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Non-Suicidal Self-Injury Characteristics and How Social Support Plays a Role

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Abstract

NSSI affects many young adults and is associated with suicidal ideation, as well as numerous mental health disorders and other psychological variables. There were a total of 59 participants that participated in this study from an undergraduate college sample who endorsed self-injuring. An online platform for research was used to recruit participants and provide them with the online survey link. Self-injuring more than one bodily location may result in feeling more stigma than individuals who self-injure one bodily location. Self-stigma and self-injuring multiple bodily locations both significantly predicted suicidal ideation, but gender and social support did not predict suicidal ideation. Women significantly endorsed self-injuring their torso more compared to men, otherwise, no other gender differences in bodily location of self-injury were found. In conclusion, clinicians should consider addressing self-stigma and number of bodily locations an individual self-injures when doing suicide risk assessments.

Table of Contents

Introduction……...5

Clinical Importance……...6

Bodily Location and Gender Differences...……..…...12

Social Support and NSSI……..13

Effects of NSSI Websites…….....17

Stigma with NSSI.…….…...18

Current Study……....21

Research Questions……...22

Methods…….……....22

Results……...25

Discussion……..……...28

Limitations…….……...…..…...32

Future Directions……....……...32

Implications……...……33

References…….....34

Tables……....40

Non-Suicidal Self-Injury Characteristics and How Social Support Plays a Role

Non-suicidal self-injury (NSSI) affects as many as 7.0% to 35.0% of young adults in their lifetime. A study that assessed self-injury in the past 4 weeks in a college sample reported an incidence of 7.0% (Gollust, Eisenberg, & Golberstein, 2008). In a college sample between the ages of 18 and 24, the lifetime prevalence rate of NSSI was 17.0% (Whitlock, Eckenrode, & Silverman, 2006). A college sample ranging from 18 to 37 years old reported 20% of students having self-injured at some point in their lives (Polk & Liss, 2007). Another college sample ranging in age from 18 to 64 with a mean age of 23.19 years old reported 35% with a history of self-injury, 15% reporting more than 10 incidents of self-harm in the past, and 9% reporting more than 100 incidents in the past (Gratz, 2001).

Although NSSI is defined as purposefully hurting oneself without the conscious intent to die (Nock, 2009a), there are high rates of suicide attempts for those individuals who engage in NSSI (Nock, Joiner, Gordon, Lloyd-Richardson, & Prinstein, 2006). However, NSSI and suicide attempts should not be confused. Individuals who engage in NSSI do not do it with the intent to die, which is unlike suicide attempts (Jacobson & Gould, 2007). Furthermore, thoughts of NSSI rarely were accompanied by suicidal thoughts, which highlight the distinction between these two behaviors (Nock, Prinstein, & Sterba, 2010). NSSI and suicide attempts have different functions as well. Research has identified four main functions of NSSI, which include intrapersonal negative reinforcement (NSSI decreases or distracts from aversive thoughts or feelings), intrapersonal positive reinforcement (NSSI generates desired feelings or stimulation),

interpersonal positive reinforcement (NSSI facilitates help seeking), and interpersonal negative reinforcement (NSSI facilitates escape from undesired social situations; Nock, 2009b). Individuals at the most risk for suicide feel like they are a burden to loved ones, feel isolated from others, and have the learned ability to hurt themselves (Joiner, 2005). Therefore, individuals may attempt suicide "to make others better off" (Brown, Comtois, & Linehan, 2002). NSSI is also more common than suicide attempts and is engaged in equally by both men and women, whereas dying by suicide is more common in adult men (Muehlenkamp, 2005; Walsh, 2005). A higher frequency of past year engagement in NSSI predicted higher acquired capability (lower pain sensitivity and fear of death) for suicide over time (Willoughby, Heffer, & Hamza, 2015). Using multiple NSSI methods may indicate that NSSI is not achieving emotion regulation for an individual, and therefore, creates the feelings of hopelessness and helplessness, which may lead him or her to contemplate suicide as an option (Wester, Ivers, Villalba, Trepal, & Henson, 2014).

Clinical Importance

Research regarding NSSI is necessary as self-injury clearly has an impact on overall functioning. Klonsky (2011) assessed the nature of NSSI used a random-digit dialing procedure to contact people across 48 states excluding Alaska and Hawaii. All 48 states were represented in the sample with 35.1% from the Southern U.S., 25.1% from the Midwest, 22.3% from the Northeast, and 17.5% from the West. The study included 439 participants between the ages of 19 and 92, with a mean age of 55.5. Participants were 61% women, and 86.1% White, 6.4% African American, 3.0% Hispanic/Latino, 1.4%

Asian, and 1.4% Native American. After consent, individuals were asked 40 questions from a structured interview in order to assess NSSI characteristics. Young adults endorsing NSSI were more likely to report having received mental health treatment than those who did not endorse NSSI. Those reporting NSSI were also more likely to report having received treatment for alcohol or drug problems than those who did not endorse NSSI. For those who self-injured, 20% reported having engaged in NSSI while using alcohol or drugs, and 36% reported having engaged in NSSI while feeling suicidal. NSSI is associated with suicidal ideation, therefore, it is important to review this relationship in more detail.

Whitlock et al. (2013) assessed the relationship between suicide and NSSI. At five different U.S. colleges, 1,466 students participated in a longitudinal study. The sample had an average age of 20.3 years, was 59.9% women, and 69.3% White, 11.1% Asian, 4.8% African American, and 3.8% Hispanic. This study used the Survey of Student Wellbeing annually as well as the Non-Suicidal Self-Injury Assessment Tool to assess self-injurious behaviors through an Internet-based study. Results concluded NSSI might serve as a gateway for concurrent or later suicidal thoughts and behaviors. Furthermore, this study found that NSSI precedes or co-occurs with 61.6% of cases of suicide and that NSSI increases the risk for later suicide independent of shared risk factors. It is possible that affective lability and intensity moderate the relationship between self-injury and suicide attempts. Research has found that individuals with high levels of self-injury and low levels of affective vulnerabilities were risk factors for suicidal behavior (Anestis, Coffey, Schumacher, & Tull, 2011). Because NSSI and suicidal ideation are related,

psychiatric disorders associated with NSSI and suicidal ideation need to be discussed.

Researchers have found that NSSI is associated with borderline personality disorder (BPD) with 63% of individuals with BPD reporting self-injury (Soloff, Lis, Kelly, Cornelius, & Ulrich, 1994). Brickman, Ammerman, Look, Berman, and McCloskey (2014) assessed 724 participants (281 men, 443 women) aged 17-57 with a mean age of 21.23 looked at the relationship between NSSI and borderline personality disorder symptoms through an online study. The sample from a large urban university was predominately White (59.3%), African American (14.8%), and Asian (12.6%). The study used Forms and Function of Self-Injury Scale to assess self-injury, and the McLean Screening Instrument for Borderline Personality Disorder to assess BPD symptoms. Results showed that past suicidality, impulsivity, chronic emptiness, and identity disturbance were each positively associated with lifetime history of NSSI, and unstable relationships were negatively associated with lifetime history of NSSI. This was the first study to examine BPD factors and individual symptoms in relation to NSSI in a college population. Although BPD and NSSI have a strong relationship, there are other psychiatric symptoms associated with NSSI.

Taliaferro and Muehlenkamp (2015) assessed a university sample of undergraduate students between the ages of 18 and 23. The sample included 16,044 students with 35.7% men and identified as predominately White (62.7%), African American (7.0%), Asian/Pacific Islander (12.2%), and Hispanic (8.6%). Self-harm groups were created based on NSSI, suicidal ideation, and suicide attempt. Variables included hopelessness, depressive symptoms, anxiety, non-heterosexual orientation, involved in a physical

assault or physical abuse, victim of sexual abuse and emotional abuse, diagnosed with a mental health disorder, tobacco use, marijuana use, binge drinking, and other illegal drug use. When compared to students with no history of self-injury, students who self-injured were more likely to experience difficulties with internal distress, negative perceptions, and engage in disordered eating habits. Factors that distinguished the NSSI group and suicide attempt group from the NSSI-only group were current depressive symptoms and diagnosis of an internalizing disorder. The implications for the research include recognizing, assessing, and addressing NSSI in both men and women. Furthermore, it is important to focus prevention and intervention on first-year students, individuals in a minority group, and students experiencing emotional distress and/or mental health disorders (Taliaferro & Muehlenkamp, 2015).

Further information regarding mental health disorders and symptomology are needed to demonstrate the scope of the problem associated with NSSI. Anxiety, depression, eating disorders, and general overall psychiatric distress have also been found to significantly predict NSSI in adults (Gollust et al., 2008; Moller, Tait, & Byrne, 2013; Taliaferro & Muehlenkamp, 2015). Gollust et al. (2008) used a web-based survey that was conducted at a public university in the Midwest with 2,843 students responding to the survey. The study population included 60.6% White, 6.3% African American, 19.9% Asian American, 3.5% Hispanic, and 5.4% multiracial, with 48% female, 11.8% international students, and 33.9% graduate students. Participants were asked, “In the past 4 weeks, have you ever done any of the following?” to assess self-injury. Furthermore, the Patient Health Questionnaire-9 was used to assess criteria for a major depressive

episode, the PHQ anxiety module was used to assess panic disorder and generalized anxiety disorder, the SCOFF for potential eating disorders, a question regarding suicide, questions about substance use (cigarettes, marijuana, and binge drinking), and questions about participants' perceived need for and use of mental health services over the past year. Of those who self-injured, 32.5% screened positive for a probable depressive disorder, 7.5% for a panic disorder, 10.6% for a generalized anxiety disorder, and 25.9% for a probable eating disorder. These are all significantly higher estimates of mental disorders than for those who did not report self-injury. For students who self-injured, 11% reported suicidal thoughts in the past week, whereas, for students who did not self-injure, 1.6% reported suicidal thoughts in the past week. Overall, students who self-injured were unlikely to seek help, yet they were at risk for experiencing significant anxiety, distress, and suicidal thoughts.

Anxiety, distress, and suicidal thoughts are not the only risk factors. In Australia, Moller, Tait, and Byrne (2013) examined randomly selected participants by sending a letter that invited them to participate followed by a phone call. A sequential-cohort design with follow-up every four years was used. The participants were aged 20-24 and 40-44 at baseline. In the younger cohort, 53.5% were women, and in the older cohort, 52.5% were women. Participants who consented completed a survey using a personal computer. The study included the Goldberg Depression and Anxiety Scales, Childhood Adversity Scale, childhood sexual abuse, Financial Stress Indicators, self-injury, alcohol consumption using the Alcohol Use Disorders Identification Test, and smoking status. Results showed that individual predictors of self-injury included adverse life events, sexual abuse by

parent, financial strain, and psychological distress. Adverse life events can mean a variety of different factors, so it is important to discuss what life events in particular may be risk factors for NSSI.

Individuals exposed to child maltreatment, particularly sexual abuse and physical neglect (Gladstone et al., 2004; Glassman, Weierich, Hooley, Deliberto, & Nock, 2007), are risk factors for NSSI. In Australia, Gladstone et al. (2004) examined 126 women between the ages of 17 and 68 with a mean age of 37.8 diagnosed with major depression from a Mood Disorders Unit. Participants were asked questions regarding stressful life events including questions about physical or sexual assault in the 12 months before their depression began. Participants also completed the Measure of Parental Style, the NEO-Personality Inventory, Temperament and Character Inventory, and a personality questionnaire. An interview was conducted, which included the Composite International Diagnostic Interview, three questions on global parental conflict, and three questions on global emotional abuse then interviewed participants. Results indicated that women with childhood sexual abuse were more likely to have attempted suicide and/or engaged in self-injury.

Sexual abuse is associated with NSSI, but what about other types of abuse and neglect? Glassman et al. (2007) conducted a study with 86 adolescents (69 girls) with a mean age of 17.03, which examined the relation between child maltreatment and NSSI. The participants were predominately European American (73.3%), African American (3.5%), Hispanic (7.0%), and Asian American (4.7%). The study evaluated childhood maltreatment with the Child Trauma Questionnaire, self-criticism with the Self-Rating

Scale, perceived criticism with the Perceived Criticism Scale, NSSI with the Self-Injurious Thoughts and Behaviors Interview, and depression using the major depressive disorder module of the Schedule for Affective Disorders and Schizophrenia for School Aged Children-Present and Lifetime Version. Results indicated that sexual abuse and physical neglect are associated with NSSI. Also, this is the first study to show a strong relation between childhood emotional abuse and NSSI.

Bodily Location and Gender Differences in NSSI

Sornberger, Heath, Toste, and McLouth (2012) examined gender differences in bodily location, prevalence, and method of NSSI in an adolescent population. From a sample of 7,126 high school students in the Kansas City metropolitan area, 1,744 self-injured with 66.7% girls and an age range of 11 to 19 years with a mean age of 14.78. Ethnicity was White (67.4%), African American (10.8%), Hispanic (6.3%), Multi-ethnic (5.7%), Asian/Pacific Islander (2.2%), and Native Alaskan/Native American (2.3%). Participants completed the Kauffman Teen Survey, which is a computer-adaptive online survey made up of 125 questions related to a broad range of teen health-related behaviors. Additionally, participants were asked whether or not they have physically hurt themselves on purpose, to endorse any of the ways that they have hurt themselves, and to select what parts of their body they have hurt. Adolescent girls were more likely than boys to injure their arms and legs, while boys were more likely to injure their chest, genitals, and face. Therefore, it is possible that boys are at a greater medical risk than girls. Boys tended to injure areas that were more visible and sensitive than girls.

Because the current study examines the relationship between gender and bodily location in a college sample, it is necessary to consider the past research with these variables in a college population. Whitlock, Eckenrode, and Silverman (2006) assessed a sample of 2,875 students from 2 Northeastern US universities participated in an Internet-based survey. Participants were between the ages of 18 and 24 with 56.3% women and 64.7% White, 3.7% African American, 4.3% Hispanic, and 17.1% Asian American. Lifetime frequency of NSSI, age of onset, current NSSI status, perceived severity, body parts affected, and formal help seeking were examined. Furthermore, sexual orientation, suicidal ideation, gestures, behaviors, and attempts, eating disorders, history of abuse, and mental distress were assessed. Men were 2.8 times more likely than women to punch an object with the intention of injuring themselves. Men were also 1.8 times more likely to injure their hands than women, whereas women were 2.3 times more likely to injure their wrists and 2.4 times more likely to injure their thighs than men.

Social Support and NSSI

Armiento, Hamza, and Willoughby (2014) assessed disclosure of NSSI among students from a Canadian university. The most common ethnic backgrounds other than Canadian were British (19%), Italian (16.8%), French (9.5%), and German (9%). The majority of participants were women (71%) with a mean age of 19.15 years. Individuals were invited to participate through emails, posters, and class announcements. Trained research personnel administered the survey. NSSI was assessed using the Inventory of Statements about Self-Injury, and disclosure of NSSI was measured by asking, “Have you told anyone that you self-harm?” Suicidal ideation, self-esteem, friendship quality,

and daily hassles were also assessed. Results revealed that 57% of self-injurers never told anyone about their self-injury. Furthermore, individuals who in engaged in NSSI were most likely to disclose to peers and romantic partners. There was a greater likelihood of NSSI disclosure when there was pain during NSSI, increased severity, interpersonal motivations, higher suicidal ideation, and higher friendship quality. Findings indicate when self-injurers may be most likely to disclose, therefore, clinicians may be able to discriminate from those who may disclose and those who may not disclose their self-injury. Higher friendship quality is not the only component associated with disclosure of NSSI.

In another Canadian study conducted by Turner, Cobb, Gratz, and Chapman (2016), interpersonal conflict and social support in NSSI were evaluated. There were a total of 60 participants with an average age of 23.25. Participants were mostly women (85%) and identified as White (53%), East Asian (18%), Southeast Asian (8%), Native Canadian (3%), Black or African Canadian (2%), and Hispanic (2%). Participants were recruited through online advertisements and completed an initial survey to determine whether they met the criteria to participate. Daily diaries were completed over 14 days that retrospectively reported NSSI urges, mood, conflict, and perceived social support in the morning, afternoon, and evening. Perceived social support increased when NSSI was revealed to others, however, this support was associated with an increase in NSSI urges and greater likelihood of engaging in NSSI the following day. Furthermore, daily acts of NSSI were typically not revealed to others. Results indicate that clinicians should not

assume clients will voluntarily reveal their NSSI, therefore, they should continue to monitor NSSI throughout treatment.

Perceived social support results in a greater likelihood of NSSI disclosure, but there are other social factors related to NSSI as well. Heath, Ross, Toste, Charlebois, and Nedecheva (2009) looked at social factors related to NSSI. There was a comparison group, which matched the non-NSSI group to the NSSI group on gender, age, and program of study. Participants in the NSSI group included 2 men and 21 women ranging from 18-24 years old. Participants in the non-NSSI group included 3 men and 20 women. Measures included How I Deal With Stress*,* Deliberate Self-Harm Inventory, Child and Adolescent Social Support Scale to assess retrospective support received during adolescence, and social influence questions to assess participants' NSSI and others' involvement in the behavior. After meeting the requirements for the study, participants completed an online survey. Results showed that 65% of self-injurers talked to their friends about self-injury, 58.8% indicated that a friend had been the first to engage in self-injury, and 17.4% had self-injured in front of their friends. Social support received from peers was less for the NSSI group than the non-NSSI group, but social support did not seem to be related to lifetime frequency of NSSI. The findings help illustrate the importance of emotional and social factors as they relate to NSSI.

Peers definitely have an impact on individuals who self-injure, so it is necessary to take a closer look at how peers would address a friend that self-injures. Bresin, Sand, and Gordon (2013) looked at NSSI from an observer's perspective on how individuals view and respond to NSSI. There were a total of 262 (149 women) undergraduate students.

The mean age was 19.47 years old and identified as White (90.84%), Asian or Pacific Islander (3.82%), African American (2.29%), and Hispanic (.76%). Researchers designed 12 vignettes written about a friend or family member engaging in NSSI. Participants reported why they thought the person was engaging in self-injury and then how they would respond to the individual self-injuring. Individuals have reported that they would maintain the safety of a person currently self-injuring and provide support if they were told about it later. The implication is that peers may be able to be coached to respond differently depending on the type of self-injury because peers were able to tell the difference between self-injury and suicide attempts. Peers are not the only type of social support that can affect an individual that self-injures. It is essential to consider parents' social support.

Kelada, Whitlock, Hasking, and Melvin (2016), in Australia, assessed the parents' experience regarding their child's self-injury. The study included 15 mothers and 1 father with an age range of 36-56, and their adolescent children were mostly girls (62.5%) between the ages of 14 and 17. Participants were recruited through five high schools in Victoria, Australia. Parents were mailed a questionnaire to complete, and adolescents completed a questionnaire under the supervision of a researcher and mental health staff member if criteria were met to participate in the study. Questions addressed parents' knowledge of their child's self-injury, reaction to NSSI, experiences after discovering NSSI, interactions with professionals, changes to the parent-child relationship, perceived helpfulness, and perceived unhelpfulness. Four themes emerged regarding changes to the parent-child relationship, which included increased vigilance, shift in power dynamics,

felt closer to their child, and modifying problem behaviors. Part 2 of the study included 22 participants (18 mothers and 4 fathers). The children were between the ages of 15 and 24 with a history of NSSI. Participants were recruited for interviews in New York State, and were face-to-face, over the phone, or through Skype. There were three major themes when parents of young adults were asked about their child's NSSI. They stated that they lacked knowledge that their child was engaging in NSSI, they were uncertain about how to interact with their child after finding out about their NSSI, and there were negative experiences with mental health professionals. For the purposes of this study, uncertainty about how to interact with their child after finding out about their NSSI will be discussed. Parents often felt that they were not equipped on how to approach their child's engagement in NSSI, and fearful that certain discussions may trigger NSSI. Findings suggest that family-based interventions may be important when treating NSSI.

The Effects of NSSI Websites

An increase in Internet accessibility means that there are more opportunities than ever before for websites with self-harm discussions. Harris and Roberts (2013) in the United Kingdom used an online questionnaire to assess NSSI website use. A total of 329 participants (91.8% women) with a mean age of 23.06 years participated identified as White (90.3%), mixed ethnicity (3.3%), Asian (1.5%), Chinese (1.5%), Black (0.6%). Of the participants, 98.5% reported a previous history of self-injury. Some negative findings were found associated with self-harm websites. Results revealed that some people said they used the websites to look for triggering material or tips. Also, it was shown that the competitiveness related to self-harm could actually be fueled by these websites and, some

individuals reported that they engaged in the use of self-harm websites because some websites did not moderate the material that was posted.

Harris and Roberts (2013) also found some benefits with self-harm websites. People who used them said they used the websites for "help and support" from others, as well as, "distraction and expression." These websites were described as being places where people could go to "vent" without having to worry about feeling judged or the stigma associated with NSSI. Engaging in website use also increased awareness and understanding of other mental health issues and disorders and were used as a way of forming friendships. These friendships helped reduce the loneliness associated with their own self-harm. Finally, website use was associated with "isolation reduction and community engagement." Most people felt as though these websites were the only way to communicate with others who offered understanding. It made people believe that they were not alone. An implication for clinicians is to be aware of these sites when treating individuals who self-injure as well as the individual's motives for using the site.

Stigma with NSSI

Ferrey et al. (2016) conducted semi-structured interviews with 37 parents (32 mothers and 5 fathers) of 35 young people (29 daughters with an average age of 18.7 and 6 sons with an average age of 22.8). Participants identified as White (97.3%) and Black British (0.03%). Interviews began with an open-ended question where the parent described their experience caring for their child who self-injured. Follow-up questions were asked to get more information. Semi-structured prompts were then used based on topic areas identified through the research literature. Parents reported feeling isolation when their

child self-harmed, because they were afraid of what others might think. Parents withdrew social contact because of the perceived stigma associated with self-harm. The results suggest that individuals working with families should be aware of the stigma related to NSSI, and avoid contributing to this issue. Professionals should offer support and guidance to families. It is essential to review how professionals feel about working with individuals that self-injure to see if they contribute to the problem.

In the United Kingdom, Hadfield, Brown, Pembroke, and Hayward (2009) recruited Accident and Emergency doctors who had experience working with people who self-injured. A total of 5 doctors (3 women and 2 men) participated in the study with an average number of years treating people who self-injury of 7.1 years. Interviews were conducted with open-ended questions regarding self-injury. Some example questions were "How do you feel about people who present to Accidents and Emergency departments following self-harm?" and "How has treating people who self-harm affected, if at all, the way you view people who self-harm?" Results indicated that medical professionals who viewed self-injury as manipulative were less likely to spend time with the client and may even ask another professional to see the patient. The implication for this research is to offer training for Accident and Emergency department doctors on how they respond to individuals who self-injure and how they meet their needs.

It is important to know how professionals address self-injury, but it is just as important to consider how an individual feels about their own NSSI. The literature often discusses deviant behavior when talking about stigma and self-injury. Deviant acts are those behaviors that are outside the common social norms. Therefore, self-injury is

considered a deviant act, which is then associated with stigma and social disapproval. Covering up self-injury may reflect shame from the individual, but there may also be a desire to avoid making others feel uncomfortable (Taylor & Ibañez, 2015), which could be related to stigma. Hodgson (2004) assessed stigma management techniques used by individuals that self-injure. The age range was between 18 and 35 years old with the majority of participants being women (82%). Data was collected through interviewing people online. The researcher posted on self-injury message boards to recruit participants. Individuals interested in participating were told to contact the researcher through email. After consent, participants were given an interview guide with spaces between questions allowing participants to type their answers. Participants were asked when they first began cutting, if they tried to hide their self-injury, and if so, how. They were also asked about excuses or lies they may have used if someone noticed their cuts/scars. Results revealed that in order to try to avoid being labeled "deviant," individuals who self-injure may use passing or cover stories. Passing is when individuals choose to wear long pants and long-sleeved shirts, choosing discreet locations to cut, and not participating in any activities that may show that they cut (e.g., swimming). The study found that 95% individuals chose to use passing to try to hide their marks. Cover stories are when individuals who self-injure are unexpectedly exposed, so they either try to change the subject or come up with a cover story (e.g. I got scratched by my cat). The study illustrates the importance of including a sociological perspective when trying to understand how we should react to and help individuals that self-injure instead of labeling them.

The Current Study

The general aims of the current study are to assess the relationship between gender, suicidal ideation, website use, bodily location, social support, and stigma. Previous research has shown that men are more likely to die by suicide, so this study assesses whether there is a gender difference in suicide risk. Because there were only two studies that could be found on bodily location differences of NSSI between genders, the current study is needed to examine whether the results can be replicated. The current study also assesses whether individuals pick certain bodily locations to try to reduce stigma that may be easier to cover up.

Based on past research, the current study examines the relationship between NSSI website use and social support, as well as suicidal risk and social support. Lacking social support or a high quality friendship may result in individuals reaching out to others and, therefore, using NSSI websites to feel connected. Also, feeling like a burden increases suicide risk (Joiner, 2005), so individuals who do not perceive that they have any social support may be at an increased risk for suicide too. The following study examines whether the results for using NSSI websites can be replicated. Parents of youth who self-injured often withdrew social contact because of the perceived stigma associated with it, and parents were fearful that certain discussions may trigger NSSI (Kelada et al., 2016). If parents were fearful of certain discussions with their child and felt stigma associated with their child's self-injury, this may impact the parent-child relationship and overall support. The current study examines if social support and stigma are related.

A previous study found that the majority of individuals covered their self-injury, which may be related to a desire to avoid making others feel uncomfortable. The current study examines if stigma predicts whether an individual tries to cover their self-injury. The study also examines if stigma predicts suicide risk as feeling more social disapproval may result in an increased feeling of burden to others. Finally, this study assesses if self-injuring more than one bodily location increases suicide risk as past research has revealed the learned ability to hurt oneself increases suicide risk.

Research Questions

The current study addresses the following research questions: Does bodily location predict stigma? Are stigma and social support related? Does stigma predict covering up self-injury? Does gender predict location? Does social support predict NSSI website use? Does overall social support, self-stigma, gender, or multiple bodily locations predict suicide risk?

Methods

Participants

There were a total of 59 participants (10 men; 49 women) between the ages of 18 and 20 years old. The average age of the sample was 18.88 years with a standard deviation of .79. The sample of this study included adults who are White (67.8%), African American (16.9%), Hispanic (6.8%), Native American (3.4%), and Asian American (3.4%). Demographic information can be found in Table 1 below.

Measures

Bodily Location. Participants were asked, “What parts of your body have you hurt?”

Participants had the option to select one or more of the following: "arms, legs, stomach, chest, genitals, face, and other" (Sornberger et al., 2012). There were not any changes made to this measure from how it was developed.

Social support. Social support was assessed using the Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988), which has 12-items regarding friends, family, and significant other social support. Participants were be asked to respond using a 7-point scale ranging from 1 *very strongly disagree* to 7 *very strongly agree* to 8 statements (e.g., "My family really tries to help" or "I can talk about my problems with my friends"). The overall social support scale showed good internal reliability ($\alpha = .93$). The subscales including significant other ($\alpha = .90$), family ($\alpha = .89$), and friends ($\alpha = .89$) showed good internal reliability as well.

NSSI websites. Participants were asked if they have ever gone onto an NSSI website. They were also asked about frequency, length of time on site, if they post on the site, and the reason for using the site. All questions were open answer with a space provided for participants to type their responses.

Perceived Devaluation and Discrimination Scale. To assess public stigma, a modified version of the Perceived Devaluation and Discrimination Scale was used (Link, Struening, Rahav, Phelan, & Nuttbrock, 1997). This scale was previously modified to "mental patient," (Link, Struening, Neese-Todd, Asmussen, & Phelen, 2002). The current study used "NSSI" in place of "mental patient," which has already been used in previous research (Kholodkov, 2011). Example statements that participants were asked to respond to include, "Most believe that a former NSSI patient cannot be trusted," and "Most

people look down on people who have been hospitalized for NSSI." Response categories can be one of the following, *strongly agree*, *agree*, *disagree*, and *strongly disagree*. The scale showed adequate internal reliability ($\alpha = .82$).

Self-Stigma Scale. An adaptation of the Self-Stigma Scale (Austin, MacLeod, Dunn, Shen, & Perkins, 2004) was used to assess self-stigma. This scale was originally used for children with a seizure disorder. For the current study, "NSSI" will be used in place of "epilepsy." Participants will be asked to respond using a 5-point scale ranging from 1 *never* to 5 *very often* to 5 statements (e.g., "How often do you feel different from other people your age because you have engaged in NSSI" and "How often do you feel embarrassed about engaging in NSSI?"). The current study showed good internal consistency ($\alpha = .89$).

Suicidal Ideation. An adaptation of the Suicidal Thoughts and Wishes from the Beck Depression Inventory-II (Beck, Steer, & Brown, 1996) was used. Participants were asked how they are feeling currently on a 4-point scale from *I don't have any thoughts of killing myself* to *I would kill myself if I had the chance.*

Procedures

Data were collected in the fall of 2016 and the spring of 2017 using SONA systems, an online platform for research participant recruitment and management, at a medium-sized Midwestern US university. Participants were given extra credit in their psychology classes for participating in this study. Generally, for every 15 minutes of research participation, participants were given one extra credit point. The current study took approximately 45 minutes; therefore, participants were given three extra credit points for

participating. A demographic survey along with the aforementioned measures was completed at consent. Adults were asked to complete a survey with all of the measures discussed above. After finishing the study, participants were thanked for their participation.

Results

Descriptive Statistics

Means and standard deviations were calculated for self-stigma, public-stigma, overall social support, significant other social support, family social support, and friend social support and can be found in Table 2 below. Frequencies were calculated for bodily locations and whether an individual endorsed trying to cover their self-injury and can be found in Table 3 below. Distributional properties of each variable were evaluated for normality of data.

Correlations

Correlations were examined between friends, family, significant other, and overall social support, and public and self-stigma. Significant other social support was significantly correlated with family social support ($r = .65$, $p < .01$), friends' social support ($r = .62$, $p < .01$), and overall social support ($r = .88$, $p < .01$). Family social support was significantly correlated with friends' social support ($r = .53$, $p < .01$) and overall social support ($r = .86$, $p < .01$). Friends' social support was significantly correlated with overall social support ($r = .82$, $p < .01$). Results can be found in Table 4 below.

Stigma

To examine whether bodily location predicted stigma, an independent samples t-test was conducted. A Bonferroni correction was used; therefore, the new significance level is $p = .005$. Results for self-stigma and bodily location can be found in Table 5 below, and results for public stigma and bodily location can be found in Table 6 below. There was a small effect size for head ($d = .42$) and genitals ($d = .49$) for self-stigma. There was a medium effect size for limbs ($d = .61$), torso ($d = .57$), and number of bodily locations ($d = .69$) for self-stigma. There was a small effect size for head ($d = .20$) and limbs ($d = .26$) for public stigma.

To examine whether social support and stigma were related, a correlation was conducted. Self-stigma was not significantly related to significant other social support ($r = .01$, $p = ns$), family social support ($r = -.13$, $p = ns$), friends' social support ($r = -.14$, $p = ns$), or overall social support ($r = -.10$, $p = ns$). Perceived devaluation and discrimination was not significantly related to significant other social support ($r = -.06$, $p = ns$), family social support ($r = -.10$, $p = ns$), friends' social support ($r = -.07$, $p = ns$), or overall social support ($r = -.09$, $p = ns$).

To examine whether stigma predicted covering up self-injury, a t-test was conducted. The independent samples t-test indicated that trying to cover self-injury ($M = 3.27$, $SD = .85$) compared to not trying to cover self-injury ($M = 2.84$, $SD = 1.14$) was not significantly different for self-stigma, $t(56) = 1.30$, $p = ns$. Another independent samples t-test indicated that trying to cover self-injury ($M = 2.44$, $SD = .46$) compared to not trying to cover self-injury ($M = 2.43$, $SD = .36$) was not significantly different for public-

stigma, $t(56) = .08$, $p = ns$. However, roughly 15% of individuals did not endorse trying to cover their self-injury. Therefore, the sample size of this group is extremely small, so there is not much power.

Gender

To examine whether gender predicted location, Cramer's V was used because there was not the expected value of 5 in each cell to do a chi-square test of independence. The effect size was not significant for head, Cramer's V = .05, limbs, Cramer's V = .19, genitals, Cramer's V = .17, or number of bodily locations, Cramer's V = .07. However, the effect size was significant for torso, Cramer's V = .30, $p < .05$. This finding indicates that there is a moderately strong relationship between gender and torso with women significantly endorsing torso more than men.

Websites

Unfortunately, due to a low number of participants using NSSI websites, no analyses could be conducted. However, the reasons for using NSSI websites for those participants will be discussed. Of the participants who used NSSI websites, 3 did not post on the site, 1 posted to ask for advice, and another posted for updates or motivational messages. On average, 3 participants spent less than one hour on the site, 1 spent an hour or two on the site, and 1 spent 10 hours on the site. However, it is unknown if this is lifetime usage or daily usage or how often they generally stay on the site when they use it. The reasons for using the website were to feel connected to others, find out others' opinions, feel a sense of community, like to know others feel the same, and for motivation.

Suicidal Ideation

To examine whether gender, stigma, and social support predicted suicidal ideation, an ANOVA was conducted. A one-way ANOVA indicated that there was a significant difference between self-stigma, $F(2, 56) = 4.33$, $p < .05$, and number of bodily locations an individual self-injures, $F(2, 56) = 10.46$, $p < .001$ in suicidal ideation. To examine the nature of these differences, a Bonferroni post-hoc test was conducted. The post-hoc test indicated that "I don't have any thoughts of killing myself" and "I have thoughts of killing myself, but I would not carry them out" were significantly different for both self-stigma and number of bodily locations an individual self-injures. Group means and standard deviations are provided in Table 7 below. There was no significant difference between gender, $F(2, 56) = .33$, $p = ns$ and overall social support, $F(2, 56) = 1.58$, $p = ns$ in suicidal ideation.

Discussion

This study examined the relationship between NSSI bodily location, stigma, social support, and suicidal ideation. It did not appear that self-injuring specific bodily locations predicted stigma. It was hypothesized that individuals who feel highly stigmatized may self-injure discreet bodily locations. However, results from this study suggest that specific bodily locations may not play a part in the already high amount of stigma that someone who self-injures feels. It also did not appear that stigma was associated with covering up self-injury. The high number of participants (85%) who tried to cover their self-injury may have resulted in little power to detect an effect for the 15% of individuals who did not try to cover their self-injury. Self-injuring more than one bodily location was

not significantly different from self-injuring one location for self-stigma or public stigma suggesting number of bodily locations an individual self-injures does not predict stigma.

It is important to consider effect size to see if there were meaningful differences as the small sample size may have affected the ability to detect any effects. There was a medium effect size for limbs, torso, and number of bodily locations for self-stigma suggesting there were meaningful differences between someone endorsing these bodily locations and someone not endorsing these bodily locations. Individuals self-injuring their limbs reported higher self-stigma than those who did endorse self-injuring their limbs. This could be because it may be difficult to cover up scars, especially on the wrists or lower legs if long-sleeve shirts and long pants cannot be worn at all times. Therefore, individuals may worry about others easily finding out that they self-injure and then worry about what others are going to think about their self-injury. Individuals self-injuring their torso reported higher self-stigma than those who did not endorse self-injuring their torso. It is possibly that an individual who self-injures their torso may feel like they are unable to do certain activities (e.g., swimming or go to the gym) without feeling stigmatized. Finally, individuals self-injuring multiple bodily locations reported higher self-stigma than those who self-injured one bodily location. This may be because trying to cover multiple bodily locations at all times is more difficult than trying to cover scars from one bodily location. Furthermore, having more scars may make an individual feel more embarrassed or worried about making others feel uncomfortable, and therefore, more stigmatized.

Self-stigma and self-injuring multiple bodily locations predicted suicidal ideation.

This is consistent with previous research as feeling social disapproval may result in feeling like a burden to others (Joiner, 2005). Furthermore, multiple bodily locations may increase a person's learned ability to hurt oneself, which has been found to increase suicidal ideation (Joiner, 2005). Self-stigma and multiple bodily locations seem to be associated with an increase in feeling like a burden to others and an increase in a person's learned ability to hurt oneself. Both feeling like a burden to others and a person's learned ability to hurt oneself are associated with higher acquired capability for suicide. Therefore, it is important to be aware of factors that are related to these variables. This study suggests self-stigma and self-injuring multiple bodily locations are related to a higher acquired capability for suicide. Self-injuring multiple bodily locations fits well with past research suggesting that using multiple NSSI methods may lead someone to contemplate suicide as an option (Wester et al., 2014).

Gender did not predict suicidal ideation, which is inconsistent with past research, as men tend to die by suicide more than women, but women attempt suicide more than men (Muehlenkamp, 2005; Walsh, 2005). The lack of men in this study could have impacted this finding. Social support also did not predict suicidal ideation. It is interesting that self-stigma predicted suicidal ideation, but social support did not. It could be that stigma is more closely associated with social disapproval than social support. If someone does not have any social support, it does not mean that they are experiencing social disapproval. But, if someone believes what he or she is doing is a highly stigmatized activity (i.e., NSSI); they may feel social disapproval, therefore, increasing suicidal ideation.

Stigma and social support did not seem to be related. Previous research suggested

parents felt a high amount of stigma when they learned their child self-injured and did not know how to approach their child's self-injury (Kelada et al., 2016). It could be that parents were not aware that their child self-injured, so parents did not feel stigmatized about their child self-injuring, therefore, there was no impact on the parent-child relationship. Previous research also suggested that individuals would be willing to provide support when they learned of their friend self-injuring (Bresin et al., 2013). However, a previous study reported that there was a greater likelihood of NSSI disclosure when there was a higher friendship quality (Armineto et al., 2014). It is possible that participants did not disclose their self-injury because they did not have a high-quality friendship, which means a friend may not have been able to provide extra support if they did not know about the self-injury. Furthermore, it is also possible that all participants had a relatively high amount of social support potentially affecting the results. Overall, these findings suggest that stigma may not impact social relationships or the parent-child relationship.

Women significantly endorsed torso compared to men. The effect size showed a meaningful difference. Unlike previous research, there were no differences between genders on arms, legs, chest, genitals, or face (Sornberger et al., 2012). These results show that women may self-injure areas that are less visible than men, which is consistent with past research (Sornberger et al., 2012). Again, the results may have been affected by such a low number of men in the study. Qualitative data showed that individuals used websites to feel connected and feel a sense of community, which is consistent with previous research (Harris & Roberts, 2013). The small number of participants who used

these sites limited the results of this study, because Harris and Roberts (2013) also found that NSSI websites were used for negative reasons. Such a small number of participants endorsing that they used NSSI websites may be because people are now using social media as an outlet.

Limitations

The study had a restricted age range, from 18-20 years old only. Future research should incorporate a more broad age range. Also, this study included only college students, which may affect the generalizability of results to other populations. Furthermore, college students using research participation for extra credit may be lying in order to get their extra credit. It is possible that other unmeasured variables may be related to, for example, suicidal ideation and NSSI. There was a lack of men, with only 10 men and 49 women. Self-report data may have affected the results by impacting participants' ability to recall information about their most recent self-injury. There was only one question assessing suicidal ideation. It would benefit future research to use a full scale that thoroughly assesses suicidal ideation instead of relying on one question. Finally, the adaptations made to both the self-stigma scale and the perceived devaluation and discrimination scale are limitations to this study potentially impacting the validity.

Future Directions

Future studies will benefit from using real time techniques to assess self-injury rather than just relying on self-report data. Also, it is important to identify moderating factors, for example, what moderates or possibly mediates the relationship between someone who self-injures and whether or not they use a NSSI website? Knowledge of moderating

factors may help clinicians know where to start with treatment. It is vital to look into mechanisms underlying relationships as well. For example, we need more information on why self-injury leads to suicidal ideation; although this study shows that self-stigma and self-injuring multiple bodily locations might have something to do with it. A more sensitive measure for assessing bodily location than what was used could reveal more differences between men and women. As an example, it may be possible that men injure the top of their arms, while women injure their forearms, but this data is not captured with an assessment that only has arms as a response item. It is also important to get more participants who use self-injurious websites to get a better understanding of why some do not and others do use these sites, as well as, when someone uses them for negative reasons and others use them for positive reasons.

Implications

The results of this study have clinical implications especially related to suicide. Clinicians should be aware of the relationship between NSSI and suicidal ideation by addressing stigma and number of bodily locations a person self-injures when doing risk assessments. Since self-stigma predicted suicidal ideation, it would be vital to consider addressing how clients feel about their self-injury. Furthermore, since self-injuring more than one bodily location predicted suicidal ideation, it would be necessary to consider asking clients where they self-injure and make note of how many bodily locations they list. These items could easily be a part of a routine suicide risk assessment in college counseling centers and other outpatient treatment facilities.

References

Anestis, M. D., Coffey, S. F., Schumacher, J. A., & Tull, M. T. (2011). Affective vulnerabilities and self-injury in suicide. *Archives of Suicide Research, 15*(4), 291-303. doi:10.1080/13811118.2011.615688

Armiento, J. S., Hamza, C. A., & Willoughby, T. (2014). An examination of disclosure of nonsuicidal Self-injury among university students. *Journal of Community & Applied Social Psychology, 24*(6), 518-533. doi:10.1002/casp.2190

Austin, J., MacLeod, J., Dunn, D., Shen, J., & Perkins, S. (2004). Measuring stigma in children with epilepsy and their parents Instrument development and testmg. *Epilepsy & Behavior, 5,* 472-482. doi: 10 1016/j-yebeh-2004-04-008

Beck, A. T., Steer, R. A., & Brown, G. K. (1996). Beck depression inventory-II. *San Antonio*, *78*(2), 490-8.

Bresin, K., Sand, E., & Gordon, K. H. (2013). Non-suicidal self-injury from the observer's perspective: A vignette study. *Archives of Suicide Research, 17*(3), 185-195. doi:10.1080/13811118.2013.805636

Brown, M. Z., Comtois, K. A., & Linehan, M. M. (2002). Reasons for suicide attempts and nonsuicidal self-injury in women with borderline personality disorder. *Journal of Abnormal Psychology, 111*(1), 198-202. doi:10.1037//0021-843X.111.1.198

Ferrey, A. E., Hughes, N. D., Simkin, S., Locock, L., Stewart, A., Kapur, N., Gunnell, D., & Hawton, K. (2016). The impact of self-harm by young people on parents and

families: A qualitative study. *BMJ Open, 6*(1), e009631. doi: 10.1136/bmjopen-2015-009631

Gladstone, G. L., Parker, G. B., Mitchell, P. B., Malhi, G. S., Wilhelm, K., & Austin, M. (2004). Implications of childhood trauma for depressed women: An analysis of pathways from child- hood sexual abuse to deliberate self-harm and revictimization. *American Journal of Psychiatry*, *161*, 1417-1425.

Glassman, L. H., Weierich, M. R., Hooley, J. M., Deliberto, T. L., & Nock, M. K. (2007). Child maltreatment, non-suicidal self-injury, and the mediating role of self-criticism. *Behaviour Research and Therapy*, *45*, 1-8.

Gollust, S. E., Eisenberg, D., & Golberstein, E. (2008). Prevalence and correlates of self-injury among university students. *Journal of American College Health, 56*(5), 491-498. doi:10.3200/JACH.56.5.491-498

Gratz, K. L. (2001). Measurement of deliberate self-harm: Preliminary data on the deliberate self-harm inventory. *Journal of Psychopathology and Behavioral Assessment, 23*(4), 253-263. doi:10.1023/A:1012779403943

Hadfield, J , Brown, D , Pembroke, L , & Hayward, M (2009) Analysis of accident and emergency doctors' responses to treating people who self-harm. *Qualitative Health Research, 19(6),* 755-765. doi 10 1177/1049732309334473

Harris I. M. & Roberts L. M. (2013). Exploring the use of effects of deliberate self-harm websites: An internet-based study. *Journal of Medical Internet Research 15*(12). doi:10.2196/jmir.2802

Heath, N. L., Ross, S., Toste, J. R., Charlebois, A., & Nedecheva, T. (2009). Retrospective analysis of social factors and nonsuicidal self-injury among young adults. *Canadian Journal of Behavioural Science/Revue Canadienne Des Sciences Du Comportement, 41*(3), 180-186. doi:10.1037/a0015732

Hodgson, S. (2004). Cutting through the silence: A sociological construction of self-injury. *Sociological Inquiry, 74*(2), 162-179. doi:10.1111/j.1475-682X.2004.00085.x

Jacobson, C. M., & Gould, M. (2007). The epidemiology and phenomenology of non-suicidal self-injurious behavior among adolescents: A critical review of the literature. *Archives of Suicide Research, 11*(2), 129-147. doi:10.1080/13811110701247602

Joiner, T., Jr. (2005). *Why people die by suicide*. Cambridge, Mass: Harvard University Press.

Kelada, L., Whitlock, J., Hasking, P., & Melvin, G. (2016). Parents' experiences of nonsuicidal self-injury among adolescents and young adults. *Journal of Child and Family Studies, 25*(11), 3403-3416. doi:10.1007/s10826-016-0496-4

Kholodkov, T. (2011). *Stigmatization as a barrier to help-seeking among individuals who engage in non-suicidal self-injury.* Retrieved from ProQuest Dissertations & Theses Global database. (AAT 1496003)

Klonsky, E. D. (2011). Non-suicidal self-injury in United States adults: Prevalence, sociodemographics, topography and functions. *Psychological Medicine, 41*(9), 1981-1986. doi:10.1017/S0033291710002497

Link, B. G., Struening, E. L., Rahav, M., Phelan, J. C., & Nuttbrock, L. (1997). On stigma and its consequences: Evidence from a longitudinal study of men with dual diagnoses of mental illness and substance abuse. *Journal of Health and Social Behavior, 38*(2), 177-190.

Link, B. G., Struening, E. L., Neese-todd, S., Asmussen, S., & Phelan, J. C. (2002). On describing and seeking to change the experience of stigma. *Psychiatric Rehabilitation Skills, 6*(2), 201-231. doi:10.1080/10973430208408433

Moller, C. I., Tait, R. J., & Byrne, D. G. (2013b). Self-harm, substance use and psychological distress in the Australian general population. Addiction, 108(1), 211–220. doi:10.1111/j.1360-0443.2012.04021.x

Muehlenkamp, J. J. (2005). Self-injurious behavior as a separate clinical syndrome. *American Journal of Orthopsychiatry, 75*(2), 324.

Nock, M. K. (2009a). *Understanding nonsuicidal self-injury: Origins, assessment, and treatment*. American Psychological Association.

Nock, M. K. (2009b). Why do people hurt themselves? New insights into the nature and functions of self-injury. *Current Directions in Psychological Science, 18*(2), 78-83. doi:10.1111/j.1467-8721.2009.01613.x

Nock, M. K., Joiner, T. E., Gordon, K. H., Lloyd-Richardson, E., & Prinstein, M. J. (2006). Non-suicidal self-injury among adolescents: Diagnostic correlates and relation to suicide attempts. *Psychiatry Research, 144*(1), 65-72. doi:10.1016/j.psychres.2006.05.010

Nock, M. K., Prinstein, M. J., & Sterba, S. K. (2010). Revealing the form and function of self-injurious thoughts and behaviors: A real-time ecological assessment study among adolescents and young adults. *Journal of Abnormal Psychology*, *118*(4), 816.

Polk, E., & Liss, M. (2007). Psychological characteristics of self-injurious behavior. *Personality and Individual Differences, 43*(3), 567-577. doi:10.1016/j.paid.2007.01.003

Soloff, P. H., Lis, J. A., Kelly, T., Cornelius, J., & Ulrich, R. (1994). Self-mutilation and suicidal behavior in borderline personality disorder. *Journal of Personality Disorders, 8*(4), 257-267. doi:10.1521/pedi.1994.8.4.257

Sornberger, M. J., Heath, N. L., Toste, J. R., & McLouth, R. (2012). Nonsuicidal self-injury and gender: Patterns of prevalence, methods, and locations among adolescents. *Suicide & Life-Threatening Behavior, 42*(3), 266. doi:10.1111/j.1943-278X.2012.00088.x

Taliaferro, L. A., & Muehlenkamp, J. J. (2015). Risk factors associated with self-injurious behavior among a national sample of undergraduate college students. *Journal of American College Health, 63*(1), 40-40. doi:10.1080/07448481.2014.953166

Taylor, J.D., & Ibañez, L. M. (2015). Sociological approaches to self-injury. *Sociology Compass, 9*(12), 1005-1014. doi:10.1111/soc4.12327

Turner, B. J., Cobb, R. J., Gratz, K. L., & Chapman, A. L. (2016). The role of interpersonal conflict and perceived social support in nonsuicidal self-injury in

daily life. (2016). *Journal of Abnormal Psychology, 125,* 588-598. doi:10.1037/abn0000141

Walsh, B.W. (2005). Treating self-injury: A practical guide. New York, NY: Guilford Press.

Wester, K. L., Ivers, N., Villalba, J. A., Trepal, H. C., & Henson, R. (2016). The relationship between nonsuicidal self-Injury and suicidal ideation. *Journal of Counseling & Development, 94*(1), 3-12. doi:10.1002/jcad.12057

Whitlock, J., Eckenrode, J., & Silverman, D. (2006). Self-injurious behaviors in a college population. *Pediatrics, 117*(6), 1939-1948. doi:10.1542/peds.2005-2543

Whitlock, J., Muehlenkamp, J., Eckenrode, J., Purington, A., Baral Abrams, G., Barreira, P., & Kress, V. (2013). Nonsuicidal self-injury as a gateway to suicide in young adults. *Journal of Adolescent Health, 52*(4), 486-492. doi:10.1016/j.jadohealth.2012.09.010

Willoughby, T., Heffer, T., & Hamza, C. A. (2015). The link between nonsuicidal self-injury and acquired capability for suicide: A longitudinal study. *Journal of Abnormal Psychology, 124*(4), 1110-1115. doi:10.1037/abn0000104

Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of personality assessment*, *52*(1), 30-41.

Table 1.

Demographics

Variable	*N*	%
Gender		
Women	49	83.1
Ethnicity		
White	40	67.8
African American	10	16.9
Hispanic	4	6.8
Asian American	2	3.4
Native American	2	3.4
Household income		
Less than $10,000	1	1.7
$10,000 – $39,999	11	18.7
$40,000 - $69,999	14	23.8
$70,000 – $99,999	15	25.5
$100,000 or more	16	27.1
Mental health diagnosis		
Anxiety disorder	17	28.8
Depression	22	37.3
Attention-deficit hyperactivity disorder	2	3.4
Borderline personality disorder	1	1.7
Post-traumatic stress disorder	3	5.1
Schizophrenia	1	1.7
Oppositional defiant disorder	1	1.7

Table 2.

Descriptive Statistics

Variable	*M*	*SD*	*Min*	*Max*
Significant other social support	5.21	1.44	1.00	7.00
Family social support	4.70	1.57	1.00	7.00
Friends social support	4.92	1.32	1.00	7.00
Overall social support	4.93	1.24	1.00	7.00
Self-stigma	3.19	.90	1.00	4.60
Public-stigma	2.44	.44	1.09	3.45

Table 3.

Frequencies for Bodily Location and Covering Self-Injury

Variable	*Endorsed*	*Did not Endorse*
Head	8	51
Limbs	54	5
Torso	18	41
Genitals	2	57
More than 1 site	28	31
Try to cover self-injury	49	9

Table 4.

Bivariate Correlations between Social Support and Stigma

	Bivariate correlations				
Variable	1	2	3	4	5
1. Significant other social support	---				
2. Family social support	.65**	---			
3. Friends social support	.62**	.53**	---		
4. Overall social support	.88**	.86**	.82**	---	
5. Self-stigma	.01	-.13	-.14	-.10	---
6. Perceived devaluation and discrimination	-.06	-.10	-.07	-.09	.23

** $p < .01$

Table 5.

Independent Samples T-Test and Effect Size for Self-Stigma and Bodily Location

Bodily Location	Self-Stigma		Significance		Effect Size
	M	*SD*	*t*	*p*	*d*
Head	3.45	.35			
Not Head	3.15	.95	-.87	.39	.42
Limbs	3.24	.89			
Not Limbs	2.68	.95	-1.34	.19	.61
Torso	3.53	.81			
Not Torso	3.04	.91	-1.97	.05	.57
Genitals	3.50	.14			
Not Genitals	3.18	.91	-.49	.63	.49
One Bodily Location	2.92	1.07			
Multiple Bodily Locations	3.50	.53	-2.61	.01	.69

Table 6.

Independent Samples T-Test and Effect Size for Public Stigma and Bodily Location

Bodily Location	Public Stigma		Significance		Effect Size
	M	*SD*	*t*	*p*	*d*
Head	2.51	.45			
Not Head	2.43	.44	-.49	.62	.20
Limbs	2.45	.46			
Not Limbs	2.36	.17	-.40	.69	.26
Torso	2.41	.47			
Not Torso	2.45	.43	.31	.76	.09
Genitals	2.36	.39			
Not Genitals	2.44	.44	.25	.81	.19
One Bodily Location	2.40	.43			
Multiple Bodily Locations	2.48	.45	-.66	.51	.18

Table 7.

Means and Standard Deviations for Differences in Suicidal Ideation

Variable	I don't have thoughts of killing myself.		I have thoughts of killing myself, but I would not carry them out.		I would like to kill myself.	
	M	*SD*	*M*	*SD*	*M*	*SD*
Self-stigma	2.99	.93	3.69	.58	3.80	.85
Bodily Locations	.31	.47	.87	.35	1.00	.00