels.

Table 4.3 School's Student Enrollment

	<b>Frequency</b>	<b>Percent</b>
2,000 and under	19	31.1
2,001-10,000	12	19.7
10,001-25,000	7	11.5
25,001-40,000	8	13.1
40,000 and above	6	9.8
Uncertain	9	14.8
<b>Total</b>	<b>61</b>	<b>100.0</b>

4.1.8 *Organization affiliations*

Participants were asked to report any organizations with which they have contact more than once a month (church/synagogue/temple, fraternities/sororities, academic, none, and other). For those respondents who reported contact with more than one organization, a code for "the combination of organizations" was provided. The mode was those who reported participation in a combination of the aforementioned organizations (N=25, 41.0%). For a complete listing, please refer to Table 4.4.

Table 4.4 Organization Affiliation

	<b>Frequency</b>	<b>Percent</b>
Combination	25	41.0
Academic	15	24.6
None	13	21.3

Table 4.4 continued

Church/Religious Group	7	11.5
Other	1	1.6
<b>Total</b>	<b>61</b>	<b>100.0</b>

4.1.9 *Current residence*

The respondents were asked to describe their current residence in terms of the categories: on campus, off campus independently, off campus with roommates, and off campus with family. The mode was off campus with family (N=21, 34.4%). For a complete listing, please refer to Table 4.5.

Table 4.5 Current Residence

	<b>Frequency</b>	<b>Percent</b>
Off campus - With family	21	34.4
Off campus - With roommates	14	23.0
On campus	13	21.3
Off campus – Independently	13	21.3
<b>Total</b>	<b>61</b>	<b>100.0</b>

4.1.10 *Areas of the body injured*

Respondents were asked to report any areas of their bodies which they self-injure. According to the analyses of Survey Monkey, the majority of respondents injure(d) the lower arm/wrist area (62.3%). For a complete listing of the areas injured and respective percentages, please refer to Figure F.1 in Appendix F. Since respondents were able to mark more than one area, broader categories were utilized to code and analyze data. Such categories included: the head/facial region, the neck/throat/shoulder region, the front/back torso region, the hips/buttocks/genitals region, the upper/lower arm region, the hand/fingers region, the upper/lower legs region, and the foot/toes region. Categories for “other” and “a combination of the regions” were also utilized. SPSS version 17.0 analyses of this nominal data revealed that the mode was respondents injuring themselves in a combination of regions (N=33, 54.1%). For a complete listing, please refer to Table 4.6 and Figure F.2 in Appendix F.

Table 4.6 Areas Injured

	<b>Frequency</b>	<b>Percent</b>
Combination of Regions	33	54.1
Arm	15	24.6
Hand/Fingers	7	11.5
Head Facial Region	4	6.6
Front/Back Torso	1	1.6
Leg	1	1.6
<b>Total</b>	<b>61</b>	<b>100.0</b>

#### 4.1.11 Methods of self-injury

Since respondents were able to select any number of methods which they utilized to self-injure, the answer choices for item three on the survey were nominally categorized into “wounds that draw blood” (e.g. cutting, scratching, interfering with wound healing, piercing skin with sharp objects, and non-cosmetic piercing of body parts), “ingestion” (e.g. excessive use of street drugs, excessive use of alcohol, taking too much/little medication, and eating or drinking things that are not food), “external injuries not resulting in blood loss” (e.g. burning, hitting, hair pulling, severe nail biting/nail injuries, and headbanging), and “internal injuries” (e.g. trying to break bones) for coding and analysis purposes. Categories of “other” and “a combination of these methods” were also utilized. The mode was a combination of these methods (N=31, 50.8%). The category of wounds that draw blood had the next highest frequency (N=25, 41.0%). For a complete listing, please refer to Table 4.7.

Table 4.7 Methods of NSSI

	<b>Frequency</b>	<b>Percent</b>
Combination of methods	31	50.8
Wounds that draw blood	25	41.0
External injuries not resulting in blood loss	4	6.6
Other	1	1.6
Ingestion	0	0.0
External injuries not resulting in blood loss	0	0.0
Internal injuries	0	0.0
<b>Total</b>	<b>61</b>	<b>100.0</b>



#### 4.1.12 Most utilized self-injury method

Respondents were asked to select which method of NSSI they most preferred. For analyses the original categories of cutting, scratching, etc. were utilized. The mode was cutting which accounted for 42.6% of the respondents (N=26). Scratching contained the next highest frequency (N=9, 14.8%), while the other 16 categories accounted for the remainder of the 42.6 percent. For a complete listing, please refer to Table 4.8 and Figure F.3 in Appendix F.

Table 4.8 Most Utilized Self-Injury Method

	<b>Frequency</b>	<b>Percent</b>
Cutting	26	42.6
Scratching	9	14.8
Hitting	5	8.2
Piercing the skin with sharp objects	4	6.6
Excessive use of street drugs	3	4.9
Excessive use of alcohol	3	4.9
Interfering with wound healing	2	3.3
Hair pulling	2	3.3
Severe nail biting/or nail injury	2	3.3
Taking too much medication	2	3.3
Biting	1	1.6
Head banging	1	1.6
Other	1	1.6
<b>Total</b>	<b>61</b>	<b>100</b>

#### 4.1.13 Age of onset

The mean age of onset for NSSI behaviors was 14.3 and the median was 14.0. The range was 4 to 38 years old. Only one respondent was uncertain with respect to age of onset and thus they were coded as "1=uncertain." The majority of respondents were junior high or high school aged, ages 12 to 17 (N=45, 73.8%). For a complete listing, please refer to Table 4.9.

Table 4.9 Age of Onset

	<b>Frequency</b>	<b>Percent</b>
Uncertain	1	1.6
4	1	1.6
7	1	1.6
8	1	1.6
10	4	6.6
11	2	3.3
12	7	11.5
13	6	9.8
14	8	13.1
15	9	14.8
16	10	16.4
17	5	8.2
18	3	4.9
20	1	1.6
21	1	1.6
38	1	1.6
<b>Total</b>	<b>61</b>	<b>100.0</b>

#### 4.1.14 Location of first NSSI episode

Respondents were asked to report the location of their first NSSI episode by utilizing the categories of: school, work, home, a friend’s house, and other. The mode of this nominal data was home (N=50, 82.0%). School was the second most common location (N=5, 8.2%) while “other” accounted for 4.9% of the sample (N=3). A friend’s house and work were the least reported location by those who engage in or have a history of engaging in NSSI (N=2, 3.3%; N=1, 1.6%, respectively).

#### 4.1.15 How the participant first thought of NSSI

To assist in the determination of causes for the initiation of NSSI behavior respondents were asked to describe how they first thought of NSSI by selecting from the categories of: knew someone else who had, read about it, saw it on television or in a movie, Internet, heard about it in health or another class, heard about it from family, heard about it from peers, discovered accidentally, it just came to me, cannot remember, and other. The mode was “It just came to me” which comprised 36.1% of the sample (N=22). The second most frequent response was a combination of said phenomena since respondents

were permitted to choose more than one category (N=17, 27.9%). For a complete record, please refer to Table 4.10.

Table 4.10 How the Participant First Thought of NSSI

	<b>Frequency</b>	<b>Percent</b>
It just came to me	22	36.1
Combination	17	27.9
Knew someone else who had	8	13.1
Cannot remember	6	9.8
Discover accidentally	3	4.9
Other	3	4.9
Read about it	1	1.6
Saw it on TV/Movie	1	1.6
<b>Total</b>	<b>61</b>	<b>100.0</b>

#### 4.1.16 Feelings before and after first NSSI episode

Respondents were asked to describe their feelings before and after their initial NSSI episode by utilizing the categories of: calm, tense, angry, sad, happy, nervous, overwhelmed, anxious, excited, scared, ashamed, energetic, confident, guilty and other. Many respondents selected more than one category which was apparent by the total number of responses (N=198 for before and N=140 for after). The mode for feelings before the first NSSI episode was sad (N=40, 64.5%) while the mode for feelings after the first NSSI episode was calm (N=29, 46.8%). The next prevalent emotion which occurred after the initial NSSI episode was ashamed (N=19, 30.6%). For a complete listing, please refer to Table 4.11 and Figure F.4.

Table 4.11 Feelings Before and After First NSSI Episode

	<b>Before</b>	<b>After</b>
Calm	1.6%	46.8%
Ashamed	24.2%	30.6%
Sad	64.5%	24.2%
Guilty	14.5%	24.2%
Other	8.1%	21.0%
Scared	17.7%	19.4%
Anxious	37.1%	16.1%

Table 4.11 continued

Overwhelmed	45.2%	11.3%
Angry	43.5%	9.7%
Nervous	14.5%	8.1%
Tense	37.1%	6.5%
Excited	3.2%	3.2%
Happy	4.8%	1.6%
Energetic	1.6%	1.6%
Confident	1.6%	1.6%

*4.1.17 Length of time between first and second episode*

The majority of respondents, 24.6%, reported that their second NSSI episode occurred some time between one day and one week after the initial episode (N=15). The median of this ordinal data was the between one week and one month category. For a complete listing, please refer to Table 4.12.

Table 4.12 Length of Time Between First and Second Episode

	<b>Frequency</b>	<b>Percent</b>
Between one day and one week	15	24.6
Approx. 1 to 6 months later	12	19.7
Between one week and one month	10	16.4
More than one year later	8	13.1
I only self injured that one time	7	11.5
Less than a day	7	11.5
More than 6 months later	2	3.3
<b>Total</b>	<b>61</b>	<b>100.0</b>

*4.1.18 Desire to stop self-injuring*

Respondents were asked if they desired to cease NSSI behavior. Thus, this variable was measured nominally in terms of the categories: yes, no, and “I’ve already stopped.” The mode was “I’ve already stopped” which accounted for 83.6% of the sample (N=51). Just over thirteen percent (13.1%) of the sample reported they desire to stop self-injuring while 3.3% reported they were not interested in discontinuing their NSSI behavior (N=8, N=2, respectively).

4.1.19 How or why the participant stopped engaging in NSSI

To determine the methods utilized to cease NSSI behavior and the reasons for said cessation respondents were asked to select one of the following categories with respect to their self-injurious behaviors: I have not stopped (not applicable), I did it once and did not want to do it again; no longer interested in self-injuring/grew out of it; family, friends, or loved ones were upset by it; exercise and sports took the place of self-injury; journaling and other writing took the place of self-injury; medication (antidepressants, anti-anxiety, etc.); counseling/therapy, and other. The mode was that respondents were no longer interested in self-injuring or grew out of it (N=13, 21.3%). The next most frequent response was “other” which comprised 18.0% of the sample (N=11). While the elucidations for the “other” response were sundry, the majority of respondents who selected the “other” category specified that they abstained from NSSI because of embarrassment, mood stabilization, and because they deemed it as ineffective for pain alleviation. For a comprehensive listing, please refer to Table 4.13.

Table 4.13 How or Why the Participant Stopped Engaging in NSSI

	<b>Frequency</b>	<b>Percent</b>
No longer interested/Grew out of it	13	21.3
Other	11	18.0
Have not stopped	8	13.1
I did it once and didn't do it again	7	11.5
Because of family friends were upset by it	6	9.8
Drinking or Drugs took the place of it	4	6.6
Medication	4	6.6
Journaling/Other writing took the place of NSSI	3	4.9
Counseling/Therapy	3	4.9
Exercise/Sports took the place of NSSI	2	3.3
<b>Total</b>	<b>61</b>	<b>100.0</b>

Objective 2 was to describe those who do not engage in NSSI on the following characteristics:

- a. Sex
- b. Age
- c. Race
- d. Hispanic origin
- e. Current level of education
- f. Type of higher education institution (e.g. private v. public)
- g. School's student enrollment
- h. Organization affiliations
- i. Current residence
- j. Ever thought about engaging in NSSI
- k. Motivations for not engaging in NSSI
- l. Ever known anyone who engages in NSSI

#### *4.1.20 Sex*

The majority of the participants who have never engaged in NSSI were female (N=130, 61.0%) whereas males accounted for 39.0% (N=83).

#### *4.1.21 Age*

Age was a continuous variable at the ratio level of measurement. The mean age for those who do not engage in NSSI was 22.7 years old (SD=5.5) with a range from 18 to 53 years old.

#### *4.1.22 Race*

The mode race of those who do not engage in NSSI was White (N=172, 80.8%). There were five other categories of race (Black, Asian, Native Hawaiian or Pacific Islander, Native American, and Multi-racial) which accounted for 19.4% of participants (N=41). For a complete listing, please refer to Table 4.14.

Table 4.14 Race of Those Who Do Not Engage in NSSI

	<b>Frequency</b>	<b>Percent</b>
White	172	80.8
Asian	18	8.5
Multi-Racial	14	6.6
Black	8	3.8
Native Hawaiian/ Pacific Islander	1	.5
<b>Total</b>	<b>213</b>	<b>100.0</b>

#### 4.1.23 Hispanic origin

Of the 213 respondents who do not engage in NSSI, 22 reported that they were of Hispanic origin (10.3%).

#### 4.1.24 Current level of education

This ordinal variable was allocated in 8 categories (Undergraduate freshman; Undergraduate sophomore; Undergraduate Junior; Undergraduate Senior; Master's; PhD, MD, DO, JD, or other terminal degree; Non-degree seeking student undergraduate; and Non-degree seeking student graduate). The mode was undergraduate senior (N=56, 26.3%) for those who do not engage in NSSI. The median was undergraduate junior (N=52, 24.4%). For a complete listing, please refer to Table 4.15.

Table 4.15 Current Level of Education for Those Who Do Not Engage in NSSI

	<b>Frequency</b>	<b>Percent</b>
Undergrad Freshman	30	14.1
Undergrad Sophomore	41	19.2
Undergrad Junior	52	24.4
Undergrad Senior	56	26.3
Masters	11	5.2
PhD/Terminal Degree	15	7.0
Non-degree Undergrad	5	2.3
Non-degree Graduate	3	1.4
<b>Total</b>	<b>213</b>	<b>100.0</b>

#### 4.1.25 Type of higher education institution (e.g. private v. public)

The type of higher education institution these respondents matriculate were categorized into public, private (non-faith-based), and private faith-based. The mode of this nominal data was public (N=100, 46.9%), but those attending private faith-based colleges/universities closely followed with 43.2% of respondents (N=92). Respondents attending private (non-faith-based) colleges/universities only accounted for 9.9% of this sample (N=21).

#### 4.1.26 School's student enrollment

The enrollment levels of respondents' colleges/universities were analyzed by categorizing said levels as: 2,000 and under, 2,001 to 10,000, 10,001 to 25,000, 25,001 to 40,000, and 40,000 and above. A category of "Uncertain" was also provided for respondents. The median was 2,001 to 10,000 (N=35, 16.4%). The majority of respondents reported their school's enrollment level to be 2,000 and under (N=75, 35.2%) while the least reported enrollment level was 40,000 and above (N=17, 8.0%). 12.7% of respondents stated they were uncertain with respect to their college/university's enrollment level (N=27). Please refer to Table 4.16 for further information about enrollment levels.

Table 4.16 School's Student Enrollment for Those Who Do Not Engage in NSSI

	<b>Frequency</b>	<b>Percent</b>
Public	100	46.9
Private-Faith Based	92	43.2
Private	21	9.9
<b>Total</b>	<b>213</b>	<b>100.0</b>

#### 4.1.27 Organization affiliations

Participants were asked to report any organizations with which they have contact more than once a month (church/synagogue/temple, fraternities/sororities, academic, none, and other). For those respondents who reported contact with more than one organization, a code for "the combination of organizations" was provided. The mode was those who reported participation in a combination of the aforementioned organizations (N=95, 44.6%). For a complete listing, please refer to Table 4.17.



Table 4.17 Organization Affiliations for Those Who Do Not Engage in NSSI

	<b>Frequency</b>	<b>Percent</b>
Combination	95	44.6
Church/Religious Groups	38	17.8
None	38	17.8
Academic	37	17.4
Fraternity/Sorority	3	1.4
Other	2	.9
<b>Total</b>	<b>213</b>	<b>100.0</b>

*4.1.28 Current residence*

The respondents were asked to describe their current residence in terms of the categories: on campus, off campus independently, off campus with roommates, and off campus with family. The mode was off campus with family (N=93, 43.7%). For a complete listing, please refer to Table 4.18.

Table 4.18 Current Residence for Those Who Do Not Engage in NSSI

	<b>Frequency</b>	<b>Percent</b>
Off-Campus - w/Family	93	43.7
On-Campus	53	24.9
Off-Campus - w/Roommates	35	16.4
Off-Campus - Independently	32	15.0
<b>Total</b>	<b>213</b>	<b>100.0</b>

*4.1.29 Ever thought about engaging in NSSI*

Respondents were asked if they ever contemplated engaging in NSSI. This variable was dichotomized into the categories of “yes” and “no.” Eighty-five percent of the sample reported that they never thought about engaging in NSSI (N=181) whereas 15.0% confessed that they have contemplated partaking in NSSI at some period in their lives (N=32).

#### 4.1.30 Motivations for not engaging in NSSI

The thirty-two respondents who reported that they have contemplated engaging in NSSI were then inquired about their motivations for not participating in NSSI. Respondents were asked to select any of the following motivators: family and friends, exercise and sports, journaling and other writing, drinking or taking drugs, medication (antidepressants, anti-anxiety, etc.), counseling/therapy, desire to avoid pain, desire to avoid infection, and other. Respondents who selected more than one of the aforementioned categories were coded and analyzed in the group “combination” and any respondents who skipped this question were coded into a “no response” category. The mode was the combination group which comprised 10.8% of the sample (N=23). For a complete listing, please refer to Table 4.19.

Table 4.19 Motivations for Not Engaging in NSSI

	<b>Frequency</b>	<b>Percent</b>
No response	182	85.4
Combination	23	10.8
Other	5	2.3
Family/Friends	2	.9
Exercise Sports	1	.5
<b>Total</b>	<b>213</b>	<b>100.0</b>

#### 4.1.31 Ever known anyone who engages in NSSI

Dichotomized into “yes” and “no” categories, respondents were asked if they knew anyone who engages in NSSI. The majority (59.2%) reported that they knew someone who engages in NSSI (N=126) while 40.8% stated that they did not know anyone who engages in NSSI (N=87).

### 4.2 Social Interaction Variables

Objective 3 was to describe social interactions around NSSI with respect to motivations for initiation and continued engagement, disclosure to others, and shared methods within peer groups across the variables of:

- a. If anyone was told after the first NSSI episode
- b. Who was told about the first NSSI episode
- c. If anyone knows about the participant’s NSSI behavior

- d. Who was told about the participant's NSSI behavior
- e. How many of the participant's friends engage in NSSI
- f. If the participant knew about a friend's NSSI behavior before he/she first engaged in NSSI
- g. Frequency of disclosure with friends regarding NSSI
- h. Frequency of self-injuring with friends
- i. Location of self-injury with friends
- j. Suggested idea of self-injuring to another
- k. Disclosure on Internet
- l. Frequency of disclosure on Internet
- m. If friends contribute to continued engagement in NSSI

#### *4.2.1 If anyone was told after the first NSSI episode*

The 61 respondents who engage(d) in NSSI were asked if they ever divulged their NSSI behavior to anyone after their first NSSI episode. The majority of respondents, 67.2%, stated that they never told anyone after the first NSSI episode (N=41). However, 32.8% of respondents reported that they did divulge their NSSI behavior to another after the first NSSI episode (N=20).

#### *4.2.2 Who was told about the first NSSI episode*

The 20 respondents who divulged their NSSI behavior to another after the initial NSSI episode were then asked to identify with whom they shared. Respondents were able to select any number of the following categories of people: family member, friend, romantic partner, medical doctor, counselor, teacher, and other. Respondents who chose more than one category were classified as "combination" for analyses purposes and any respondent who was not mandated to address said variable was coded as a "no response." The mode was those who told more than one category of people (N=7, 11.5%). It should be noted that of said mode only five respondents reported telling a counselor. In other words, no one exclusively told a professional counselor. For a comprehensive listing of this variable's data, please refer to Table 4.20.

Table 4.20 Who Was Told About the First NSSI Episode

	<b>Frequency</b>	<b>Percent</b>
No one	41	67.2
Combination	7	11.5
Friend	6	9.8
Romantic partner	4	6.6
Family member	2	3.3
Other	1	1.6
<b>Total</b>	<b>61</b>	<b>100.0</b>

4.2.3 *If anyone knows about the participant's NSSI behavior*

This variable explored whether respondents who engage in NSSI ever divulged their behavior to others. Seventy-seven percent of respondents reported that they told someone about their NSSI behavior some time in their lives (N=47). Twenty-three percent of respondents, however, reported that they have not divulged their NSSI behavior to anyone (N=14).

4.2.4 *Who was told about the participant's NSSI behavior*

The 47 respondents who divulged their NSSI behavior to another were then asked to identify with whom they shared. Respondents were able to select any number of the following categories of people: family member, friend, romantic partner, medical doctor, counselor, teacher, and other. Respondents who chose more than one category were classified as "combination" for analyses purposes and any respondent who was not required to address said variable was coded as a "no response." The mode was those who told more than one category of people (N=37, 60.7%). For a comprehensive listing, please refer to Table 4.21.

Table 4.21 Who Was Told About the Participant's NSSI Behavior

	<b>Frequency</b>	<b>Percent</b>
Combination	37	60.7
No one	12	19.7
Friend	8	13.1
Family member	2	3.3
Romantic partner	2	3.3
<b>Total</b>	<b>61</b>	<b>100.0</b>

#### 4.2.5 *How many of the participants' friends engage in NSSI*

The mean number of respondents' friends who also engage in NSSI was 3.0 (SD=3.9) with a range from 0 to 20 friends.

#### 4.2.6 *If the participant knew about a friend's NSSI behavior before he/she first engaged in NSSI*

Sixty-seven point two percent of respondents reported that they were not aware of a friend's NSSI behavior before their engagement in NSSI (N=41). Conversely, 32.8% of respondents reported that they were cognizant of a friend's NSSI behavior before they participated in NSSI themselves (N=20).

#### 4.2.7 *Frequency of disclosure with friends regarding NSSI*

Respondents were asked how often they discuss NSSI with their friends. Utilizing the categories of never, sometimes, and often it was revealed that 52.5% of respondents never discuss NSSI with their friends (N=32). The category of never was also the median of this ordinal data. However, 44.3% of respondents reported that they sometimes discuss NSSI with their friends (N=27) while 3.3% reported that they often discuss NSSI with their friends (N=2).

#### 4.2.8 *Frequency of self-injuring with friends*

Respondents were asked how often they self-injure with their friends. Utilizing the categories of never, sometimes, and often, the results indicated that the median was "never." Thus, 91.8% of respondents who engage in NSSI stated that they never self-injure with their friends (N=56), while 8.2% reported that they sometimes self-injure with their friends (N=5).

#### 4.2.9 *Location of self-injury with friends*

Respondents were asked to describe where they engaged in NSSI with their friend's by utilizing the categories of: school, work, home, friend's house, car, and other. Respondents who expressed that they did not self-injure with friends were coded as "no response," while those who self-injured in a variety of locations were classified as "combination." The mode was those in the "no response" category which indicates that the majority of the sample does not socially engage in NSSI (N=49, 80.3%). The next greater proportion was those who self-injure in more than one location with their friends or the "combination" group (N=5, 8.2%). For a comprehensive listing, please refer to Table 4.22.

Table 4.22 Location of Self-Injury With Friends

	<b>Frequency</b>	<b>Percent</b>
Did not NSSI with friends	49	80.3
Combination	5	8.2
School	2	3.3
Home	2	3.3
Friend's house	2	3.3
Car	1	1.6
<b>Total</b>	<b>61</b>	<b>100.0</b>

#### 4.2.10 Suggested idea of self-injuring to another

When respondents were asked if they ever suggested the notion of NSSI to another individual, 98.4% reported that they never have (N=60). Thus, only one respondent divulged that he/she proposed the notion of NSSI to another (1.6%).

#### 4.2.11 Disclosure on Internet

Approximately 83.6% of respondents reported that they did not utilize the Internet to discuss their NSSI behavior (N=51), but 16.4% revealed that they have discussed their NSSI behavior via the Internet (N=10).

#### 4.2.12 Frequency of disclosure on Internet

Respondents were asked to describe how often they conversed with others on the Internet about self-injury by selecting a response from the following categories: everyday, few times per week, few times per month, few times per year, and other. The majority of the respondents who engage in NSSI did not respond to this item since they do not utilize the Internet to discuss their NSSI behavior (N=51, 83.6%). However, of the respondents who utilize the Internet to converse about self-injury, 40.0% reported "other" in terms of their frequency (N=4). Upon examination of the "other" responses it was revealed that most of the respondents utilized the Internet to talk about self-injury when they needed support or to offer others support. For a complete listing, please refer to Table 4.23.

Table 4.23 Frequency of Disclosure on Internet

	<b>Frequency</b>	<b>Percent</b>
Everyday	1	10.0
Few times per week	3	30.0
Few times per year	2	20.0
Other	4	40.0
<b>Total</b>	<b>10</b>	<b>100.0</b>

*4.2.13 If friends contribute to continued engagement in NSSI*

When inquired about if friends contributed to their continued engagement in NSSI, 93.4% of respondents reported that friends were not responsible for their continued engagement (N=57). Ergo, only 6.6% of respondents divulged that friends contributed to their continued participation in NSSI (N=4).

Objective 4 was to describe social interactions of those who do not engage in NSSI across the variables of:

- a. Motivations for not engaging in NSSI
- b. Ever known anyone who engages in NSSI
- c. Thoughts regarding why others engage in NSSI
- d. How first learned of NSSI

*4.2.14 Motivations for not engaging in NSSI*

Respondents were asked to describe their motivators which keep them from self-injuring by selecting any of the following categories: family and friends, exercise and sports, journaling and other writing, drinking or taking drugs, medication (antidepressants, anti-anxiety, etc.), counseling/therapy, desire to avoid pain, desire to avoid infection, and other. Respondents who selected more than one of the aforementioned categories were coded and analyzed in the group “combination” and any respondents who skipped this question were coded into a “no response” category. The mode was the combination group which comprised 10.8% of the sample (N=23). For a complete listing, please refer to Table 4.24.

Table 4.24 Motivations for Not Engaging in NSSI

	<b>Frequency</b>	<b>Percent</b>
Did not think about it	182	85.4
Combination	23	10.8
Other	5	2.3
Family/Friends	2	.9
Exercise Sports	1	.5
<b>Total</b>	<b>213</b>	<b>100.0</b>

*4.2.15 Ever known anyone who engages in NSSI*

Dichotomized into “yes” and “no” categories, respondents were asked if they knew anyone who engages in NSSI. The majority of respondents, 59.2%, reported that they knew someone who engages in NSSI (N=126) while 40.8% stated that they did not know anyone who engages in NSSI (N=87).

*4.2.16 Thoughts regarding why others engage in NSSI*

Respondents were asked what they thought were the main reasons for engaging in NSSI. A great proportion of respondents did not provide a response regarding this variable, because they have never known anyone who engages(d) in NSSI. Thus, these respondents were classified as a “no response” category (N=86, 40.4%). The majority of respondents who did report knowing someone who partakes in NSSI indicated that a combination of psychological motivations (e.g. “to release tension,” “to experience a “high,” “to stop feelings of emptiness or loneliness,” “to punish himself/herself,” “to distract himself/herself from painful memories/thoughts,” “to have a feeling of control,” and “to escape from a different kind of pain”) and social motivations (e.g. “to get attention from others,” “to belong to a group,” and “to show others how strong she/he is”) were thought to be the main reason for NSSI (N=72, 33.8%). For a complete listing, please refer to Table 4.25.

Table 4.25 Thoughts Regarding Why Others Engage in NSSI

	<b>Frequency</b>	<b>Percent</b>
Did not know anyone who engages in NSSI	86	40.4
Combination of psychological and social motivations	72	33.8
Psychological motivations	48	22.5
Social motivations	6	2.8
Other	1	.5
<b>Total</b>	<b>213</b>	<b>100.0</b>



#### 4.2.17 How first learned of NSSI

Many respondents who have never engaged in NSSI reported that they first learned about said behavior from their peers (N=66, 31.0%) and television and movies (N=61, 28.6%). For a comprehensive listing, please refer to Table 4.26.

Table 4.26 How Those Who Do Not Engage in NSSI First Learned of NSSI

	<b>Frequency</b>	<b>Percent</b>
Peers	66	31.0
TV/Movies	61	28.6
Class	52	24.4
Family Member	12	5.6
Other	7	3.3
Internet	6	2.8
Book	5	2.3
Radio	4	1.9
<b>Total</b>	<b>213</b>	<b>100.0</b>

Objective 5 was to identify if a relationship exists between social interactions and NSSI.

#### 4.2.18 Pearson's correlation coefficient

To determine if a relationship exists between social influence and NSSI, a Pearson's correlation coefficient was performed. Thus, scores were developed to measure each respondent's level of social influence and his/her level of severity of NSSI.

The scoring procedure for social influence included the following categories of data: how the participant first thought of NSSI, how many of the participant's friends engage in NSSI, if the participant knew about a friend's NSSI behavior before he/she first engaged in NSSI, the participant's frequency of self-injuring with friends, if the participant suggested idea of self-injuring to another, the participant's disclosure on the Internet, his/her frequency of disclosure on the Internet, and if friends contributed to the continued engagement of NSSI. If participants selected any responses pertaining to social influence such as "they knew someone else who had", "read about it", or "saw it on television or in a movie" for the item of how the participant first thought of NSSI, one point was awarded. Ergo, if the participants marked "yes" to the categories of: if the participant knew about a friend's NSSI behavior before he/she first engaged in NSSI, the participant's frequency of self-injuring with friends, if the participant suggested idea of self-

injuring to another, the participant's disclosure on the Internet, and if friends contributed to the continued engagement of NSSI, one point for each was added to each respondent's total score. With respect to the category of how many of the participant's friends engage in NSSI, the provided raw number was added to the total score. Finally, the category pertaining to each respondent's frequency of disclosure on the Internet utilized the following scoring procedure based on the respondents' choices: everyday received four points, few times per week received three points, few times per year received two points, and other received one point. Thus, the maximum possible total score for each respondent who engages in or has a history of engaging in NSSI was over 10.

In regard to the scoring procedure for the level of severity of NSSI, the categories of: age of onset, length of time between first and second episode, and the feelings before and after the first NSSI episode were utilized. To score age of onset the ages participants provided were categorized in accordance to stages in education such as high school and college. Therefore, if a respondent reported that his/her age of onset was 18 to 21 he/she would be categorized in the college range while a respondent who reported onset around ages 6 to 10 would be classified in primary school range. Since previous studies have reported that the typical age of onset occurs in high school and college years (Heath et al., 2008; Holly, 2007), respondents who reported earlier onset were viewed as having more severe conditions of NSSI and consequently received higher scores. The respondent who reported his/her age of onset to be 38 was categorized in the college stage since said respondent was currently encountering the experiences and stressors associated with college. For a complete listing of these categories and their respective scores, please refer to Table 4.27.

Table 4.27 Age of Onset Categories and Scores

	<b>Points</b>	<b>Stages</b>
Uncertain	1	
18-21, 38	2	College
14-17	3	High School
11-13	4	Middle School
6-10	5	Primary School
4	6	Pre-School

With respect to the data regarding the length of time between the first and second episode, scores from one to seven were allocated based upon how quickly the respondent self-injured after the initial episode. For instance, if a respondent reported that the second episode of NSSI was less than a day after the initial episode a score of seven was provided, while a participant who divulged that he/she only self injured one time received a score of one. For a complete listing, please refer to Table 4.28.

Table 4.28 Scores for the Length of Time Between First and Second Episodes

	<b>Points</b>
Less than a day	7
Between one day and one week	6
Between one week and one month	5
Approx. 1 to 6 months later	4
More than 6 months later	3
More than one year later	2
I only self injured that one time	1

The final category of data which was included in the development of the level of severity of NSSI score was the feelings before and after the first NSSI episode. For the feelings before the initial NSSI episode, scores of zero were assigned to counterintuitive or positive emotions such as calm while scores of one were allocated to expected or negative emotions such as overwhelmed or angry. If respondents selected more than one feeling their scores were totaled. The reasoning for this scoring derives from previous studies' findings which indicate that individuals may engage in NSSI to regulate affect, or in other words, to control negative emotions such as anxiety, anger, humiliation, and so forth (Klonsky, 2007; Kress & Hoffman, 2008; Walsh, 2007).

For the feelings after the first NSSI episode, emotions which seem negative such as sad or angry received lower scores, because NSSI did not appear to provide the affect regulation or "escape" which research indicates is the sought end from said behavior (Hoff & Muehlenkamp, 2009; Klonsky, 2007; Kress & Hoffman, 2008; Walsh, 2007). Conversely, more positive emotions (e.g. calm, excited) received higher scores. Again, if respondents selected more than one feeling their scores for each emotion were totaled. For complete listings of the negative and positive emotions utilized in this study's survey and the

feelings before and after the initial NSSI episode with their respective scores, please refer to tables 4.29 and 4.30, respectively.

Table 4.29 Positive and Negative Emotions

<b>Negative</b>	<b>Positive</b>
Angry	Calm
Anxious	Confident
Ashamed	Energetic
Guilty	Excited
Nervous	Happy
Overwhelmed	
Sad	
Scared	
Tense	

Table 4.30 Feelings Before and After With Respective Scores

	<b>Before Points</b>	<b>After Points</b>
Calm	0	2
Tense	1	0
Angry	1	0
Sad	1	0
Happy	0	3
Nervous	1	0
Overwhelmed	1	0
Anxious	1	0
Excited	0	4
Scared	1	0
Ashamed	0	0
Energetic	0	4
Confident	0	3
Guilty	1	0

Just as with the score of social influence, the score of severity of NSSI was calculated by totaling the scores from the aforementioned categories of data. Thus, the maximum possible total score for each respondent who engages in or has a history of engaging in NSSI was well over 18.

Once both scores (the score of social influence [M = 4.16, SD = 4.24] and the score of severity of NSSI [M=10.92, SD = 3.61]) were calculated for each respondent a Pearson's correlation coefficient was performed to determine if a relationship exists between social influence and NSSI. The results indicated

that a positive, direct relationship was found, but it was weak and not statistically significant ( $r=.20$ ,  $p=.12$ ).

Objective 6 was to compare those who engage in NSSI with those who do not engage in NSSI. To complete this objective, tables were constructed to facilitate comprehension and chi-square analyses were performed for categorical and nominal variables.

#### 4.2.19 Basic Demographics

According to descriptive statistics, the majority of respondents from both NSSI and non-NSSI groups were female (N=52, 85.2%; N=130, 61.0%, respectively) and a chi-square analysis demonstrated that there was a statistically significant relationship between sex and NSSI ( $\chi^2 (1, N=274) = 12.5, p < .01$ ). Race was also found to be statistically significant ( $\chi^2 (5, N=274) = 11.0, p = .05$ ) even though 82.0% of those who engage in or have a history of NSSI and 80.8% of those who have never engaged in NSSI reported they were White. With respect to Hispanic origin, a chi-square analysis showed no significant difference in prevalence of NSSI in the overall sample, with 86.9% of those who engage or have a history of engaging in NSSI and 89.7% of those who have never engaged in NSSI indicating that they were not of Hispanic origin. For complete listings of the descriptive statistics and chi-square analyses, please refer to Tables 4.31, 4.32, and 4.33.

Table 4.31 Sex

	NSSI		Non-NSSI	
	Frequency	Percent	Frequency	Percent
Female	52	85.2	130	61.0
Male	9	14.8	83	39.0
<b>Total</b>	<b>61</b>	<b>100</b>	<b>213</b>	<b>100.0</b>
$\chi^2$	12.47		p-value	<.01

Table 4.32 Race

	NSSI		Non-NSSI	
	Frequency	Percent	Frequency	Percent
White	50	82.0	172	80.8
Multi-Racial	6	9.8	14	6.6
Asian	3	4.9	18	8.5
Black	0	0.0	8	3.8

Table 4.32 continued

Native American	2	3.3	0	0.0
Native Hawaiian/Pacific Islander	0	.0	1	.5
<b>Total</b>	<b>61</b>	<b>100.0</b>	<b>213</b>	<b>100.0</b>
$\chi^2$	11.03		p-value	.05

Table 4.33 Hispanic Origin

	NSSI		Non-NSSI	
	Frequency	Percent	Frequency	Percent
Yes	8	13.1	22	10.3
No	53	86.9	191	89.7
<b>Total</b>	<b>61</b>	<b>100.0</b>	<b>213</b>	<b>100.0</b>
$\chi^2$	.38		p-value	.54

In terms of organization affiliations and residence no statistical differences were found between NSSI and non-NSSI groups, with the majority indicating participation in a combination of organizations (N= 25, 41.0%; N=95, 44.6%, respectively) and that they reside off campus with family (N=21, 34.4%; N=93, 43.7%, respectively). For complete listings, please refer to Tables 4.34 and 4.35.

Table 4.34 Organization Affiliations

	NSSI		Non-NSSI	
	Frequency	Percent	Frequency	Percent
Church/Religious Group	7	11.5	38	17.8
Fraternity/Sorority	0	.0	3	1.4
Academic	15	24.6	37	17.4
None	13	21.3	38	17.8
Other	1	1.6	2	.9
Combination	25	41.0	95	44.6
<b>Total</b>	<b>61</b>	<b>100.0</b>	<b>213</b>	<b>100.0</b>
$\chi^2$	3.99		p-value	.55

Table 4.35 Current Residence

	NSSI		Non-NSSI	
	Frequency	Percent	Frequency	Percent
Off-Campus - With family	21	34.4	93	43.7
Off-Campus - With roommates	14	23.0	35	16.4
On-Campus	13	21.3	53	24.9
Off-Campus – Independently	13	21.3	32	15.0
<b>Total</b>	<b>61</b>	<b>100.0</b>	<b>213</b>	<b>100.0</b>
$\chi^2$	3.49		p-value	.32

The mean ages of both groups did differ, however, with 22.0 (SD=3.9) accounting for those who engage or have a history of engaging in NSSI and 22.7 (SD= 5.5) comprising those who have never engaged in NSSI. For a complete listing, please refer to Table 4.36.

Table 4.36 Age

	NSSI	Non-NSSI
N	61	213
Minimum	18	18
Maximum	42	53
Mean	21.95	22.73
Standard Deviation	3.89	5.52

#### 4.2.20 Education

A statistically significant relationship was found between current level of education and NSSI ( $\chi^2$  (7, N=274) = 16.5,  $p = .02$ ). Those who engage in NSSI or who have a history of engaging in NSSI were more likely to be an undergraduate sophomore (N=19, 31.1%), while those who never engaged in NSSI had a greater proclivity of being an undergraduate senior (N=56, 26.3%). With respect to the type of educational institution, however, no statistical differences were found. Both NSSI and non-NSSI groups were more likely to matriculate at public colleges/universities (N=30, 49.2%; N=100, 46.9%, respectively). Though it should be noted that attendance at private-faith-based schools was nearly equal to attendance at public schools for the group who has experience with engaging in NSSI (N=29, 47.5%). In terms of enrollment sizes, the majority of respondents in both NSSI and non-NSSI groups attended

colleges/universities with an enrollment size of 2,000 and under (N=19, 31.1%; N=75, 35.2%, respectively). Thus, a statistically significant relationship between enrollment sizes and NSSI was not found. For more comprehensive listings, please refer to Tables 4.37, 4.38, and 4.39.

Table 4.37 Current Level of Education

	NSSI		Non-NSSI	
	Frequency	Percent	Frequency	Percent
Undergraduate Freshman	5	8.2	30	14.1
Undergraduate Sophomore	19	31.1	41	19.2
Undergraduate Junior	12	19.7	52	24.4
Undergraduate Senior	11	18.0	56	26.3
Master's	10	16.4	11	5.2
PhD/Terminal Degree	1	1.6	15	7.0
Non-degree Undergraduate	2	3.3	5	2.3
Non-degree Graduate	1	1.6	3	1.4
<b>Total</b>	<b>61</b>	<b>100.0</b>	<b>213</b>	<b>100.0</b>
$\chi^2$	16.48		p-value	.02

Table 4.38 Type of Higher Institution

	NSSI		Non-NSSI	
	Frequency	Percent	Frequency	Percent
Public	30	49.2	100	46.9
Private-Faith Based	29	47.5	92	43.2
Private	2	3.3	21	9.9
<b>Total</b>	<b>61</b>	<b>100.0</b>	<b>213</b>	<b>100.0</b>
$\chi^2$	2.70		p-value	.26



Table 4.39 Enrollment Size

	NSSI		Non-NSSI	
	Frequency	Percent	Frequency	Percent
2,000 and under	19	31.1	75	35.2
2,001-10,000	12	19.7	35	16.4
10,001-25,000	7	11.5	27	12.7
25,001-40,000	8	13.1	32	15.0
40,000 and above	6	9.8	17	8.0
Uncertain	9	14.8	27	12.7
<b>Total</b>	<b>61</b>	<b>100.0</b>	<b>213</b>	<b>100.0</b>
$\chi^2$	1.04		p-value	.96

#### 4.2.21 Social influence variables

With respect to the social influence variables of: how respondents first learned of NSSI, if they have ever known anyone who engaged in NSSI, the believed main reasons or motivations for engaging in NSSI, and the motivations for refraining from NSSI, statistical differences between NSSI and non-NSSI groups were found. For instance, with regard to how respondents first learned of NSSI, a chi-square analysis indicated that those who engage or have a history of engaging in NSSI were more likely to report that NSSI behavior was either discovered accidentally, “just came to them,” or they could not remember how they first learned of it (N=36, 59.0%) while those who do not have a history of NSSI most frequently reported that they learned about it from their family, peers, class, or work (N=135, 63.4% [ $\chi^2$  (3, N=274) = 208.6,  $p < .01$ ]). It should be noted that categories combining a few survey choices were utilized for chi-square analysis. For further information about these categories and the findings, please refer to Table 4.40.

Table 4.40 How First Learned of NSSI

	Those who NSSI		Those who do not NSSI	
	Frequency	Percent	Frequency	Percent
T.V, Internet, Radio, Movie and Book	3	4.9	78	36.6
Accidentally, Just came to me, and Cannot remember	36	59	0	0
Family, Peers, Class and Knew someone	9	14.8	135	63.4
Combination	13	21.3	0	0
<b>Total</b>	<b>61</b>	<b>100</b>	<b>213</b>	<b>100</b>
$\chi^2$	208.6		p-value	<.01

With respect to each group's knowledge of friends who self-injure ( $\chi^2 (1, N=274) = 13.2, p <.10$ ), those who engage in NSSI or have a history of NSSI predominately reported that they were not cognizant of any friends who participated in NSSI prior to their own participation (N=41, 67.2%). Conversely, the majority of those who do not engage in NSSI divulged that they have known others who engage in NSSI (N=126, 59.2%). For a complete listing of this variable, please refer to Table 4.41.

Table 4.41 Knowledge of a Friend/Peer's Engagement in NSSI

	NSSI		Non-NSSI	
	Frequency	Percent	Frequency	Percent
Yes	20	32.8	126	59.2
No	41	67.2	87	40.8
<b>Total</b>	<b>61</b>	<b>100.0</b>	<b>213</b>	<b>100.0</b>
$\chi^2$	13.25		p-value	<.01

With regard to the main reasons or motivations for engaging in NSSI, a significant difference was also detected ( $\chi^2 (3, N=274) = 73.7, p <.01$ ). Those who engage in NSSI or have a history of NSSI most frequently reported psychological motivations as the cause for initiation or continued participation in NSSI

(N=49, 80.3%), while those who do not engage in NSSI predominately reported the conviction that a combination of psychological and social motivations were responsible for NSSI behavior (N=72, 33.8%). For a complete listing, please refer to Table 4.42.

Table 4.42 Main Reasons or Motivations for NSSI

	NSSI		Non-NSSI	
	Frequency	Percent	Frequency	Percent
Psychological Motivations	49	80.3	48	22.5
Social Motivations	1	1.6	7	3.3
Do Not Know Anyone Who Engages in NSSI	0	.0	86	40.4
Combination of Psychological and Social Motivations	11	18.0	72	33.8
<b>Total</b>	<b>61</b>	<b>100.0</b>	<b>213</b>	<b>100.0</b>
$\chi^2$	73.70		p-value	<.01

Finally, with respect to the reasons for refraining from NSSI, the categories of: I have not stopped; did it once/grew out of it/avoid pain/avoid infection/it no longer worked, exercise/journaling/therapy/ medication, family/friends, drinking/smoking/drugs, I never thought about it, God/religious faith, and a combination said motivations were utilized for chi-square analysis. A significant difference between NSSI and non-NSSI groups was found in terms of this variable ( $\chi^2 (7, N=274) = 250.3, p <.01$ ). Those who engaged in NSSI predominately reported that they desisted NSSI behavior because they were no longer interested in it, they grew out of it, they wanted to avoid pain or infection, or because it no longer produced the desired effect (N=28, 45.9%), while those who have thought about engaging in NSSI but never actually have, frequently reported that a combination of people and activities kept them from partaking in NSSI (N=23, 10.8). For more information regarding this variable, please refer to Table 4.43.

Table 4.43 Reasons for Refraining from NSSI

	Those who NSSI		Those who do not NSSI	
	Frequency	Percent	Frequency	Percent
Have not stopped	9	14.8	0	0
Did it once, Grew out of it, Avoid pain, Avoid infection and Not working	28	45.9	0	0
Exercise, Journaling, Therapy, and Medication	12	19.7	2	0.9
Family and Friends	7	11.5	2	0.9
Drinking, Smoking and Drugs	5	8.2	1	0.5
Never thought about NSSI	0	0	182	85.4
God/Religious Faith	0	0	4	1.9
Combination	0	0	22	10.3
<b>Totals</b>	<b>61</b>	<b>100</b>	<b>213</b>	<b>100</b>
$\chi^2$	250.3		p-value	<.01

## CHAPTER 5

### DISCUSSION

The primary purpose of this study was to determine if a relationship exists between social influence and NSSI behaviors among undergraduate and graduate students from participating colleges and universities in the United States. Data pertaining to the prevalence and characteristics of NSSI as well as those who engage in or have a history of NSSI were also gathered. These findings are imperative because a paucity of research exists with respect to NSSI demographics within community samples and the relationship between social influence and NSSI.

Gaps that were identified in previous research were addressed: colleges/universities from the southern, Midwestern, and western geographic areas were included in the sample and the variables of type of higher education institution (e.g. private v. public), school's student enrollment, organization affiliations, and current residence were included in the demographics for both those who engage or have a history of engaging in NSSI and those who do not. Additionally, the variables of: ever thought about engaging in NSSI, motivations for not engaging in NSSI, ever known anyone who engages in NSSI, thoughts regarding why others engage in NSSI, and how first learned of NSSI were investigated for those who do not engage in NSSI. This chapter will discuss practical interpretations of findings, implications for practice, future recommendations for research, and this study's relation to the profession of social work.

#### 5.1 Demographic Variables

To minimize superfluousness, variables common to both those who engage in or have a history of engaging in NSSI and those who do not engage in NSSI will be addressed simultaneously in the following sections. Variables which are distinct to each group will be addressed in accordance to the research objectives.

##### 5.1.1 Sex

The majority of the participants who engage in or have a history of engaging in NSSI were female (N=52, 85.2%) whereas males accounted for 14.8% (N=9). This predominance substantiates the findings

of sex differences in past NSSI research (Boudewyn & Liem, 1995; De Leo & Heller, 2004; Hawton et al., 2000; Hawton, Hall, et al., 2003). Ergo, said findings were inconsistent with more recent research which suggests that males and females engage in NSSI at analogous rates (Hawton et al., 2007; Heath, Toste, Nedecheva, & Charlebois, 2008; Klonsky et al., 2003; Muehlenkamp & Gutierrez, 2004; Whitlock, Eckendrode, & Silverman, 2006). A reason for this discrepancy may derive from the differences in the rates of reporting between males and females (Purington & Whitlock, 2004). Furthermore, the fact that more females participated in this study may have contributed to the prevalence of females who engage in NSSI. Additional research is needed to determine sex differences with respect to NSSI and reporting rates.

With respect to those participants who have never engaged in NSSI, a great proportion were female (N=130, 61.0%) whereas males accounted for 39.0% (N=83). Needless to state, this prevalence of female respondents is also apparent when considering the study's entire sample size (N=274). Of the 274 respondents, 66.4% were female while 33.6% were male. Though the 2008 Census Bureau report reveals that the majority of college/university students in undergraduate or graduate programs are female (53.9%), the dispersion of the percentages are more equivalent with males who comprise 46.1% of the population. Thus, this sample may not be representative of the United States' college/university student population.

#### 5.1.2 Age

The mean age for those who engage in or have a history of engaging in NSSI was 21.95 years old (SD=3.89) with a range from 18 to 42 years old. Conversely, the mean age for those who do not engage in NSSI was 22.73 years old (SD=5.52) with a range from 18 to 53 years old. According to the 2008 U.S. Census Bureau, the majority (46.5%) of enrolled students are within the 20 to 24 age range. Ergo, the data on age is deemed to be representative of the collegiate population.

#### 5.1.3 Race

The mode race of those who engage in NSSI was White (N=50, 82.0%). The five other categories of race (Black, Asian, Native Hawaiian or Pacific Islander, Native American, and Multi-racial) accounted for 18.0% of participants (N=11). This prevalence corroborates past research which found that

lifetime prevalence rates of NSSI were highest among White college/university students (Gratz, 2006; Heath et al., 2008; Hoff & Muehlenkamp, 2009; Muehlenkamp, Hoff, Licht, Azure, & Hasenzahl, 2008). This data suggests that those of Caucasian race may be more susceptible to NSSI propensities or that those of other races are more likely to utilize other coping mechanisms due to distinctive cultural resources or strengths. Further research is necessary to better determine the reasons for said prevalence.

Despite the aforementioned recommendation for future research, however, it is imperative to note that the mode race of those who do not engage in NSSI was also White (N=172, 80.8%). The five other categories of race (Black, Asian, Native Hawaiian or Pacific Islander, Native American, and Multi-racial) comprised 19.4% of participants (N=41). Thus, of the total sample, 81.0% were White which is congruent with the findings of the 2008 U.S. Census Bureau for college/university students. Therefore, this data may be representative of the collegiate population.

#### *5.1.4 Hispanic origin*

Of the 61 respondents who engage in or have a history of engaging in NSSI, 8 reported that they were of Hispanic origin (13.1%). Conversely, of the 213 respondents who do not engage in NSSI, 22 reported that they were of Hispanic origin (10.3%). Considering the low number of respondents who were of Hispanic origin, it is recommended that future research attempt to incorporate a higher percentage of those who are of Hispanic ethnicity so that the results may be more generalizable.

#### *5.1.5 Current level of education*

The mode was undergraduate sophomore (N=19, 31.1%) for those who engage in or have a history of engaging in NSSI. The median was undergraduate junior (N=12, 19.7%). To the author's knowledge, prior research has not studied participants from different levels of higher education. Typically, a sample of first year undergraduates was utilized in past research (Heath et al., 2009; Holly, 2007). Thus, more inclusive samples are needed in future NSSI research.

With respect to those who have never engaged in NSSI, the mode was undergraduate senior (N=56, 26.3%) and the median was undergraduate junior (N=52, 24.4%). According to the 2008 U.S. Census Bureau, the mode was undergraduate junior followed by undergraduate senior and then

undergraduate sophomore for the age group of 20 to 24. Without knowing the median of the U.S. student population, it cannot be stated with certainty that a representative sample emerged.

#### *5.1.6 Type of higher education institution (e.g. private v. public)*

The mode for those who engage in or have a history of engaging in NSSI was public (N=30, 49.2%), but those attending private faith-based colleges/universities closely followed with 47.5% of respondents (N=29). Respondents attending private (non-faith-based) colleges/universities only accounted for 3.3% of this sample (N=2). To the author's knowledge, prior research has not had samples comprised of participants from different colleges/universities let alone different types of higher education institutions (Heath et al., 2008; 2009; Hoff & Muehlenkamp, 2009; Holly, 2007, Muehlenkamp et al., 2008). Thus, more comprehensive samples are needed in future NSSI research to better comprehend NSSI characteristics.

In regard to those who do not engage in NSSI, the mode was public (N=100, 46.9%), but those attending private faith-based colleges/universities closely followed with 43.2% of respondents (N=92). Respondents attending private (non-faith-based) colleges/universities only accounted for 9.9% of this sample (N=21). It is uncertain if this sample is representative of the population for the 2008 U.S. Census Bureau did not distinguish between private – faith-based and private (non-faith-based).

#### *5.1.7 School's student enrollment*

The median for those who engage in or have a history of engaging in NSSI was 2,001 to 10,000 (N=12, 19.7%). The majority of respondents reported their school's enrollment level to be 2,000 and under (N=19, 31.1%) while the least reported enrollment level was 40,000 and above (N=6, 9.8%). 14.8% of respondents stated they were uncertain with respect to their college/university's enrollment level (N=9). As with the previously mentioned categories, prior research has not utilized samples outside more than one college/university (Heath et al., 2008; 2009; Hoff & Muehlenkamp, 2009; Holly, 2007, Muehlenkamp et al., 2008). Ergo, it is recommended future research include more inclusive samples to better determine NSSI prevalence and predictors. Since it is unprecedented that an inclusive sample was utilized it is difficult to determine the implications of this data. However, this data may suggest that those attending colleges/universities with enrollment levels of 2,000 and under may have fewer resources to



assist students with unhealthy coping mechanisms or possibly may impose greater expectations and consequently greater stress on their students than colleges/universities with enrollment levels of 40,000 and above.

On the other hand, the median for those who do not engage in NSSI was also 2,001 to 10,000 (N=35, 16.4%). Additionally, the majority of respondents also reported their school's enrollment level to be 2,000 and under (N=75, 35.2%) while the least reported enrollment level was 40,000 and above (N=17, 8.0%). 12.7% of respondents stated they were uncertain with respect to their college/university's enrollment level (N=27). Considering the similarities in median, mode, and the least reported for both groups, the data may indicate that those attending schools with enrollment levels of 2,000 and under are simply more likely to participate in studies than those attending schools with an enrollment of 40,000 and above. Further research is necessary regarding the reporting rates of colleges/universities with differing enrollment sizes.

#### *5.1.8 Organization affiliations*

The mode for those who engage in or have a history of engaging in NSSI was those who reported participation in a combination of organizations (N=25, 41.0%). The next most frequently reported was academic organizations (N=15, 24.6%). While this data may suggest that contact with these organizations has little influence on NSSI prevalence, it is imperative to emphasize that temporal ambivalent precedence exists regarding if the contact with these organizations occurred simultaneously with NSSI behavior and continued after the majority of the respondents ceased NSSI or if their contact initiated after their decision to refrain from NSSI. To the author's knowledge, past NSSI research has not explored participants' affiliations with particular organizations so it is recommended that future research further explore this area to assess NSSI characteristics as well as predictive and protective factors.

With respect to those who do not engage in NSSI, the mode was also those who reported participation in a combination of organizations (N=95, 44.6%). Additionally, the next most frequent responses were church/synagogue/temple (N=38, 17.8%) and those not affiliated with any organization or "none" (N=38, 17.8%). This data may either indicate that contact with organizations outside of the educational setting may serve as a protective factor or motivator to refrain from NSSI propensities or that

organization affiliation is not necessary to protect against NSSI tendencies. The latter may signify then that those who do not engage in NSSI possess other characteristics or motivations which defend against NSSI inclinations. Since the U.S. Census Bureau does not provide data pertaining to organization affiliation and college/university students it cannot be stated with certainty that this is a representative sample of the U.S. collegiate population.

#### *5.1.9 Current residence*

The mode for those who engage in or have a history of engaging in NSSI was off campus with family (N=21, 34.4%) which was followed by off campus with roommates (N=14, 23.0%). With respect to those who do not engage in NSSI, the mode was also off campus with family (N=93, 43.7%) which was followed by on campus (N=53, 24.9%). Since neither past NSSI research or the U.S. Census Bureau has provided data pertaining to residence and college/university students it is uncertain whether these results can be generalized to the population and if they harbor any significant implications regarding the prevalence of NSSI. Ergo, it is recommended that future research investigate if residence and with whom participants are living influence NSSI prevalence.

### 5.2 Objective One

The first objective was to describe those who engage in NSSI in terms of demographic and NSSI characteristics. Having already discussed the demographic variables, the first three NSSI variables (areas of the body injured, methods of self-injury, and most utilized self-injury method) will be addressed.

#### *5.2.1 Areas of the body injured*

The majority of respondents injure(d) the lower arm/wrist area (62.3%). This finding is consistent with past NSSI research which demonstrated that the extremities are most commonly injured (Simeon & Hollander, 2001; Rao, 2006; Walsh, 2007). Additional analyses utilizing the broader categories of: the head/facial region, the neck/throat/shoulder region, the front/back torso region, the hips/buttocks/genitals region, the upper/lower arm region, the hand/fingers region, the upper/lower legs region, the foot/toes region, a combination of the regions, and other, revealed that the mode was respondents injuring themselves in a combination of regions (N=33, 54.1%). To the author's knowledge, past research has not

empirically demonstrated this occurrence which signifies that future research should further explore this phenomenon, especially to determine if injuring in multiple regions of the body is indicative of severity.

### *5.2.2 Methods of self-injury and most utilized self-injury method*

This present study utilized the categories of: wounds that draw blood, ingestion, external injuries not resulting in blood loss, internal injuries, a combination of these methods, and other to determine which type of methods were most utilized. The results indicated that the mode was a combination of the aforementioned methods (N=31, 50.8%) and that the category of wounds that draw blood had the next highest frequency (N=25, 41.0%). Furthermore, this study found that the most utilized self-injury method was cutting which accounted for 42.6% of the respondents (N=26). These findings substantiate past research which found that the most common methods tend to be wounds that draw blood, particularly cutting (Klonsky, 2007; Laukkanen et al., 2009; Nock et al., 2006; Walsh, 2007). Despite this corroboration, it should be noted that other research has reported scratching as the most prevalent method (Holly, 2007).

This study's findings regarding the aforementioned three NSSI variables allude to the recommendation that therapists, counselors, and other helping professionals maintain a "not-knowing" position which motivates them to continue to ask questions about which areas clients self-injure and the methods utilized. If clinicians do not remain cognizant of the fact that those who engage in self-injury may self-injure on various locations of their bodies and employ several self-injuring methods they may erroneously assume that the clients have ceased to self-injure, because the presenting area and method is no longer being reported.

### *5.2.3 Location of first NSSI episode and how the participant first thought of NSSI*

The majority of the sample reported that they first engaged in NSSI at home (N=50, 82.0%) and that the thought of NSSI "just came to them" (N=22, 36.1%). This data suggests that NSSI is a private behavior and that those who engage in NSSI are predominately unaware of their psychological and/or social motivations for partaking in NSSI. Further research, especially qualitative, is needed to determine the motivations for NSSI and whether it is more often a privatized ritual.

#### 5.2.4 *Feelings before and after first NSSI episode and length of time between first and second episodes*

The mode for feelings before the first NSSI episode was sad (N=40, 64.5%) while the mode for feelings after the first NSSI episode was calm (N=29, 46.8%). With respect to the length of time between the first and second episodes, this study found that the majority of respondents, 24.6%, reported that their second NSSI episode occurred some time between one day and one week after the initial episode (N=15). The median was the between one week and one month category. The more positive emotions after the first NSSI episode seems to indicate that NSSI provided affect regulation or satisfied some psychological or social need which then reinforced NSSI propensities. Thus, the augmented proclivity toward NSSI seems to have led to a quicker reoccurrence of NSSI. Further research is needed to discover if these results are replicated in other community samples.

#### 5.2.5 *Age of onset, desire to stop self-injuring, and how or why the participant stopped engaging in NSSI*

This present study found that the mean age of onset for NSSI behaviors was 14.25 and the median was 14.00. The range was 4 to 38 years old. Only one respondent was uncertain with respect to age of onset. This finding is consistent with past research which suggested that the age of onset typically occurs during adolescence (Heath et al., 2008; Holly, 2007). Yet it is imperative to note that this study indicates that the age of onset was much younger than the high school years which past research emphasizes.

With respect to the respondents' desire to stop self-injuring, the mode was "I've already stopped" which accounted for 83.6% of the sample (N=51). Just over thirteen percent of the sample reported that they desire to stop self-injuring while 3.3% reported that they were not interested in discontinuing their NSSI behavior (N=8, N=2, respectively). Furthermore, the majority of respondents indicated that they ceased NSSI, because they were no longer interested in self-injuring or grew out of it (N=13, 21.3%) or because of embarrassment, mood stabilization, and/or the realization that it is ineffective for pain alleviation ("other," N=11, 18.0%). These findings suggest that while NSSI predominately initiates in adolescence, the behaviors seem to diminish or cease over time for some youth. This trend substantiates prior research (Heath et al., 2008; 2009; Holly, 2007), but it is important to remember that

some youth continue to struggle with NSSI. Ergo, considering the prevalence of NSSI in adolescence and the number of individuals who continue to struggle with NSSI, it can be inferred that service providers, teachers, and school officials need to intervene and emphasize primary and secondary prevention in schools and higher educational institutions. It is recommended that these professionals assist in the identification and treatment of those who engage in NSSI.

### 5.3 Objective Two

The second objective was to describe those who do not engage in NSSI in terms of demographic and NSSI characteristics. Since the demographic variables were already addressed, the variables of: ever thought about engaging in NSSI, motivations for not engaging in NSSI, and ever known anyone who engages in NSSI will be discussed. Eighty-five percent of respondents reported that they have never contemplated engaging in NSSI (N=181) whereas 15.0% confessed that they have contemplated partaking in NSSI at some period in their lives (N=32). The 32 respondents who reported that they have contemplated engaging in NSSI were then inquired about their motivations for not participating in NSSI. The mode was the combination group (e.g. those who selected more than one of the motivational categories such as family and friends, exercise and sports, journaling and other writing, drinking or taking drugs, etc.) which comprised 10.8% of the sample (N=23). This data suggests that despite any thoughts of NSSI, having a valued supportive network and being involved in a number of activities can defend against NSSI propensities or displace them through other means such as drinking or taking drugs. It should also be noted that though 59.2% reported that they knew someone who engages in NSSI (N=126), none of the respondents were influenced to partake in NSSI. Since the investigation of those who do not engage in NSSI with regard to NSSI characteristics is virtually unprecedented it is encouraged that future research replicate this study to help determine other differences between the groups and protective factors.

### 5.4 Objective Three

The third objective was to describe social interactions around NSSI with respect to motivations for initiation and continued engagement, disclosure to others, and shared methods within peer groups. The variables regarding disclosure to others (e.g. if anyone was told after first NSSI episode, who was told

about the first NSSI episode, if anyone knows about the participant's NSSI behavior, who was told about the participant's NSSI behavior, the frequency of disclosure with friends regarding NSSI, the disclosure on the Internet, the frequency of disclosure on the Internet, and if the participants ever suggested the idea of self-injuring to another) will be addressed first.

#### 5.4.1 *Disclosure to others*

Of the 61 respondents who engaged(d) in NSSI, 67.2% stated that they never told anyone after the first NSSI episode (N=41). However, 32.8% of respondents reported that they did divulge their NSSI behavior to another after the first NSSI episode (N=20). The 20 respondents who divulged their NSSI behavior to another after the initial NSSI episode were then asked to identify with whom they shared. The mode was those who told more than one person such as a family member, friend, romantic partner, counselor, etc. (N=7, 11.5%). Not only did respondents divulge to others after their first NSSI episode, but 77.0% of the total sample reported that they told someone about their NSSI behavior at some point in their lives (N=47). Of those 47 respondents, the majority told more than one person (N=37, 60.7%) while the next highest frequency was that a friend was told (N=8, 13.1%). When asked how often they discuss NSSI with their friends 44.3% of the total sample reported that they sometimes discuss NSSI with their friends (N=27). These data corroborate the findings of past research which demonstrated that the majority of those who engage in NSSI talk about their NSSI with others, but it was inconsistent with the past findings that they predominately talk about it with their friends (Heath et al., 2009; Hodgson, 2004; Holly, 2007).

With respect to disclosure via the Internet, 83.6% of respondents reported that they did not utilize the Internet to discuss their NSSI behavior (N=51), but 16.4% revealed that they have discussed their NSSI behavior via the Internet (N=10). Of those who utilized the Internet to discuss their NSSI behavior, 40.0% reported that they utilized the Internet to talk about self-injury when they needed support or to offer others support (N=4). While scant research exists with respect to disclosure on the Internet and NSSI, the findings of this study is consistent with past research which suggests that Internet disclosure may help augment social support for NSSI (Whitlock et al., 2007).

Despite the fact that those who engage in NSSI are conversing with others about their NSSI behaviors, this study found that 98.4% of respondents reported that they never have suggested the notion of self-injuring to another (N=60). Thus, only one respondent divulged that he/she proposed the notion of NSSI to another (1.6%). These data indicate that the intentions of these conversations about NSSI may center on support rather than social persuasion. Additionally, the findings suggest that counselors and other helping professionals are typically not the ones to which those who engage in NSSI are talking which is consistent with prior research (Gratz, Conrad, & Roemer, 2002; Klonsky, 2007; Whitlock et al., 2006). Ergo, further research is necessary to determine why those who engage in NSSI do not talk more to counselors and other helping professionals about NSSI. Furthermore, it may be beneficial for those in practice to assist in the augmentation of societal awareness of NSSI and to help educate youth about the dangers, health risks, and guidelines of NSSI treatment and support since those who engage in NSSI are likely not to report it to a professional.

#### *5.4.2 Influence of friends/peers*

Finally, the variables regarding the influence of friends/peers will now be discussed. These variables include: how many of the participant's friends engage in NSSI, if the participant knew about a friend's NSSI behavior, the frequency of self-injuring with friends, the location of self-injuring with friends, and if friends contributed to the continued engagement in NSSI.

This study found that the mean number of respondents' friends who also engage in NSSI was 3.00 (SD=3.88) with a range from 0 to 20 friends. In addition, 67.2% of respondents reported that they were not aware of a friend's NSSI behavior before their engagement in NSSI (N=41). Conversely, 32.8% of respondents reported that they were cognizant of a friend's NSSI behavior before they participated in NSSI themselves (N=20). These findings are higher than those reported in past research. For instance, Farazza and Conterio (1989) reported that 24% of their sample had at least one friend who also engaged in NSSI while Heath et al. (2009) reported that 74% of their participants also had at least one friend who engaged in NSSI. Furthermore, only 22% of the latter sample reported that they knew someone else who had engaged in NSSI prior to their own engagement (Heath et al., 2009). These data suggest that friends/peers may be influential with respect to the initiation of NSSI.

Despite the aforementioned findings, however, 91.8% of respondents who engage in NSSI stated that they never self-injure with their friends (N=56), while 8.2% reported that they sometimes self-injure with their friends (N=5). Of those who self-injure with friends, the majority reported that they have self-injured in more than one location with their friends (N=5, 8.2%). The findings of this study are inconsistent with past research which found higher percentages of participants who self-injure with or in front of their friends (Heath et al., 2009; Holly, 2007). Overall, 93.4% of this study's respondents reported that friends were not responsible for their continued engagement in NSSI (N=57). Thus, these data suggest discrepancies still exist with respect to social influence and NSSI and that psychological and emotional motivations for NSSI may be more prevalent than generally thought. Further research is needed regarding the influence of peers and friends on NSSI behaviors during adolescence.

#### 5.5 Objective Four

Objective four was to describe social interactions of those who do not engage in NSSI across the variables of: their motivations for not engaging in NSSI, if they have ever known anyone who engages in NSSI, their thoughts regarding why others engage in NSSI, and how they first learned of NSSI. The first two variables were already addressed in the objective two discussion section. For information pertaining to the implications of their data and recommendations for future research and practice, please refer to the objective two discussion section. Thus, the latter two variables will be addressed in this section.

Respondents who knew someone who self-injures were asked what they thought were the main reasons for engaging in NSSI. The majority of respondents indicated that a combination of psychological motivations (e.g. "to release tension," "to experience a "high," "to stop feelings of emptiness or loneliness," "to punish himself/herself," "to distract himself/herself from painful memories/thoughts," "to have a feeling of control," and "to escape from a different kind of pain") and social motivations (e.g. "to get attention from others," "to belong to a group," and "to show others how strong she/he is") were thought to be the main reason for NSSI (N=72, 33.8%). Additionally, the total sample of those who do not engage in NSSI reported that they first learned about said behavior from socially influenced means such as their peers (N=66, 31.0%) and television and movies (N=61, 28.6%). These findings suggest that a great amount of knowledge of NSSI derives from socially influenced means and thus those who engage in



NSSI are also susceptible to said means. While research indicates that the motivations for NSSI can be both psychological and social, more informed awareness is needed on this topic. Additionally, future research may benefit from including samples of those who do not engage in NSSI to assess their perspectives and reactions to their peers or friends who engage in NSSI.

#### 5.6 Objective Five

Objective five was to identify if a relationship exists between social interactions and NSSI. Past research has offered support for Bandura's social modeling effects in regard to NSSI (Heath et al., 2009; Hodgson, 2004; Holly, 2007; Muehlenkamp et al., 2008). This present study conducted a Pearson's correlation coefficient utilizing the developed scores of social influence and severity of NSSI. The results indicated that a positive, direct relationship was found, but it was weak and not statistically significant ( $r=.20$ ,  $p=.12$ ). These data suggest that while psychological motivations may predispose individuals to NSSI, social influences such as peers and/or media exposure may augment the proclivity of NSSI and provide an environment where engaging in it is more possible. Understanding the effects of social influence on NSSI could offer beneficial strategies for clinicians and other helping professionals when working with clients who engage in NSSI. Ergo, future research studying the relationship between social influence and NSSI is needed, especially to determine if a statistically significant relationship can be found.

#### 5.7 Objective Six

Objective six was to compare those who engage in NSSI with those who do not engage in NSSI. The results of this study indicated that there were no notable differences between the groups with respect to: Hispanic origin, organization affiliations, current residence, type of higher education institution (e.g. private v. public), and schools' student enrollment size. These findings suggest that those who engage in NSSI may be more analogous to the average college/university student who does not engage in NSSI than previously contemplated. Of interest is that type of institution and enrollment size did not differentiate those who engage from those who do not. This is important to note as it is common for parents and guardians to consider faith-based/private institutions and institutions with smaller enrollments to be "safer."

There were, however, significant differences between the groups with respect to: sex, race, current level of education, how the participants first learned or thought of NSSI, knowledge of others who engage in NSSI, the thoughts or motivations for engaging in NSSI, and the thoughts or motivations for refraining from NSSI. While there were differences between the groups in terms of current level of education, such differences were rather small and less notable than the other aforementioned differences. Upon investigation of said variables, it became apparent that those who engage in NSSI were more likely to report psychological motivations while those who do not engage in NSSI favored social interactions or a combination of psychological and social motivations.

Said phenomenon is particularly apparent when the modes of the variables are considered. For instance, with regard to how respondents first learned of NSSI, those who engage or have a history of engaging in NSSI most frequently reported that the notion of partaking in NSSI “just came to them” (N=22, 36.1%), while those who do not engage in NSSI most frequently reported that they learned about it from their peers (N=66, 31.0%). Furthermore, with regard to the main reasons or motivations for engaging in NSSI, those who engage in NSSI or have a history of NSSI most frequently reported psychological motivations as the cause for initiation or continued participation in NSSI (N=46, 75.4%), while those who do not engage in NSSI predominately reported the conviction that a combination of psychological and social motivations were responsible for NSSI behavior (N=72, 33.8%). Finally, with respect to the reasons for refraining from NSSI, those who engaged in NSSI predominately reported that they desisted NSSI behavior because they were “no longer interested in NSSI or grew out of it” (N=13, 21.3%), while those who have never engaged in NSSI most frequently reported that a combination of people and activities kept them from partaking in NSSI (N=23, 10.8). Not only do these data indicate that those who engage in NSSI possess psychological and emotional vulnerabilities which augment their proclivity toward NSSI, but it also suggests that they may be less cognizant of social influence. It is recommended that future research explore these differences between those who engage in or have a history of NSSI and those who do not so that more effectual treatment practices are developed and more protective and predictive factors are identified.

### 5.8 Limitations of the Study

The findings of this study should be interpreted with caution for several reasons. First, the nature of the online survey did not permit respondents to ask questions for clarification and so they were required to answer the items to the best of their abilities. Additionally, despite the survey's online nature, the sample sizes for those who engage in NSSI or have a history of NSSI and for those who do not engage in NSSI were rather small (N=61, N=213, respectively). Attrition did not help the sample sizes for 33 respondents did not complete the survey. Furthermore, an ethnically diverse sample was not gathered. There was an incredibly low amount of respondents who were Black, Asian, multi-racial, and of Hispanic origin. Finally, this study relied on non-standardized self-report measures to generate data. Ergo, the results are less generalizable.

### 5.9 Recommendations for Future Research

While the implications of this study's findings and specific recommendations for future research have been discussed in each section of this chapter, it is imperative to re-emphasize that future research needs to further assess the relationship between social influence and NSSI so that additional predictive and protective factors can be identified. Replication of this study and identification of the aforementioned factors may further assist in the determination of more effectual treatment methods for NSSI. Additionally, it is recommended that psychometric measures in this field are developed.

### 5.10 Conclusion

The findings of this study are imperative, because minimal research regarding social influence and NSSI exists. In many ways this was an unprecedented study for it utilized an inclusive sample with respect to demographics and incorporated participation from those who do not engage in NSSI. Roughly, this study found that 2 of 9 people in this sample engage in or have a history of engaging in NSSI. This prevalence and the fact that the majority of respondents who have experience with NSSI did not discuss said behavior with counselors or other mental health professionals signify the importance of continued research. As more research is conducted on NSSI, it is hoped that clinicians will become more willing, knowledgeable, and comfortable when working with this population and that more effectual prevention and treatment methods will be developed. Especially since, the National Association of Social Workers'

code of ethics emphasizes the imperativeness of expanding one's knowledge of and exuding acceptance toward the oppressed and in need (Boyle et al., 2008).

APPENDIX A

IRB #2010-0178 APPROVAL LETTER



March 5, 2010

Terin Marie Driggers  
Dr. Regina Aguirre  
The University of Texas at Arlington  
School of Social Work  
Box 19129

**EXPEDITED APPROVAL OF HUMAN SUBJECT RESEARCH WITH  
WAIVER/ALTERATION TO INFORMED CONSENT**

Office of Research Administration  
Box 19188  
202 E. Border St., Suite 214  
Arlington, Texas  
76019-0188

**IRB No.:** 2010-0178  
**TITLE:** *Non-suicidal Self Injury (NSSI) and Social Influence*  
**Effective Date:** March 3, 2010  
**Expiration Date:** March 2, 2011

T 817.272.3723  
F 817.272.1111

**Approved Number of Participants: 5,000 (Do not exceed without prior IRB approval).**

<http://www.uta.edu/research>  
Expertise at UT Arlington  
<http://www.uta.edu/expertise>

The University of Texas Arlington Institutional Review Board (UTA IRB) has made the determination that this research protocol involving human subjects is eligible for expedited review in accordance with Title 45 CFR 46.110(a)-(b)(1), 63 FR 60364 and 63 FR 60353, category (7). The IRB Chairman (or designee) approved this protocol effective March 3, 2010. IRB approval for the research shall continue until March 2, 2011.

**APPROVED NUMBER OF PARTICIPANTS:**

This protocol has been approved for enrollment of a maximum of 5,000 participants and is not to exceed this number. If additional data are needed, the researcher must submit a modification request to increase the number of approved participants **before** the additional data are collected. Exceeding the number of approved participants is considered an issue of non-compliance and will result in the destruction of the data collected beyond the approval number and will be subject to deliberation set forth by the IRB.

**WAIVER/ALTERATION OF INFORMED CONSENT**

The above referenced study qualifies for a waiver of the requirement to obtain Informed Consent under the federal guidelines for the protection of human subjects as referenced at Title 45 CFR 46.116(d)(1)-(4). The procedures indicated in the study provide that:

1. the research involves no more than minimal risk to the subjects;
2. the waiver will not adversely affect the rights and welfare of the subjects;
3. the research could not practicably be carried out without the waiver, and
4. whenever appropriate, the subject will be provided with additional pertinent information after participation.

**MODIFICATION TO AN APPROVED PROTOCOL:**

Pursuant to Title 45 CFR 46.103(b)(4)(iii), investigators are required to, "promptly report to the IRB any proposed changes in the research activity, and to ensure that such changes in approved research, during the period for which IRB approval has already been given, are **not initiated without prior IRB review and approval** except when necessary to eliminate apparent immediate hazards to the subject." Modifications include but are not

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limited to: Changes in protocol personnel, number of approved participants, and/or updates to the protocol procedures or instruments and must be submitted via the electronic submission system. Failure to obtain approval for modifications is considered an issue of non-compliance and will be subject to review and deliberation by the IRB which could result in the suspension/termination of the protocol.

**ANNUAL CONTINUING REVIEW:**

In order for the research to continue beyond the first year, a Continuing Review must be completed via the online submission system within 30 days preceding the date of expiration indicated above. A reminder notice will be forwarded to the attention of the Principal Investigator (PI) 30 days prior to the expiration date. Continuing review of the protocol serves as a progress report and provides the researcher with an opportunity to make updates to the originally approved protocol. Failure to obtain approval for a continuing review will result in automatic *expiration of the protocol* all activities involving human subjects must cease immediately. The research will not be allowed to commence by any protocol personnel until a new protocol has been submitted, reviewed, and approved by the IRB. Per federal regulations and UTA's Federalwide Assurance (FWA), there are no exceptions and no extensions of approval granted by the IRB. The continuation of study procedures after the expiration of a protocol is considered to be an issue of non-compliance and a violation of federal regulations. Such violations could result in termination of external and University funding and/or disciplinary action.

**ADVERSE EVENTS:**

Please be advised that as the principal investigator, you are required to report local adverse (unanticipated) events to The UT Arlington Office of Research Administration; Regulatory Services within 24 hours of the occurrence or upon acknowledgement of the occurrence.

**HUMAN SUBJECTS TRAINING:**

All investigators and key personnel identified in the protocol must have documented Human Subjects Training or CITI Training on file with The UT Arlington Office of Research Administration; Regulatory Services. Completion certificates are valid for 2 years from completion date.

**COLLABORATION:**

If applicable, approval by the appropriate authority at a collaborating facility is required prior to subject enrollment. If the collaborating facility is *engaged in the research*, an OHRP approved Federalwide Assurance (FWA) may be required for the facility (prior to their participation in research-related activities). To determine whether the collaborating facility is engaged in research, go to: <http://www.hhs.gov/ohrp/humansubjects/assurance/engage.htm>

**CONTACT FOR QUESTIONS:**

The UT Arlington Office of Research Administration; Regulatory Services appreciates your continuing commitment to the protection of human research subjects. Should you have questions or require further assistance, please contact Robin Dickey by calling 817-272-9329.

Sincerely,

Patricia Turpin, Ph.D., RN, NEA, BC  
Clinical Associate Professor  
UT Arlington IRB Chair

APPENDIX B

IRB #2010-0178 MODIFICATION LETTER 1





Terin Driggers  
Dr. Regina Aguirre  
School of Social Work  
The University of Texas at Arlington  
Box 19129

April 12, 2010

Office of Research  
Administration  
Box 19188  
202 E. Border St., Suite 214  
Arlington, Texas  
76019-0188  
T 817.272.3723  
F 817.272.1111  
<http://www.uta.edu/research>  
[Expertise at UT Arlington](http://www.uta.edu/expertise)  
<http://www.uta.edu/expertise>

**IRB No.: 2010-0178**

**RE:** Minor Modification Approval Letter

**Title:** *Non-suicidal Self Injury (NSSI) and Social Influence*

The UT Arlington Institutional Review Board (UTA IRB) Chair (or designee) reviewed and approved the modification(s) to this protocol on **April 6, 2010** in accordance with Title 45 CFR 46.110(b)(2). Therefore, you are authorized to conduct your research. The modification(s), indicated below, was deemed minor and appropriate for expedited review.

- **Move the demographic questions to the end of the survey for those who engage in NSSI and those who do not.**
- **The word “non-cosmetic” was added to choice of piercing of the body parts**
- **A new question pertaining to motivation for NSSI was added.**
- **The education level questions were slightly modified**
- **The answer choice “uncertain” was added to Item 34**
- **Items 35, 36, 38, 40, 42 were updated to clarify and broaden potential answers as well as an option to provide contact information**

Pursuant to Title 45 CFR 46.103(b)(4)(iii), investigators are required to, “promptly report to the IRB any proposed changes in the research activity, and ensure that such changes in approved research, during the period for which IRB approval has already been given, **are not initiated without IRB review and approval** except when necessary to eliminate apparent immediate hazards to the subject.”

The modification approval will additionally be presented to the convened board on May 11, 2010 for full IRB acknowledgment [45 CFR 46.110(c)]. All investigators and key personnel identified in the protocol must have documented *Human Subjects Training* or *CITI* Training on file with the UT Arlington Office of Research Administration Regulatory Services.

The UT Arlington Office of Research Administration appreciates your continuing commitment to the protection of human research subjects. Should you have questions or require further assistance, please contact Robin Dickey by calling (817) 272-9329.

Sincerely,

Patricia Turpin, Ph.D., RN, NEA, BC  
Clinical Associate Professor  
UT Arlington IRB Chair

APPENDIX C

IRB #2010-0178 MODIFICATION LETTER 2



April 28, 2010

Terin Driggers  
Dr. Regina Aguirre  
School of Social Work  
The University of Texas at Arlington  
Box 19129

Office of Research  
Administration  
Box 19188  
202 E. Border St., Suite 214  
Arlington, Texas  
76019-0188  
T 817.272.3723  
F 817.272.1111

<http://www.uta.edu/research>  
Expertise at UT Arlington  
<http://www.uta.edu/expertise>

**IRB No.:** 2010-0178

**RE:** Minor Modification Approval Letter

**Title:** *Non-suicidal Self Injury (NSSI) and Social Influence*

The UT Arlington Institutional Review Board (UTA IRB) Chair (or designee) reviewed and approved the modification(s) to this protocol on **April 19, 2010** in accordance with Title 45 CFR 46.110(b)(2). Therefore, you are authorized to conduct your research. The modification(s), indicated below, was deemed minor and appropriate for expedited review.

- **Allow the college/university of choice to have discretion as to how the information is distributed to the students rather than by the Facebook page**

Pursuant to Title 45 CFR 46.103(b)(4)(iii), investigators are required to, “promptly report to the IRB any proposed changes in the research activity, and ensure that such changes in approved research, during the period for which IRB approval has already been given, **are not initiated without IRB review and approval** except when necessary to eliminate apparent immediate hazards to the subject.”

The modification approval will additionally be presented to the convened board on May 11, 2010 for full IRB acknowledgment [45 CFR 46.110(c)]. All investigators and key personnel identified in the protocol must have documented *Human Subjects Training* or *CITI Training* on file with the UT Arlington Office of Research Administration Regulatory Services.

The UT Arlington Office of Research Administration appreciates your continuing commitment to the protection of human research subjects. Should you have questions or require further assistance, please contact Robin Dickey by calling (817) 272-9329.

Sincerely,

Patricia Turpin, Ph.D., RN, NEA, BC  
Clinical Associate Professor  
UT Arlington IRB Chair

BeAMaverick™

APPENDIX D  
NSSI and SOCIAL INFLUENCE SURVEY

## Non-SSI

### 1. Introduction

This survey is intended to collect information on non-suicidal self-injury and its relationship with social influence such as peer acceptance or media exposure. If you have already participated in this survey or are aged 17 or under please exit this survey now.

This survey contains questions about your experience regarding non-suicidal self-injury. The survey data will be kept anonymous and confidential, and you will not be asked to identify yourself in any way. If you choose to participate in this survey, please proceed. If you do not choose to participate, you may close this window to exit the survey at any time.

This survey is part of a study being conducted by Terin Driggers at the University of Texas at Arlington in partial fulfillment of thesis requirements. IRB approval was granted March 3, 2010. If you have any questions or concerns regarding your participation in this survey please contact Terin Driggers (terin.driggers@mavs.uta.edu). If you would like to receive a copy of the results of this study, please send an email to Terin Driggers at the above address.

Every attempt will be made to see that your study results are kept confidential. A copy of the records from this study will be stored in Dr. Regina T.P. Aguirre's Office (School of Social Work; SOCW A318) for at least (3) years after the end of this research. The results of this study may be published and/or presented at meetings without naming you as a subject. Although your rights and privacy will be maintained, the Secretary of the Department of Health and Human Services, the UTA IRB, and personnel particular to this research have access to the study records. Your results will be kept completely confidential according to the current legal requirements. They will not be revealed unless required by law, or as noted above.

This survey is expected to take 20-30 minutes. If at any time you experience discomfort you may exit the survey. If you would like to talk to someone or are in crisis please call 1-800-273-TALK.

By clicking "Next" you confirm that you have read or had this document read to you and that you freely and voluntarily choose to be in this research project. Otherwise, please click "Exit This Survey" at the top of the page.

## Non-SSI

2.

**1. Do you or have you ever self injured without the intent of suicide?**

Yes

No

If you would like to talk to someone because you feel distressed or are in crisis please call 1-800-273-TALK.

If you would like to talk with a professional about self-injury please contact S.A.F.E. Alternatives (Self-Abuse Finally Ends) at:

<http://www.selfinjury.com/>

1-800-DONT CUT (hotline)

## Non-SSI

### 3. Adapted from OSI Clinical Survey-Basic Description

The following questions have been added to gather information about your experience with non-suicidal self-injury.

For purposes of this survey, non-suicidal self-injury (NSSI) is defined as "the deliberate destruction of body tissue without suicidal intent and for purposes not socially sanctioned."

Some examples of non-suicidal self-injury are:

Cutting, needle-sticking, and burning

NSSI does NOT include:

Eating disorders, substance abuse, tattoos, or body piercings

#### 2. What areas of your body did/do you injure? (Please mark all that apply.)

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Scalp                  | <input type="checkbox"/> Chest         | <input type="checkbox"/> Upper Arm/Elbow |
| <input type="checkbox"/> Eye(s)                 | <input type="checkbox"/> Breast(s)     | <input type="checkbox"/> Lower Arm/Wrist |
| <input type="checkbox"/> Ear(s)                 | <input type="checkbox"/> Back          | <input type="checkbox"/> Hand/Fingers    |
| <input type="checkbox"/> Face                   | <input type="checkbox"/> Shoulder(s)   | <input type="checkbox"/> Thigh/Knee      |
| <input type="checkbox"/> Nose                   | <input type="checkbox"/> Abdomen       | <input type="checkbox"/> Lower Leg/Ankle |
| <input type="checkbox"/> Lips                   | <input type="checkbox"/> Hips/Buttocks | <input type="checkbox"/> Foot/Toes       |
| <input type="checkbox"/> Inside Mouth           | <input type="checkbox"/> Genitals      |  |
| <input type="checkbox"/> Neck/Throat            | <input type="checkbox"/> Rectum        |  |
| <input type="checkbox"/> Other (please specify) |  |  |

If you would like to talk to someone because you feel distressed or are in crisis please call 1-800-273-TALK.

If you would like to talk with a professional about self-injury please contact S.A.F.E. Alternatives (Self-Abuse Finally Ends) at:

<http://www.selfinjury.com/>  
1-800-DONT CUT (hotline)



## Non-SSI

4.

### 3. How did/do you self-injure (without meaning to kill yourself)? (Please mark all that apply.)

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Cutting                        | <input type="checkbox"/> Hair pulling                            | <input type="checkbox"/> Trying to break bones                       |
| <input type="checkbox"/> Scratching                     | <input type="checkbox"/> Severe nail biting and/or nail injuries | <input type="checkbox"/> Headbanging                                 |
| <input type="checkbox"/> Interfering with wound healing | <input type="checkbox"/> Piercing skin with sharp objects        | <input type="checkbox"/> Taking too much medication                  |
| <input type="checkbox"/> Burning                        | <input type="checkbox"/> Non-cosmetic piercing of body parts     | <input type="checkbox"/> Taking too little medication                |
| <input type="checkbox"/> Biting                         | <input type="checkbox"/> Excessive use of street drugs           | <input type="checkbox"/> Eating or drinking things that are not food |
| <input type="checkbox"/> Hitting                        | <input type="checkbox"/> Excessive use of alcohol                |  |
| <input type="checkbox"/> Other (please specify)         |  |  |

### 4. Which method did/do you use the most frequently?

- |  |   |   |
|--|---|---|
| <input type="radio"/> Cutting                        | <input type="radio"/> Hair pulling                            | <input type="radio"/> Trying to break bones                       |
| <input type="radio"/> Scratching                     | <input type="radio"/> Severe nail biting and/or nail injuries | <input type="radio"/> Headbanging                                 |
| <input type="radio"/> Interfering with wound healing | <input type="radio"/> Piercing skin with sharp objects        | <input type="radio"/> Taking too much medication                  |
| <input type="radio"/> Burning                        | <input type="radio"/> Non-cosmetic piercing of body parts     | <input type="radio"/> Taking too little medication                |
| <input type="radio"/> Biting                         | <input type="radio"/> Excessive use of street drugs           | <input type="radio"/> Eating or drinking things that are not food |
| <input type="radio"/> Hitting                        | <input type="radio"/> Excessive use of alcohol                |   |
| <input type="radio"/> Other (please specify)         |   |   |

If you would like to talk to someone because you feel distressed or are in crisis please call 1-800-273-TALK.

If you would like to talk with a professional about self-injury please contact S.A.F.E. Alternatives (Self-Abuse Finally Ends) at:

<http://www.selfinjury.com/>

1-800-DONT CUT (hotline)

**5. Reasons for Self-Injury**

**5. What do you think are your main reasons for engaging in non-suicidal self-injury? (Please mark all that apply)**

- To release tension
- To experience a "high"
- To stop feelings of emptiness or loneliness
- To get attention from others
- To punish yourself
- Other (please specify)
- To distract yourself from painful memories/thoughts
- To belong to a group
- To have a feeling of control
- To show others how strong you are
- To escape from a different kind of pain

If you would like to talk to someone because you feel distressed or are in crisis please call 1-800-273-TALK.

If you would like to talk with a professional about self-injury please contact S.A.F.E. Alternatives (Self-Abuse Finally Ends) at:

<http://www.selfinjury.com/>  
1-800-DONT CUT (hotline)

## Non-SSI

### 6. Self-Injurious Behaviors

**6. How old were you when you first hurt yourself in this way?**

**7. Where were you during this first episode of self-injury?**

- School                       Work                       Home                       Friend's house
- Other (please specify)

**8. How did you first think of the idea of injuring yourself? (Mark all that apply)**

- Knew someone else who had                       Heard about it from family
- Read about it                       Heard about it from peers
- Saw it on television, or in a movie                       Discovered accidentally
- Internet                       It just came to me
- Heard about it on the radio                       Cannot remember
- I learned about it in health or another class
- Other (please specify)

**9. Did you tell anyone after the first time you self-injured?**

- Yes
- No

If you would like to talk to someone because you feel distressed or are in crisis please call 1-800-273-TALK.

If you would like to talk with a professional about self-injury please contact S.A.F.E. Alternatives (Self-Abuse Finally Ends) at:

<http://www.selfinjury.com/>

1-800-DONT CUT (hotline)

## Non-SSI

### 7. Self-Injurious Behavior

#### 10. If yes, who? (Mark all that apply)

- Family member
- Friend
- Romantic partner
- Medical doctor
- Counselor or psychologist
- Teacher
- Other (please specify)

If you would like to talk to someone because you feel distressed or are in crisis please call 1-800-273-TALK.

If you would like to talk with a professional about self-injury please contact S.A.F.E. Alternatives (Self-Abuse Finally Ends) at:

<http://www.selfinjury.com/>  
1-800-DONT CUT (hotline)

**8. Self-Injurious Behavior**

**11. How did you feel BEFORE the first time you self-injured? (Mark all that apply)**

- |   |                                      |                                    |
|---|--------------------------------------|------------------------------------|
| <input type="checkbox"/> Calm                   | <input type="checkbox"/> Nervous     | <input type="checkbox"/> Ashamed   |
| <input type="checkbox"/> Tense                  | <input type="checkbox"/> Overwhelmed | <input type="checkbox"/> Energetic |
| <input type="checkbox"/> Angry                  | <input type="checkbox"/> Anxious     | <input type="checkbox"/> Confident |
| <input type="checkbox"/> Sad                    | <input type="checkbox"/> Excited     | <input type="checkbox"/> Guilty    |
| <input type="checkbox"/> Happy                  | <input type="checkbox"/> Scared      |                                    |
| <input type="checkbox"/> Other (please specify) |                                      |                                    |

**12. How did you feel AFTER the first time you self-injured? (Mark all that apply)**

- |   |                                      |                                    |
|---|--------------------------------------|------------------------------------|
| <input type="checkbox"/> Calm                   | <input type="checkbox"/> Nervous     | <input type="checkbox"/> Ashamed   |
| <input type="checkbox"/> Tense                  | <input type="checkbox"/> Overwhelmed | <input type="checkbox"/> Energetic |
| <input type="checkbox"/> Angry                  | <input type="checkbox"/> Anxious     | <input type="checkbox"/> Confident |
| <input type="checkbox"/> Sad                    | <input type="checkbox"/> Excited     | <input type="checkbox"/> Guilty    |
| <input type="checkbox"/> Happy                  | <input type="checkbox"/> Scared      |                                    |
| <input type="checkbox"/> Other (please specify) |                                      |                                    |

If you would like to talk to someone because you feel distressed or are in crisis please call 1-800-273-TALK.

If you would like to talk with a professional about self-injury please contact S.A.F.E. Alternatives (Self-Abuse Finally Ends) at:

<http://www.selfinjury.com/>  
1-800-DONT CUT (hotline)

## Non-SSI

### 9. Self-Injurious Behavior

**13. After the first episode of self-injury, how long was it before the second episode?**

- I only self-injured that one time
- Less than a day
- Between 1 day and 1 week
- Between 1 week and 1 month
- Approximately 1 to 6 months later
- More than 6 months later
- More than 1 year later

**14. Does anyone know that you have engaged in self-injury?**

- Yes
- No

If you would like to talk to someone because you feel distressed or are in crisis please call 1-800-273-TALK.

If you would like to talk with a professional about self-injury please contact S.A.F.E. Alternatives (Self-Abuse Finally Ends) at:  
<http://www.selfinjury.com/>  
1-800-DONT CUT (hotline)

## Non-SSI

### 10. Self-Injurious Behavior

#### 15. If yes, who? (Mark all that apply)

- Family member
- Friend
- Romantic partner
- Medical doctor
- Counselor or psychologist
- Teacher
- Other (please specify)

If you would like to talk to someone because you feel distressed or are in crisis please call 1-800-273-TALK.

If you would like to talk with a professional about self-injury please contact S.A.F.E. Alternatives (Self-Abuse Finally Ends) at:

<http://www.selfinjury.com/>  
1-800-DONT CUT (hotline)

## Non-SSI

### 11. Self-Injurious Behavior: Section II

**16. To your knowledge, how many of your friends self-injure? (such as 0, 1, 5, etc.)**

**17. Did you know about a friend's self-injury before the first time you hurt yourself?**

- Yes  
 No

**18. How often do you discuss self-injury with your friends?**

- Never  
 Sometimes  
 Often

**19. How often do you self-injure with your friends?**

- Never  
 Sometimes  
 Often

If you would like to talk to someone because you feel distressed or are in crisis please call 1-800-273-TALK.

If you would like to talk with a professional about self-injury please contact S.A.F.E. Alternatives (Self-Abuse Finally Ends) at:

<http://www.selfinjury.com/>  
1-800-DONT CUT (hotline)



**12. Self-Injurious Behavior: Section II**

**20. Where have you self-injured with your friends? (Mark all that apply)**

- School
- Work
- Your home
- Other (please specify)
- Someone else's home
- Car

**21. Have you ever suggested the idea of self-injuring to someone else?**

- Yes
- No

**22. Have you ever talked on the internet about self-injuring (e.g. chat rooms, blogs, etc.)?**

- Yes
- No

If you would like to talk to someone because you feel distressed or are in crisis please call 1-800-273-TALK.

If you would like to talk with a professional about self-injury please contact S.A.F.E. Alternatives (Self-Abuse Finally Ends) at:

<http://www.selfinjury.com/>  
1-800-DONT CUT (hotline)

**13. Self-Injurious Behavior: Section II**

**23. If so, how often do you talk with others on the internet about self-injury?**

- Everyday
- Few times per week
- Few times per month
- Few times per year
- Other (please specify)

If you would like to talk to someone because you feel distressed or are in crisis please call 1-800-273-TALK.

If you would like to talk with a professional about self-injury please contact S.A.F.E. Alternatives (Self-Abuse Finally Ends) at:

<http://www.selfinjury.com/>  
1-800-DONT CUT (hotline)

## Non-SSI

### 14. Self-Injurious Behavior: Section II

#### 24. Do you want to stop self-injuring?

- Yes  No  I have already stopped

#### 25. Have your friends played a role in your continuing to self-injure? That is, have you continued to self-injure because your friends do it too?

- Yes  No

#### 26. If you have stopped self-injuring, how or why did you stop?

- I have not stopped (not applicable)  Journaling and other writing took the place of self-injury
- I did it once and did not want to do it again  Drinking or taking drugs took the place of self-injury
- No longer interested in self-injuring/grew out of it  Medication (antidepressants, anti-anxiety, etc.)
- Because of family, friends, or loved ones were upset by it  Counseling/Therapy
- Exercise and sports took the place of self-injury
- Other (please specify)

If you would like to talk to someone because you feel distressed or are in crisis please call 1-800-273-TALK.

If you would like to talk with a professional about self-injury please contact S.A.F.E. Alternatives (Self-Abuse Finally Ends) at:

<http://www.selfinjury.com/>  
1-800-DONT CUT (hotline)

**15. Self-Injurious Behavior: Section III**

**27. Is there anything else you would like to share with us regarding your non-suicidal self-injury behavior?**

If you would like to talk to someone because you feel distressed or are in crisis please call 1-800-273-TALK.

If you would like to talk with a professional about self-injury please contact S.A.F.E. Alternatives (Self-Abuse Finally Ends) at:

<http://www.selfinjury.com/>  
1-800-DONT CUT (hotline)

**16. Demographics**

The following questions have been added in order to collect demographic information.

**28. What is your sex?**

- Male
- Female
- Intersex

**29. What is your age?**

Age

**30. What is your race?**

- White
- Black
- Asian
- Native Hawaiian or Pacific Islander
- Native American
- Multi-racial

**31. Are you of Hispanic origin?**

- Yes
- No

**17. Demographics**

**32. What is your current level of education?**

- Undergraduate Freshmen
- Undergraduate Sophomore
- Undergraduate Junior
- Undergraduate Senior
- Master's
- PhD, MD, DO, JD, or other terminal degree
- Non-Degree Seeking Student Undergraduate
- Non-Degree Seeking Student Graduate

**33. Please select which of the following applies to your higher education institution.**

- Public
- Private (not faith-based)
- Private-faith-based

**34. What is your school's student enrollment? (Approximately)**

- 2,000 and under
- 2,001 - 10,000
- 10,001 - 25,000
- 25,001 - 40,000
- 40,000 and above
- Uncertain

## Non-SSI

**35. Please check any organizations you have contact with more than once a month.**

Church/Synagogue/Temple

Fraternities/Sororities

Academic

None

Other (please specify)

**36. Which of the following best describes your current residence?**

On campus

Off campus independently

Off campus with room mates

Off campus with family

## Non-SSI

### 18. The End

Thank you for taking the time to complete this survey!!

If you know others who engage in non-suicidal self-injury and who may be interested in participating in this study, please feel free to direct them to this anonymous survey. It should be noted that in no way will your responses be connected to their responses.

If you engage in non-suicidal self-injury and are interested in being contacted in the future for additional research purposes relating to non-suicidal self-injury [Click here](#) to provide your contact information. If you are not interested you may read on and then exit this survey.

If you believe you may have experienced some discomfort while responding to this survey and would like to talk to someone or are in crisis please call 1-800-273-TALK.

If you would like to talk with a professional in order to get help with your own self-injury or to get help for someone you know who self-injures, please contact S.A.F.E. Alternatives (Self-Abuse Finally Ends) at:

<http://www.selfinjury.com/>

1-800-DONT CUT (hotline)



## Non-SSI

### 3. Non-Self-Injurers

The following questions have been added to gather information about your experience with non-suicidal self-injury.

For purposes of this survey, non-suicidal self-injury (NSSI) is defined as "the deliberate destruction of body tissue without suicidal intent and for purposes not socially sanctioned."

Some examples of non-suicidal self-injury are:

Cutting, needle-sticking, and burning

NSSI does NOT include:

Eating disorders, substance abuse, tattoos, or body piercings

#### **2. Have you ever thought about deliberately injuring yourself without the intent of suicide?**

Yes

No

## Non-SSI

### 4. Non-Self-Injurers

#### 3. What motivates you to not self-injure? (Please mark all that apply)

- Family and friends
- Exercise and sports
- Journaling and other writing
- Drinking or taking drugs
- Medication (antidepressants, anti-anxiety, etc.)
- Counseling / Therapy
- Desire to avoid pain
- Desire to avoid infection
- Other (please specify)

## Non-SSI

### 5. Non-Self-Injurers

**4. Have you ever known anyone who self-injures without the intent of suicide?**

- Yes
- No

## Non-SSI

### 6. Reasons for NSSI

**5. Of the people you know who self-injure, what do you think are their main reasons for engaging in non-suicidal self-injury? (Please mark all that apply)**

- |  |   |
|--|---|
| <input type="checkbox"/> To release tension                          | <input type="checkbox"/> To distract himself/herself from painful memories/thoughts |
| <input type="checkbox"/> To experience a "high"                      | <input type="checkbox"/> To belong to a group                                       |
| <input type="checkbox"/> To stop feelings of emptiness or loneliness | <input type="checkbox"/> To have a feeling of control                               |
| <input type="checkbox"/> To get attention from others                | <input type="checkbox"/> To show others how strong she/he is                        |
| <input type="checkbox"/> To punish himself/herself                   | <input type="checkbox"/> To escape from a different kind of pain                    |
| <input type="checkbox"/> Other (please specify)                      |   |

## Non-SSI

### 7. Non-Self-Injurers

#### 6. Where did you first learn of self-injury (without the intent of suicide)?

- Television/Movies
- Peers
- Internet
- A class
- Radio
- Family member
- Book
- Other (please specify)

#### 7. Is there anything else you would like to share with us regarding non-suicidal self-injury?

## Non-SSI

### 8. Demographics

The following questions have been added in order to collect demographic information.

#### 8. What is your sex?

- Male
- Female
- Intersex

#### 9. What is your age?

Age

#### 10. What is your race?

- White
- Black
- Asian
- Native Hawaiian or Pacific Islander
- Native American
- Multi-racial

#### 11. Are you of Hispanic origin?

- Yes
- No

**9. Demographics**

**12. What is your current level of education?**

- Undergraduate Freshmen
- Undergraduate Sophomore
- Undergraduate Junior
- Undergraduate Senior
- Master's
- PhD, MD, DO, JD, or other terminal degree
- Non-Degree Seeking Student Undergraduate
- Non-Degree Seeking Student Graduate

**13. Please select which of the following applies to your higher education institution.**

- Public
- Private (not faith-based)
- Private-faith-based

**14. What is your school's student enrollment? (Approximately)**

- 2,000 and under
- 2,001 - 10,000
- 10,001 - 25,000
- 25,001 - 40,000
- 40,000 and above
- Uncertain

## Non-SSI

**15. Please check any organizations you have contact with more than once a month.**

- Church/Synagogue/Temple
- Fraternities/Sororities
- Academic
- None
- Other (please specify)

**16. Which of the following best describes your current residence?**

- On campus
- Off campus independently
- Off campus with room mates
- Off campus with family



## Non-SSI

### 10. The End

Thank you for taking the time to complete this survey!!

If you know others who engage in non-suicidal self-injury and who may be interested in participating in this study, please feel free to direct them to this anonymous survey. It should be noted that in no way will your responses be connected to their responses.

If you engage in non-suicidal self-injury and are interested in being contacted in the future for additional research purposes relating to non-suicidal self-injury [Click here](#) to provide your contact information. If you are not interested you may read on and then exit this survey.

If you believe you may have experienced some discomfort while responding to this survey and would like to talk to someone or are in crisis please call 1-800-273-TALK.

If you would like to talk with a professional in order to get help with your own self-injury or to get help for someone you know who self-injures, please contact S.A.F.E. Alternatives (Self-Abuse Finally Ends) at:

<http://www.selfinjury.com/>

1-800-DONT CUT (hotline)

APPENDIX E  
LETTER TO GROUP FACILITATOR

Dear Facebook administrators,

I am a Master's student at the University of Texas at Arlington working toward my degree in Social Work. Part of my graduation requirements is completion of a thesis which takes the form of an online survey. The purpose of this online survey is to assess the relationship between social influences such as peer acceptance or media exposure and the initiation and/or continued engagement of non-suicidal self-injury behaviors.

I have created an online survey which will allow me to collect data. The survey is completely anonymous and no names or identifying information will be recorded unless the respondent indicates he/she would like to be contacted for future research efforts. The survey is voluntary and if a participant chooses to participate he/she will need to click on a link to take them to the survey website.

It should be noted that the results of this study may be presented at conferences and published in scholarly journals in the future to improve treatment methods for non-suicidal self-injury.

As you may know, non-suicidal self-injury is an unhealthy coping mechanism which is becoming progressively more prevalent among college and university students. It is my hope that you will agree to send the link to this survey to your college/university group members so that I may obtain as many respondents as possible to ensure a strong study. How you choose to distribute the link to the survey may be done at your discretion either in the form of an email or a "news" posting to the webpage. If you agree to participate I will e-mail you the link to the survey.

Please let me know at your earliest convenience if you are willing to allow me to survey your members. Please do not hesitate to contact me at [terin.driggers@mavs.uta.edu](mailto:terin.driggers@mavs.uta.edu) or my cell phone 815-993-8881.

Thank you for your time,  
Terin Driggers

APPENDIX F  
FIGURES

### What areas of your body did/do you injure?

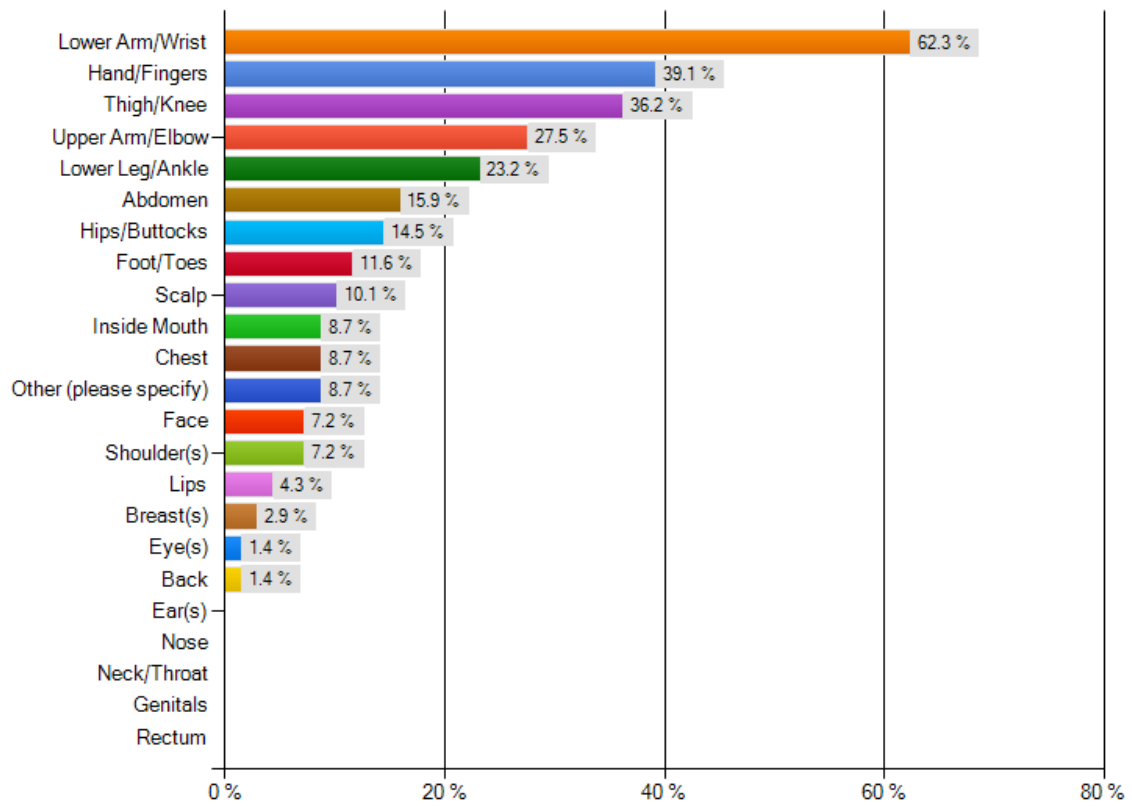


Figure F.1 Areas of the body injured

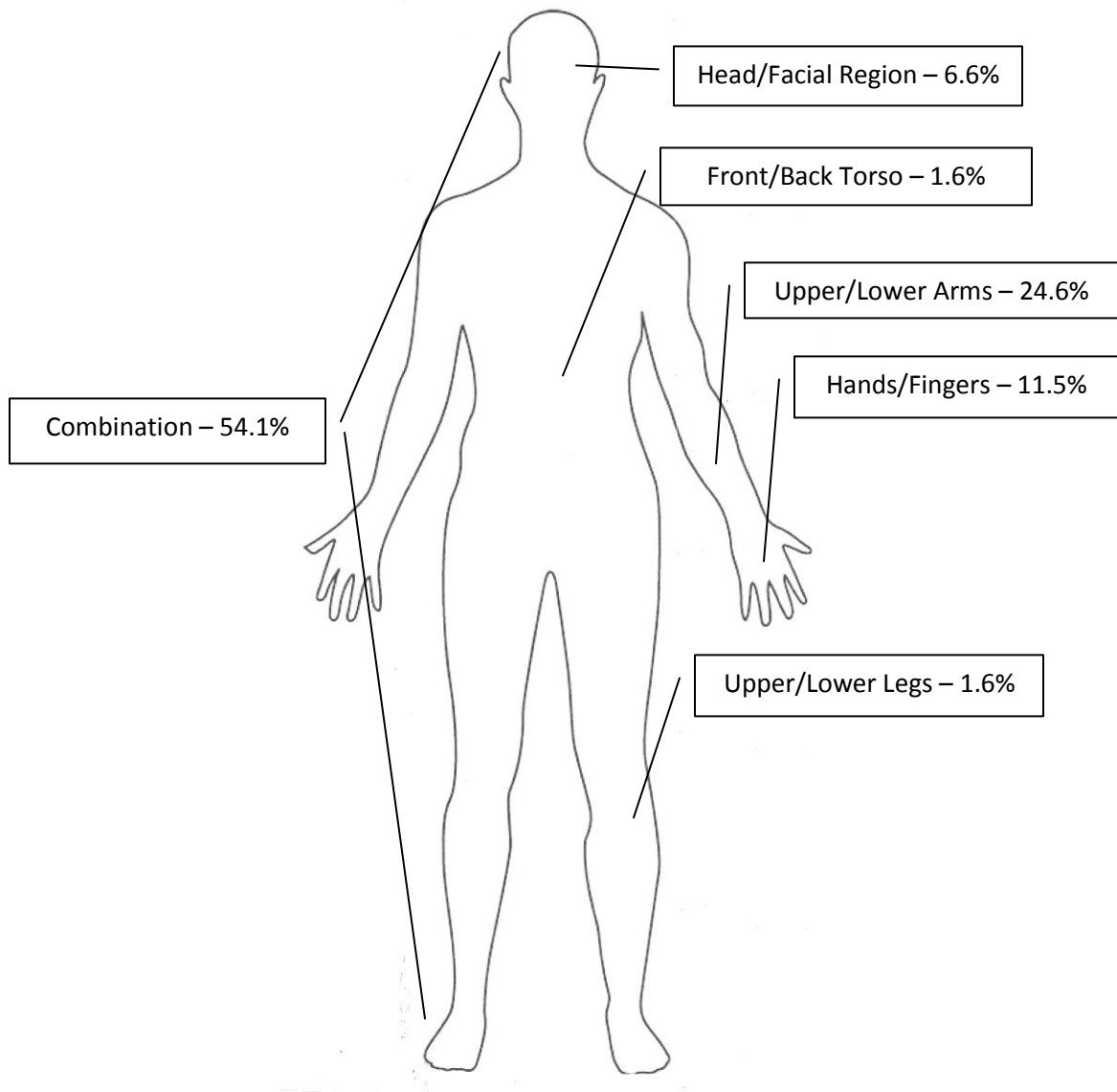


Figure F.2 Areas Injured

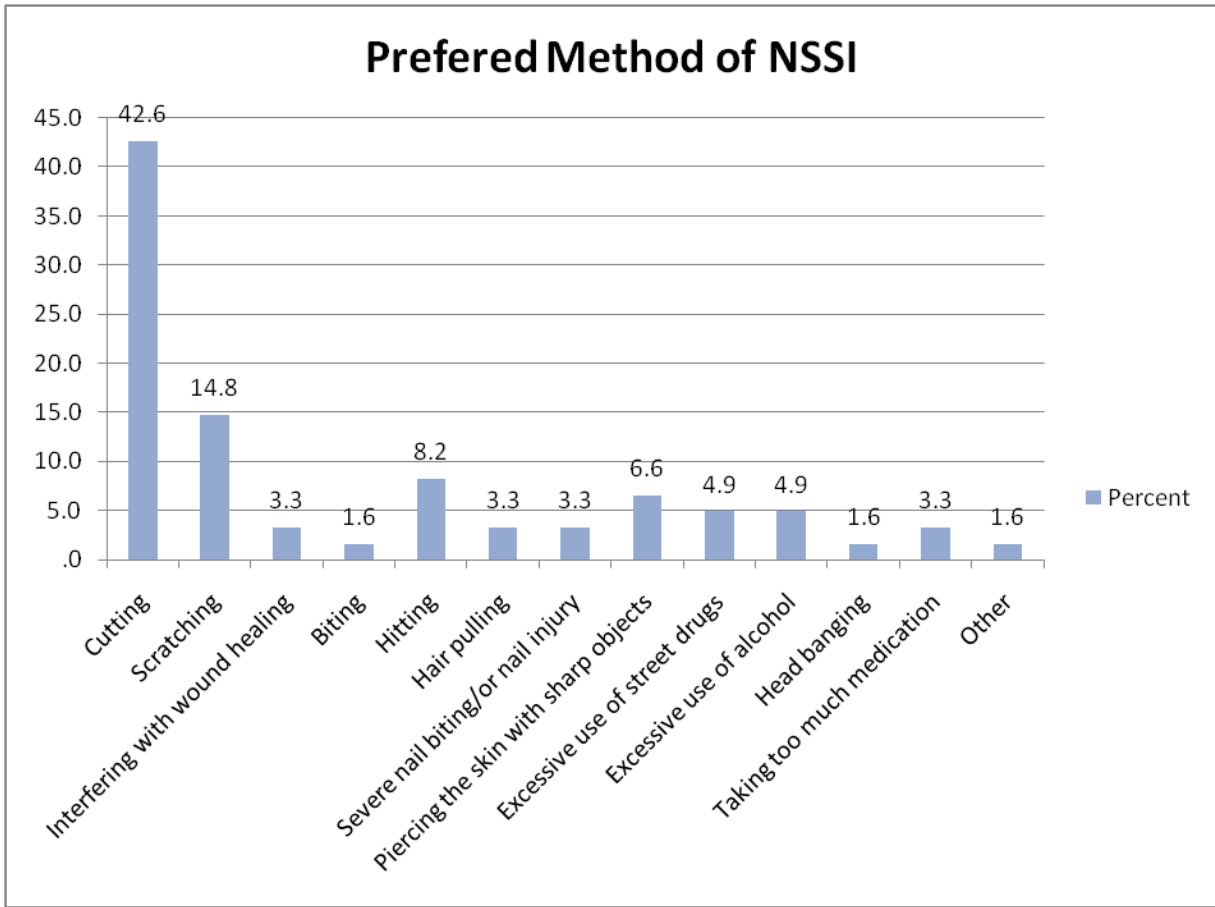


Figure F.3 Most Utilized Method of NSSI

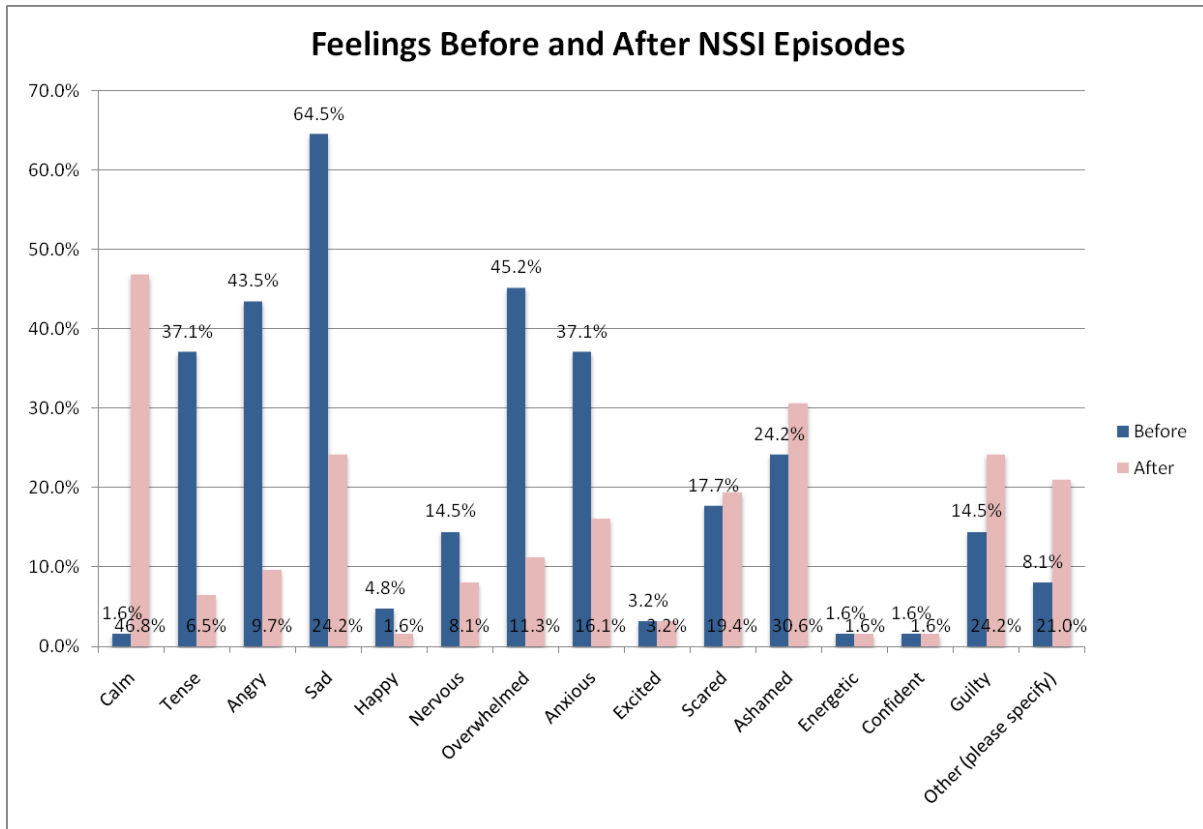


Figure F.4 Feelings Before and After First NSSI Episode



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## BIOGRAPHICAL INFORMATION

Terin Driggers graduated from Benedictine University with a Bachelor's degree in sociology and social work in 2008. Since her acceptance to the University of Texas at Arlington she has participated in numerous clinical activities and organizations. The master's degree will be conferred on August 15, 2010. She hopes to continue her education by attaining her doctorate and plans to continue research on NSSI.