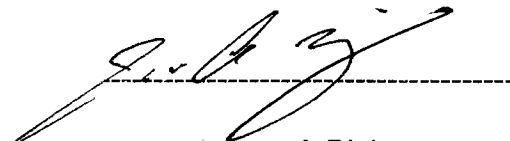


PERCEPTIONS OF NURSING STUDENTS TOWARD THOSE WHO SELF-
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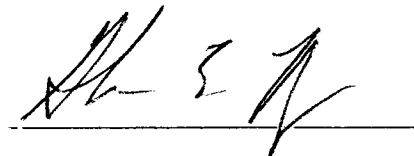


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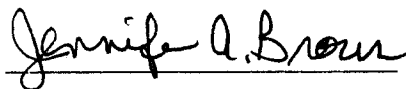
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PERCEPTIONS OF NURSING STUDENTS TOWARD THOSE WHO SELF-
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A Thesis

Submitted to

The Graduate Faculty of
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In Partial Fulfillment of the

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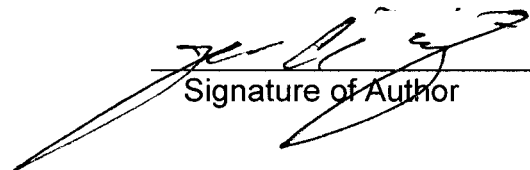
Montgomery, Alabama

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PERCEPTIONS OF NURSING STUDENTS TOWARD THOSE WHO SELF-INJURE

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May 12, 2012

Date of Graduation

Perceptions of Nursing Students Toward Those Who Self-Injure

By

James A. Bishop

A thesis submitted to the Graduate Faculty of
Auburn University Montgomery
in partial fulfillment of the
requirements for the degree of
Master of Science in Psychology

Montgomery, Alabama
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[Self-Injury, Perception, Nursing]

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ABSTRACT

The purpose of the current study was to examine the perceptions that nursing students have toward those who self-injure. Additionally, this study sought to change the perceptions that nursing students have toward self-injurious behavior (SIB) through an informative and educational presentation on SIB. Nursing students ($N=83$) at a small urban southeastern university were given a forty-five to sixty minute informative and educational presentation on self-injury. Participants were given the Self-Injurious Behavior Perceptions Questionnaire (SIBPQ) and the Community Attitudes Toward the Mentally Ill Scale (CAMI) in a pretest/posttest design. Results showed that participants who endorsed negative attitudes of self-injury at pretest did not endorse the same perceptions following the presentation. Additionally, results indicate that attitudes toward general psychopathology also became more positive as an effect of the informative presentation on SIB.

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Review of Literature

Introduction

Self-injurious behavior (SIB) has been a topic of interest in recent years. The American Psychiatric Association has proposed that self-injurious behavior (under the name non-suicidal self-injury) be added as a diagnosis to the next revision of the DSM (APA, 2010). There is, however, little agreement on what is the appropriate term for these behaviors. Articles have been published with terms such as deliberate self-harm (Gratz, 2001), self-mutilation (Favazza, 1998), non-suicidal self-injury (Nock & Mendes, 2008), and even self-injurious behavior (Kakhnovets, Young, Purnell, Huebner, & Bishop, 2010). However, all of these labels share a few key factors. For example, all state that the behavior is (1) purposely self-inflicted and (2) that it is engaged in without the intent to commit suicide (Favazza, 1996; Kress, 2003; Gratz, 2006; Gratz & Chapman, 2007). This definition does not include self-injurious behaviors that are engaged in for cultural practices, such as ritualistic mutilation, or in the course of a developmental disorder (Gratz & Chapman, 2007).

For the purpose of this paper, the term self-injurious behavior (SIB) will be used. The major difference between self-injurious behaviors and suicide attempts are the motivations behind the actions. Those engaging in self-injurious behavior do not wish to end their life but instead wish to live a more distress free life (Briere & Gill, 1995). The motivation behind suicide attempts is for the person to remove him/herself from life all together (Muehlenkamp & Guitierrez, 2004). It is estimated that anywhere from 55% to 85% of those who self-injure have had at least one suicide attempt in their lifetime (Stanley, Winchel, Molocho, Simeon, & Stanley, 1992). Often those who attempt suicide

use a different strategy than they use when self-injuring indicating that the methods used for self-injury are intended to be harmful and not fatal (Favazza & Rosenthal, 1993).

The behaviors that individuals engage in range from something as simple as nail biting all the way up to serious injuries such as cutting (Croyle & Waltz, 2007; Rosen & Heard, 1995). Extreme cases have documented damage that includes broken bones and even genital mutilation (Briere & Gill 1995; Laye-Gindhu & Schonert-Reichl, 2005). As with the method of self-injury, the placement of those injuries also varies. The most common areas are the arms and wrists, but instances of other areas such as the legs, chest, and shoulders have been documented (Rosen & Heard, 1995). Injuries to these areas are often the easiest to conceal because these areas can be readily covered by clothing.

Very little attention has been given to the perception that non-self-injurers have toward SIB. Specifically, it is unclear how medical professionals may respond to the discovery of SIB in patients. Previous research on mental health perceptions indicates that stigma and erroneous perceptions of psychopathology may be related to differential treatment of individuals with mental health problems; more specifically, those with less knowledge of mental illness prefer to have more social distance from those with mental illness (Ladet, 2009). It is for this reason that it is important to investigate the perceptions of SIB in medical professionals and especially nurses. Nurses may be the first to be aware of this behavior, and it is important to investigate their knowledge and perceptions of this behavior.

The purpose of the current study is to assess the perceptions that nursing students have of those who engage in SIB and compare them to their perceptions regarding general psychopathology. Additionally, an intervention aimed at changing these

perceptions will be implemented. The following sections contain information on the occurrence of SIB as well as risk factors associated with the behavior. Also, an examination of mental health perceptions, mental health perceptions in nurses, and the perception of self-injurious behavior is presented.

I. Occurrence of Self-Injurious Behavior

Self-injurious behavior generally begins at around the age of fourteen and progressively intensifies in to the late twenties (Austin & Kortum, 2004; Favazza, 1989). The life of the behavior can last upwards of two decades in some cases. The exact rate of individuals who self-injure in the adolescent and young adult populations is not clear based on the current research. Ross and Heath (2002) found that 13.9% of the high school students in their study had engaged in self-injurious behavior at least once in their lifetime. Higher estimates put the lifetime incidence at 35% in college students (Gratz, 2001). Other research shows rates of 12% in adolescent populations (Favazza, 1998) and 17% in college populations (Whitlock, Eckenrode, & Silverman, 2006). Although rates have been measured as high as 35%, the majority of results support overall lifetime prevalence in adolescent and young adult populations of between 12 to 17%.

Most research in the area of self-injurious behavior has focused on females. However, some studies have been using both males and females to determine the prevalence of SIB. In one study's sample, there were almost two times as many women who reported self-injurious behavior as compared to men (Ross & Heath, 2002). Contrary to this, other studies have found no significant difference in the rates of male and females who self-injure (Gratz, Conrad & Roemer, 2002). This difference in male and female rates could be attributed the decreased likelihood of males reporting self-injury due to

cultural norms of emotional display for men and women. To illustrate, Hochschild's normative theory of emotion posits that males are not culturally expected to be "emotional" and react with overt emotional displays. In contrast, females are expected to be more overtly emotional in their displays (Hochschild, 1979). Additionally, recently published results by Healy, Trepal, and Emelianchik-Key (2010) indicate social norms on how men and women are expected to display self-injurious behavior. Masters-level counseling interns in this study indicated that socially and culturally accepted male behaviors do not typically include emotional manifestations of problems; however physical manifestations are more socially expected (Healey, Trepal, and Emelianchik-Key, 2010). The results also indicate that participants used the term "anger" in association with male behavior and "emotion" was associated more with female behavior.

II. Associated Diagnosis

There are multiple diagnoses that are related to self-injurious behavior. SIB has been found to be associated with borderline personality disorder (Walsh & Rosen, 1988). Other disorders such as major depression, dysthymia, dissociative identity disorder, anxiety disorders, schizophrenia, and eating disorders are all diagnoses that one might find in someone who self-injures (Kress, 2003). With SIB, these diagnoses do not have to be present but often coincide with self-injurious behaviors. Kerr and Muehlenkamp (2010) report that there are features of psychopathology that are associated with self-injury. Elevated levels of depression, anxiety, borderline personality features, suicidality, as well as some psychotic features are displayed in some who self-injure. Kerr and Muehlenkamp (2010) also indicate four themes that are associated with SIB and transcend diagnostic categories. The themes described are emotional and physiological

distress, as well as cognitive distortion, and interpersonal difficulties. Emotional distress indicates that individuals who engage in self-injury experience emotional discomfort. Individuals who engage in self-injury also experience physiological discomfort. Additionally, results showed that individuals who self-injure experience distortions in their thought processes (i.e. self-depreciative thoughts, difficulties in impulse control), and difficulties within interpersonal relationships.

In addition to these associated diagnosis, clinicians view certain disorders as influencing self-injurious behaviors. Healy et al. (2010) found that training clinicians commonly believed depression influences self-injurious behavior. Anxiety is also thought to influence self-injurious behavior but only in presence with depression. Diagnosis of depression was made due to the secretive nature of the behaviors and the social isolation that is required to engage in the act of self-injuring. Additionally, suicidal ideation can occur in the course of self-injurious behaviors.

III. Function

The reason individuals self-injure has received considerable attention in recent years (Nock et al, 2010; Vrouva, Fonagy, Fearon & Roussow, 2010). One study found that the most common functions were distraction from painful feelings and self-punishment (Briere & Gill, 1995). Briere and Gill (1995) performed a factor analysis of the functions of SIB, revealing that self-injurious behavior is believed by participants to (1) decrease dissociative symptoms such as depersonalization and numbing; (2) reduce stress/tension; (3) block out upsetting memories and prevent flashbacks; (4) show a need for intervention; (5) solidify safety and self-preservation; (6) express and release distress; (7) reduce anger; (8) disfigure self as a form of punishment; and (9) hurt oneself in the

absence of others (Briere & Gill, 1995). These results indicate that many of the motivations behind SIB are either positive or negatively reinforcing. This means that participants either gained something positive or removed something negative by engaging in the behaviors.

Nock, Prinstein, and Sterba (2010) reported that the most common type of reinforcement for SIB was negative intrapersonal reinforcement. Specifically, the researchers indicate that the self-injurious behavior was reinforced because the person has removed an unwanted emotion or feeling. Individuals who self-injure are attempting to remove unwanted emotional states such as anxiety, sadness, and anger in order to cope with the emotions. Additionally, individuals used self-injury to escape bad thoughts and memories. In escaping these memories, individuals who self-injure have removed the unwanted emotion or feeling associated with those memories. In addition, Suyemoto (1998) has described a model of affect regulation in which individuals are negatively reinforced by removing the dissociation that occurs from intense affects (anxiety, anger, etc.). This model posits that an individual strives to maintain an internal emotional equilibrium. The dissociation that occurs with the intense affect threatens this equilibrium, and the individual uses self-injury to remove the dissociation.

Self-injurious behavior is also positively reinforcing. Suyemoto (1998) describes various models for why individuals engage in self-injurious behavior. One model that Suyemoto describes is the Affect Regulation Model of Self-Injury. This model states that self-injury stems from an individual's need to express some negative affect such as anger, anxiety, or pain. It also states that individuals who self-injure have not been able to express the negative affect by either verbal means or by any other means. The Affect

Regulation Model of Self-Injury provides an individual who self-injures with an outlet to control or express their emotions; thus the behavior is positively reinforced through the attainment of expression. Additionally, behaviors such as self-punishment are positively reinforcing because they allow people to feel in control over their consequences (Nock & Prinstein, 2004). These individuals inflict injury upon themselves thus exerting control over which consequences they are going to endure. In expression, individuals who self-injure gain control by having an outlet for their emotions. Overall, the most common motivation for self-injurious behavior was to remove bad feelings, which is negatively reinforcing.

Although the majority of individuals engage in self-injurious behaviors for automatic reinforcement (immediate gratification), research also suggests that a smaller number of social reinforcement (delayed gratification) functions are important (Nock & Prinstein, 2004; Nock & Prinstein, 2005). The reasons for engaging in self-injurious behavior that are positively reinforcing socially include getting noticed by others, obtaining some form of reaction (positive or negative), making others angry, or taking control of a situation (Nock & Prinstein, 2004). All positively reinforcing behaviors involve the injurer gaining some sort of gratification on a social level for engaging in self-injury. In addition, some functions of self-injurious behavior are negatively reinforcing socially.

Negatively, socially reinforcing behaviors include avoiding work or school, avoiding others, and avoiding punishment or consequences (Nock & Prinstein, 2004). Behaviors in this category are reinforcing because the individuals learn that they can remove themselves from or avoid an unwanted situation or environment. For example, a

person may injure him or herself to avoid going to work and facing a difficult task. By harming themselves, the individual can use the injury as an excuse to avoid a situation. These individuals may not directly tell someone that they have intentionally injured themselves. The overall trends in the frequency of reported motivations for self-injury indicate that automatic positive and negative reinforcement are the most commonly endorsed. Of these examples of automatic reinforcement, the order of reported frequency is as follows: (1) removal of bad feelings, (2) feeling something, even if it is pain, (3) self-punishment (gain control of situation), (4) reprisal from feelings of numbness and emptiness, and (5) to feel relaxed (Nock & Prinstein, 2004).

Through the study of functions of SIB, gender differences regarding self-injury have been discovered. For instance, males and females report different motivations for engaging in self-injury. Males report more instances of engaging in self-injury for boredom, to fit in, thinking it would be fun, or to avoid responsibility, whereas females are more likely to report engaging in self-injury due to feeling they need to hurt themselves, feeling unhappy or depressed (Laye-Gindhu & Schonert-Reichl, 2005). This result highlights that men may engage in behaviors for more interpersonally reinforced reasons, whereas women are more likely to self-injure due to intrapersonally reinforced reasons. The reasons for self-injury for men are more socially motivated, meaning that they endorse less affect regulation compared to women. Women, on the other hand, endorse self-injury to regulate emotional states more often than gaining or avoiding something socially.

IV. Risk Factors

Knowing the risk factors for self-injurious behaviors is vital to treatment and intervention. Through understanding the risk factors for SIB, and the interaction that exists between risk factors, it is possible to identify individuals who are most vulnerable to self-injury. Additionally, knowing what predisposes someone to a behavior opens up new avenues for treatment. The risk factors for self-injurious behavior can be broken down into two separate groups: environmental risk factors and individual risk factors (Gratz, 2003). Environmental factors are events that have happened in an individual's life that may predispose him or her to engage in self-injurious behavior (childhood trauma, abuse, etc). Individual factors refer to those factors that affect someone on a personality or emotional level (i.e., heightened emotional reactivity, bipolar disorder). The following review will explore both environmental and individual risk factors associated with SIB.

One of the most researched environmental risk factors for SIB is that of abuse. In an examination of potential risk factors by Gratz et al (2002), childhood sexual abuse was a strong predictor of self-injurious behavior. In addition, other researchers have shown that individuals with a history of childhood sexual abuse show a higher rate of self-injurious behaviors (Whitlock et al., 2006). Other types of abuse such as physical or emotional abuse have also been documented. Differences in the strength of predictors for men and women are also present. The strongest predictor for men is childhood physical abuse whereas the strongest predictor for women is sexual abuse (Gratz et al, 2002).

Another form of abuse and an environmental factor for SIB is childhood neglect. Gratz et al. (2002) examined the relationship between maternal and paternal emotional neglect as a predictor of self-injurious behavior. Results indicate that paternal and

maternal emotional neglect was not a significant predictor of self-injurious behavior for men but was for women. Thus one can hypothesize that because emotional neglect is a predictor of self-injury in women, they engage in self-injury for emotional reasons compared to men (Laye-Gindhu & Schonert-Reichl, 2005). As stated before, men are culturally and socially expected to react in certain ways. Men are not expected to exhibit emotional reactions when compared to women (Hochschild, 1979).

While an emotional risk factor is related to SIB in women, a social risk factor seems to be a predictor of SIB in men. Children who have been separated from their parents show higher rates of self-injurious behaviors. The risk factor of parental abandonment is one of the few risk factors that is significantly related to SIB in men and not in women. Men who have this separation risk factor were, for the most part, separated from their fathers (Gratz et al., 2002). Related to childhood separation is poor attachment to parents (Gratz et al., 2002). Insecure attachment to either parent was found to be a stronger predictor in females than male college students.

The environmental risk factors that exist for self-injurious behavior appear to be related and form three separate risk factor groups that increase the likelihood of SIB (Gratz, 2003). These three groups are as follows: (1) childhood physical abuse, emotional neglect, and psychological abuse (Green, 1978), (2) childhood trauma, neglect, and insecure attachment (van der Kolk, 1996), and (3) childhood sexual abuse and invalidating family environment (Linehan, 1993). In short, Gratz (2003) was able to show that possessing multiple risk factors and more specifically, a group of certain factors, increases the likelihood that an individual will engage in self-injury. For example, if an individual was the victim of physical and psychological abuse as a child, and was

emotionally neglected as a child, that individual would be at a higher risk for SIB as compared to an individual who possesses only the physical abuse, psychological abuse, or emotional neglect risk factors.

Individual risk factors are no less important than the environmental factors. Gratz and Chapman (2007) found that, for men, emotional dysregulation was associated with higher incidence of self-injury. These results indicate that men who have difficulty accepting negative emotional states, lack goal directed behavior in negative emotional states, and experience difficulty controlling impulsive behavior are more prone to self-injury. Additionally, men who lack knowledge of emotional regulation mechanisms that are perceived as effective, are not aware of emotional states or understand them fully, are more prone to self-injury. Higher levels of affect intensity/reactivity are however associated with higher levels of self-injury in females. Increased affect intensity/reactivity indicates that females who self-injure display more extreme emotional states and are more emotionally reactive compared to females who do not self-injure (Gratz, 2006).

Although individual and environmental risk factors exist separate of each other, these two factors do interact to create an entirely different set of risk factors. Gratz (2006) found an interaction between high levels of affect intensity/reactivity, childhood maltreatment, and greater emotional inexpressivity. These factors become a combined predictor of self-injurious behavior in females. Females whose emotions are intense, experienced childhood maltreatment and do not express emotions properly are at higher risk for SIB. In the case of men, childhood separation and dissociation interact to be one of the best predictors of self-injurious behavior in men (Gratz, 2002). These results

indicate that childhood separation from a parent, as well as dissociation that occurs in emotional states, puts men at a higher risk for self-injury.

V. Mental Health Perceptions

Studying the perception of mental illness is important for various reasons. First, the effect of stigma decreases the personal, social, and occupational support that those with mental illness will receive (Tam, Chan, & Cheung 2003). To illustrate, greater social support is a greater indicator of willingness to seek help (Sheffield, Fiorenza, & Sofronoff, 2004). Furthermore, in any given year, there are approximately 57.7 million individuals in the United States alone who meet diagnostic criteria for at least one mental disorder (NIMH, 2010). The fact that such a large number of individuals will experience a mental disorder in their lifetime makes the study of stigma important. In this section, the factors that influence stigma will be examined. Additionally, the general population as well as nurses' perception of mental illness will be discussed. Finally, research on the perceptions of self-injurious behavior will be discussed.

A. Factors Influencing Stigma Formation

Stigma is defined as the negative attitudes that surround a particular behavior. Understanding how stigma is formed is the first step to understanding how it affects others. Addison and Thorpe (2004) examined the effect of certain types of knowledge of mental illness on the attitudes people had toward those with mental illness. Participants consisted of 169 university students from varying disciplines (postgraduate counseling students, undergraduate psychology students, and undergraduate law students). Participants were given a demographic survey as well as a measure of mental illness

knowledge. The mental illness questionnaire (Nunnally, 1961) consisted of forty, seven-point Likert scale questions that upon statistical analysis produced ten factor scores.

Participants were then given a second measure, the Community Attitudes toward the Mentally Ill Scale (CAMI; Taylor & Dear, 1981). The CAMI is a forty-statement questionnaire in which test takers rate their agreeableness to statements on a five-point Likert scale. This test yields four factor scores: authoritarianism (mentally ill are inferior), benevolence (sympathetic view of sufferers), social restrictiveness (mentally ill are dangerous), and community mental health ideology (importance of community, and acceptance of outpatient care). Through multiple regression analysis, the results show that possessing knowledge of the purpose of avoiding morbid thoughts by the mentally ill, and knowledge pertaining to guidance and support provided to the mentally ill were predictive of particular attitudes toward mentally ill. Additionally, individuals who had prior experience with the mentally ill had more favorable attitudes toward them. These results show that prior knowledge, and specific types of knowledge have an influence on the formation of attitudes toward the mentally ill. The major limitation of this study is that the mental illness questionnaire has not been tested for reliability or validity. Although the mental illness questionnaire has yet to be tested for reliability or validity, the Community Attitudes Toward the Mentally Ill Scale provides a reliable and valid indication of the attitudes that individuals hold toward the mentally ill.

The Cronbach's alpha for the CAMI is above .50, which indicates acceptable reliability. Of all the factors, three of them, community mental health ideology ($\alpha = .88$), social restrictiveness ($\alpha = .80$), and benevolence ($\alpha = .76$) show the highest reliability. The authoritarianism ($\alpha = .68$) factor shows the lowest reliability but is still considered to be

reliable. This scale displays strong construct, external and internal validity (Taylor & Dear 1981).

B. General Psychopathology Perceptions

Knowing how the general population views psychological disorders allows us to see how to change the way in which mental illness is seen. Crisp, Gelder, Rix, Meltzer and Rowlands (2000) conducted a study to assess the opinions of the British adult population as it pertains to those with mental illness. A total of 2679 adults were sent surveys that contained questions about seven mental disorders (severe depression, panic attacks, schizophrenia, dementia, eating disorders, alcoholism and drug addiction), however only 1737 were returned. Perceptions of these seven disorders were evaluated based on eight statements about individuals with the respective disorders. The statements were that those with the mental illness are (1) a danger to others, (2) are unpredictable, (3) are hard to talk to, (4) feel different, (5) have only themselves to blame, (6) cannot pull themselves together, (7) will not improve if treated, and (8) will never recover. The responses were scored on a five -point Likert scale for each statement. Responses to the survey indicate that individuals have the most negative view of those with schizophrenia, alcoholism and drug addiction based on their answers. Roughly 70% of the respondents rate these individuals as dangerous to others and 80% said that they were unpredictable. Individuals that suffer from alcoholism and drug addiction were perceived as being personally to blame for their illness above all other disorders mentioned. Overall, individuals with any disorder were rated by participants as being difficult to talk to.

This study shows the overall perception of those with mental illness. The study is limited in the fact that the questions about perception of mental illness are limited, having

only 8 questions per mental disorder. Although this study has provided specific information of how the population views those with mental disorders, other measures of stigma and perception are available that provide more in depth information behind the meaning and the perceptions themselves. Measures such as the CAMI (Community Attitudes toward the Mentally Ill) are more comprehensive allowing for more information on specifically how someone views an individual with a mental disorder not just individually but in the community (Taylor & Dear, 1981).

In a review of the literature by Putnam (2008), an examination of attitudes toward mental illness was performed. Combining the results of sixteen studies, Putnam conducted a meta-analysis finding that those with mental illness experienced significant distress in their family and social lives. Additionally, results of the meta-analysis show that individuals who do not suffer from mental illness have less negative attitudes toward depression than toward schizophrenia and bipolar disorder. Schizophrenia had the worst negative attitudes associated with it. The resulting attitudinal differences may exist because depression is a more commonly known and encountered disorder. Additionally, depressive symptoms are less bizarre than those of schizophrenia or bipolar disorder. With these negative attitudes in mind, results showed that those with mental disorders were fearful of attack or violence from the general public and not from others with mental disorders. This review is valuable because gives us a snap shot of how others view mental disorders.

C. Perceptions of Suicidal Behavior

Although, suicide and SIB differ, the perceptions associated with both are nonetheless applicable to one another due to the physical damage that occurs within the scope of both behaviors. Selby and Calhoun (1975) find that suicidal behavior (attempting suicide and not committing suicide) is perceived by an outside observer as being caused by personality traits and characteristics. In contrast, individuals who were portrayed to have committed suicide were not judged to have done so due to personality traits and characteristics, and thus a personal attribution was avoided. Additionally, individuals who were depicted as attempters were viewed as being more mentally ill than those who were successful in taking their own lives. In another study on suicide perceptions, college students viewed the behavioral symptoms of a hypothetical friend at risk for suicide as more severe than affective symptoms (Mueller & Waas, 2002). Both suicide attempts and SIB are viewed as a more behavioral anomaly instead of an affective symptom according to the previously mentioned studies. Thus, given the behavioral similarities between suicide attempts and SIB, the miss attributions of personality factors to the cause of suicidal behavior are possibly translated to SIB.

Considering the overall perception of mental illness, the views individuals have about mental disorders may have some implications with SIB. Because SIB and suicide, especially attempts, share common factors (bodily harm), the overlap of perceptions is predictable. There is evidence that people perceive those who attempt suicide as mentally ill (Selby & Calhoun, 1975). Because people who attempt suicide and those who self-injure are similar in that they both cause harm to their bodies, the perception of mental illness may apply to both groups. Additionally, because behavioral symptoms are seen as

more severe than affective symptoms in suicide risk (Mueller & Waas, 2002), parallels can be drawn between viewing the actual behavior of injuring oneself as more severe than the emotions that underlie these behaviors.

D. Mental Health Perceptions in Nurses

Nurses are often the first professionals that someone going to a doctor's office or hospital will see. The majority of examination and information data is collected by nurses. Additionally, how these first responders react or feel about those who have a mental disorder can affect the treatment that they receive. The following studies describe how nurses perceive those who have a mental illness and describe how differing specialties affect mental illness perceptions.

Bjorkman, Angelman, and Jonsson (2008) conducted a study to examine the attitudes nurses in somatic and psychiatric settings have toward mental illness. One hundred and twenty nurses in two clinical departments were given a Level of Familiarity Questionnaire to measure how familiar they were with a mental illness (Corrigan, Green, Lundin, Kubiak, & Penn, 2001). This questionnaire was made up of 11 yes-no questions about how familiar someone was with a mental illness. If someone answered yes that he or she was familiar with a mental illness, that person then answered questions on intimacy (the degree of his or her familiarity with the illness). Intimacy was ranked on an eleven-point Likert scale with 11 being most familiar, 7 equaling medium familiarity, and 1 being little familiarity. Additionally, the Attitudes to Persons with Mental Illness questionnaire (Crisp, et al., 2000) was used.

Results indicated that nurses in somatic care as compared to those in mental health endorsed more negative attitudes toward those with schizophrenia. Somatic care

nurses in particular, indicated that they see these individuals as dangerous and unpredictable. Nurses with more professional experience, higher intimacy with mental illness, and experience working in the mental health field held more positive attitudes toward the mentally ill.

This study is valuable because it contrasts the difference between psychiatric nurses and somatic care nurses in their attitudes toward the mentally ill. Nurses who have specialized in the care of psychiatric individuals are more likely to have more positive attitudes as compared with those in somatic care. This difference in attitude may be due to nurses' exposure to those with a mental illness as well as their training. Similar to previous studies examined in this literature review, more comprehensive measures of mental illness attitudes are available to give more information that the Attitudes to Persons with Mental Illness questionnaire does not provide. The Community Attitudes Toward the Mentally Ill could be used here to assess if a nurse views the mentally ill as inferior, has sympathy toward the mentally ill, views them as dangerous and the view of the community's role in helping the mentally ill (Taylor & Dear, 1981).

The previously mentioned study by Taylor and Dear (1981) examined the attitudes that specialty nurses have toward mental illness; however, Brinn (2000) conducted a study to examine general nurses' attitudes of the mentally ill. The study's aim was to examine the reactions and expectations of sixty-four nurses regarding those with mental illness. These expectations and reactions were measured based on vignettes of patients who had unstable diabetes, as well as a mental disorder. Participants were asked to read a vignette that depicted a patient with unstable diabetes which was the control group. The other two vignettes described a patient with unstable diabetes and

paranoid schizophrenia and a patient with diabetes and senile dementia. Participants were asked to rate their expectations for the individual's behavior on four ten point likert scales. Additionally, participants were asked to rate how likely they were to experience anger, sadness, fear, disgust, nothing, wariness, relaxation and understanding toward the person in the vignette on individual ten-point Likert scales. A final question measured training or experience in each disorder.

The results of the Brinn (2000) study reveal that nurses have a fear of individuals with a mental disorder. The nurses in this study were cautious of patient behavior due to unpredictability. Only one difference arose between schizophrenia and dementia. Nurses reported feeling more sadness toward an individual with dementia as compared with sadness toward someone with schizophrenia. As with other studies on nurse's views of the mentally ill, nurses with more experience in general as well as in psychiatric nursing felt more confident and at ease when dealing with patients with a mental disorder.

The results of this study are valuable because they address general nurses' perception of mental illness. However, a more comprehensive measure of mental illness perception could be used to collect more information about a nurse's attitudes toward the mentally ill. Information that can be gathered about a nurse's attitudes toward the mentally ill can greatly aid in future interventions on changing those attitudes.

E. Perceptions of SIB

A limited amount of research has been conducted concerning the perceptions that those who do not engage in self-injurious behavior have toward individuals who engage in self-injury. Virtually no research in this area has been done. Kakhnovets, Purnell, and Young (2010) conducted two studies to examine the way in which those with no history

of self-injury view those who self-injure. Additionally, the perceptions of non-injurers were compared to the experiences of those who do self-injure. The first analysis of this study focused on why SIB begins and why it ceases. When asked what leads to self-injury, individuals who never self-injure stated that self-injurers want to escape, use self-injury as a release or that they are engaging in self-injury to gain attention. The same questions were asked to those that self-injure. Individuals who self-injure stated that their reasons for beginning were depression, to gain control and because they were stressed.

When asked why people stop self-injury, non-self-injurers indicated that individuals who self-injure have had a realization and that they are somehow not intelligent enough to realize the consequences of their actions. This finding is interesting, considering that no self-injurers in the study described a realization or even used the term when explaining why they stopped self-injuring. The most common responses for self-injurers were that growth and change occurred, they received social support and/or help.

A secondary examination was performed in which similar questions were asked; however the focus was more on the experience of those who self-injure. The results show that those who do not self-injure believe that those who self-injure do this for attention, that it is addictive, and that they have difficulty expressing their concerns to others. When comparing these attitudes to responses from those who self-injure, self-injurers cited depression, emotional catharsis/expression, distraction, pain relief and stress/anxiety as the most common reasons for engaging in self-injurious behavior. There was no mention of attention as the reason for self-injury.

The results of these two studies show that those who do not self-injure have negative attitudes of those who self-injure. Non-self-injurers see individuals engaging in

SIB as unintelligent or craving attention. Additionally, the perceptions of why these individuals engage in self-injurious behavior are different from the actual experience of those who do self-injure.

The diagnostic impressions of clinicians are also affected by the way that self-injurious behavior is viewed. Healy et al. (2010) asked students from three universities, who were enrolled in counselor preparation programs to conceptualize the presenting problem, give diagnostic impressions, highlight concerns, and discuss treatment options for a case study depicting someone who displayed self-injurious behavior. Case studies were either male or female. The most common treatment techniques endorsed by participants were person-centered/existential/humanistic as well as cognitive-behavioral/REBT. In conceptualizing the case, participants believed that the motivation for SIB was anger in men and emotions in women. When making diagnostic impressions, depression was the most commonly associated diagnosis. Additionally, a diagnosis of PTSD was made, and poor social skills were assessed. These results illustrate how the presence of self-injurious behavior can change a clinician's view of the person.

Previous research on the perceptions of SIB reveals that individuals have an inaccurate view of individuals who self-injure (Kakhnovets et al, 2010). Additionally, research regarding the perceptions nurses have regarding individuals with mental illness (Brinn 2000) suggests that nurses have negative views associated with those who suffer from mental illness. Thirdly, given that SIB has multiple associated diagnoses (Walsh & Rosen, 1988; Kress, 2003; Kerr & Muehlenkamp, 2010; and Healy et al., 2010), perceptions of general psychopathology can possibly be generalized to self-injury. The current study is seeking to examine the perceptions that nursing students have toward

Purpose and Hypothesis

Recent studies of SIB have begun focusing on the perceptions of those who self-injure by mental health trainees (Healy et al., 2010) and college students (Kakhnovets et al., 2010). The current study extends this line of research by exploring the perceptions of SIB held by those in the helping professions, specifically nurses. The purpose of this study was to explore the perceptions that nursing students have toward those who engage in self-injure. Additionally, this study sought to change those perceptions through an informative and educational presentation on self-injurious behavior.

For the purpose of this study, accuracy was defined as how well the perceptions held by nursing students match up to the facts about SIB. The perceptions that were endorsed by nursing students in this study were compared to previous research. Those perceptions that were contrary to the facts presented in the previous research into SIB were deemed to be inaccurate. Research conducted by Kakhnovets et al. (2010) provides evidence that individuals who do not engage in self-injurious behaviors have inaccurate views and perceptions of individuals who do engage in self-injury. Additionally, studies have shown that in general, nurses possess negative attitudes toward individuals who suffer from mental illness (Brinn, 2000). Finally, previous research has shown that psychopathology and SIB have common factors that allow perceptions to be generalized across behaviors and disorders (Kerr & Muehlenkamp, 2010; Kress, 2003; Walsh & Rosen, 1988). Thus, it was predicted that nursing students who endorsed less accurate perceptions of SIB would have more accurate perceptions of those with SIB after an informative/educational presentation on SIB.

As stated before, general psychopathology and SIB share many common factors (Kerr & Muehlenkamp, 2010; Kress, 2003; Walsh & Rosen, 1988). For example, SIB and suicide attempts share common behaviors (Mueller & Waas, 2002; Selby & Calhoun 1975), thus the perceptions are possibly generalized across the behaviors. Additionally, SIB has multiple diagnoses that are associated with it (Kerr & Muehlenkamp, 2010). Thus it is predicted that students' perceptions of self-injurious behavior will be positively correlated with their perceptions of general psychopathology.

Method

Participants

Participants were undergraduate nursing students from a small urban southeastern University. The opportunity to participate was presented at the beginning of a class session during the summer 2011 term. Students enrolled in the nursing program are required to participate in community service as part of their curriculum. Instructors within the nursing program accepted participation in this study as a substitute for community service hours. The current study consisted of 83 participants. The age range of participants in the study was 20 to 52 years of age, with the mean age of participants in the study being 24.8.

The sample consisted of fifteen males (18.1%) and sixty-eight females (81.9%). The racial breakdown of the sample consisted of one Asian/Asian-American participant (1.2%), thirteen Black/African-American participants (15.7%), one Hispanic/Latino participant (1.2%), and sixty-eight White/Caucasian participants (81.9%). The majority of the sample endorsed that their sexual orientation was heterosexual (96.4%). Other sexual orientations endorsed were bisexual (1.2%) and questioning (2.4%). The sample consisted of two first semester juniors (2.4%), forty-five second semester juniors (54.2%) and thirty six first semester seniors (43.4%).

Measures

The measures chosen for the proposed study were the Community Attitudes toward the Mentally Ill scale and a measure of SIB perceptions developed by Kakhnovets et al. (2010). Additional demographic information was also gathered. Following is a

description of the CAMI and the SIB surveys as well as the informative/educational presentation on SIB.

Informative/Educational Presentation on SIB (Treatment) As part of the method of the current study, an informative/educational presentation on SIB was prepared in order to change the perceptions held by nursing students participating in the study. The presentation was intended to be presented in approximately forty-five to sixty minutes. Participants were given the opportunity to ask questions to gain clarification only after the presentation had been completed. The goal of the presentation was to provide more accurate information regarding self-injury in order to inform and educate nursing students as to the true nature of the behavior. Specifically, the presentation contained ten goals. All information provided in the presentation was obtained from published articles on self-injury.

The first goal of the presentation was to provide a definition of SIB. In this section, participants were provided with the following definition for self-injury: Bodily harm that is (1) purposely self-inflicted and (2) that it is done without the intent to commit suicide (Favazza, 1996; Gratz, 2006; Gratz & Chapman, 2007; Kress, 2003). Participants were also provided with the statement that self-injury discriminates itself from behaviors that are culturally sanctioned or are part of the course of a developmental disorder (Gratz & Chapman, 2007).

The second goal was to provide participants a pictorial representation of the appearance of self-injury. Participants were shown photographs depicting various forms of self-injury. They were also provided with specific examples of self-injurious behaviors. Additionally, participants were provided with information concerning gender

differences in the methods used for self-injury. A third goal was to provide participants with information to assist in discriminating self-injury from suicide attempts.

The fourth goal of the presentation was to inform participants of the occurrence of self-injury. Specifically, information was provided as to the onset and course of self-injurious behaviors. To fulfill a fifth goal, participants were provided information regarding the function of self-injurious behavior. Again gender differences were described. A sixth goal of the presentation was to describe the risk factors that predispose an individual to engage in self injury

Next, information explaining the maintenance of self-injurious behaviors was presented. This information was intended to complete the seventh goal of the presentation. Participants were educated as to the positive and negative reinforcers involved in the maintenance of self-injury. Reinforcers were further separated into social and automatic reinforcers to provide further clarification. As an eighth goal, participants were presented with information regarding the diagnoses related to SIB.

The ninth goal of the presentation was to describe that the experience of individuals who self-injure is different from the perceived experiences according to individuals who do not engage in self injury. Participants were presented with the results of a study conducted by Kakhnovets et al. (2010) describing the discrepancy in perceived and actual experience of self-injury. The final goal of the presentation was to provide participants with practical applications. Participants were provided with suggestions that could be applied to future work with individuals who self-injure. For example, participants were provided with suggestions such as not assuming that an individual

presenting with self-injury is suicidal, and that the reasons for self-injury are of importance when treating individuals who self-injure.

CAMI (Community Attitudes toward the Mentally Ill) The CAMI was developed by Taylor and Dear (1981) and is based on two previously validated scales. These scales are the Opinions about Mental Illness scale (OMI; Cohen & Struening, 1962) and Community Mental Health Ideology scale (CMHI; Baker & Schulberg, 1967). The biggest contribution came from the OMI in which three of the four factors were derived. As stated earlier in the review, the four factors of the CAMI are authoritarianism (mentally ill are inferior), benevolence (sympathetic view of sufferers), social restrictiveness (mentally ill are dangerous), and community mental health ideology (importance of community, and acceptance of outpatient care). All four factors consist of 10 five-point likert style questions with anchors being strongly agree and strongly disagree. The first five questions contained in each subscale are worded in a more negative manner and the last five are worded in a more positive manner. This is done in order to avoid response set bias. The more positive statements are scored in reverse order with strongly disagree being scored as a one and strongly agree being a five. In total, higher scores indicate endorsement of more positive attitudes toward the mentally ill.

The Cronbach's alpha for all scales is above .50, which indicates acceptable reliability. Of all the factors, three of them, community mental health ideology ($\alpha = .88$), social restrictiveness ($\alpha = .80$), and benevolence ($\alpha = .76$) show the highest reliability. The authoritarianism ($\alpha = .68$) factor shows the lowest reliability but is still considered to be reliable. This scale displays strong construct, external and internal validity (Taylor & Dear 1981).

SIB Perceptions Questionnaire (SIBPQ) The purpose of this scale was to illicit attitudes toward those who engage in self-injurious behavior. Questions for this survey addressed specific attitudes and thoughts of individuals engaging in SIB. Additionally, this survey was created by using data gathered by Kakhnovets et al. (2010). The data was originally qualitative but has since been coded and inter-rater reliability was established between six raters. Questions on the inventory are five-point Likert scale questions with anchors at strongly disagree (SD) and strongly agree (SA). Approximately five of the statements were reverse scored in order to avoid response bias. These questions contained in the questionnaire assessed the participants' agreeableness with statements presented to them about SIB. Higher scores on the questionnaire indicate more negative views of those who self-injure.

The range of attitudes measured is expansive and includes perceptions of motivations, types of behaviors, who self-injures, and general impressions of those who self-injur. An example of statements assessing motivations would be "People want attention, so they hurt themselves." An example of the statement that assesses for types of behaviors is "Cutting is the only way people hurt themselves." Examples of statements assessing for who self-injures include "Females self-injure more than males" and "Only those who were abused as children self-injure." Finally, examples of general attitudes toward those engaging in SIB are "Self-injury is a fad and only 'emo-kids' do it" and "People who self-injure are crazy."

An analysis of the reliability was conducted on the SIBPQ to determine if the items within the measure were internally consistent. A Cronbach's alpha value was calculated using participant pretest scores. The obtained alpha determined that the SIBPQ

displays a good internal consistency ($\alpha=.74$). The validity of the SIBPQ has not been established at this time.

Demographics Information was gathered from participants' answers to questions on age, sex, race, sexual orientation and class status (i.e. freshman, sophomore, etc.).

Procedure

Participants were given a consent form outlining the purpose and risks involved in participating in the study. Additionally, those who were under the age of 19 were given parental consent forms to obtain permission. Testing of participants using the Community Attitudes Toward the Mentally Ill scale (CAMI) as well as the SIB Perceptions Questionnaire (SIBPQ) took place in three phases. At time one (T_1); all participants received both the CAMI and SIBPQ. Additionally, demographic data was collected at this time. It was after these measures have been completed that the participants were randomly assigned by means of a random number generator to either a waitlist control group or a presentation group

At time two (T_2), the waitlist group received the measures only and presentation group received the informative presentation on SIB before completing the measures for a second time. At time three (T_3), the waitlist group received the informative SIB workshop before being measured for a third time. The presentation group received only the measures at time three (T_3). During all measurements, both groups received the same measurements every time. Half of each group received the CAMI first while the other half received the SIBPQ first. This was done to counterbalance the effects of priming.

Results

The purpose of this study was to examine the perceptions that nursing students have toward those who self-injure and to change these perceptions. Before the hypotheses were tested, the distribution of the sample was examined. It was determined that all participants who scored ≤ 85 on the SIBPQ endorsed negative or less accurate perceptions on the SIBPQ. Data were screened from each testing to extract faulty data. Descriptive statistics were performed to gain a general characteristic profile of the data. A within subjects *t*-test was performed on the pretest and posttest scores for both waitlist and presentation groups. Additionally a between subjects *t*-test compared T_2 scores of waitlist to the presentation group. A bivariate correlation was performed on the data from each testing to examine the correlation of responses on the SIBPQ with subscale scores of the CAMI.

The first hypothesis of this study was that nursing students who endorsed more negative or less accurate perceptions of individuals who self-injure would no longer endorse those same perceptions following an informative/educational presentation on self-injurious behavior. This hypothesis was tested using a within subjects *t*-test to examine the difference in pre ($M=75.86$, $SD=7.13$) and posttest ($M=79.77$, $SD=9.40$) scores on the SIBPQ for presentation group (presentation group; See Table 2). The results of the within subjects *t*-test indicated that individuals in the presentation group who endorsed negative perceptions of self-injury (scoring ≤ 85 on the SIBPQ) did not endorse the same perceptions following the informative/educational presentation, $t(21)=-2.80$, $p<0.05$, thus supporting the first hypothesis. The waitlist group was given the informative/education presentation on SIB, and their pre ($M=77.05$, $SD=7.03$) and

posttest ($M=80.5$, $SD=7.93$) scores on the SIBPQ were compared using an within samples t -test (See Table 3). The results of this t -test revealed that these individuals did not endorse more accurate perceptions following the presentation, $t(21)=-2.01$, $p>0.05$, thus failing to support the hypothesis in this case.

Additional tests were conducted to examine the overall effect of the informative/educational presentation. The sample as a whole was analyzed with all pre and post test scores for nursing students endorsing negative perceptions of individuals who self-injure ($SIBPQ \leq 85$). Again, a within subjects t -test was performed to examine the pre ($M=76.34$, $SD=6.17$) and posttest ($M=79.91$, $SD=8.60$) differences on the SIBPQ (See Table 4). The results indicated that nursing students endorsed more accurate perceptions following the presentation on SIB, $t(43)=-3.84$, $p<0.01$. This aggregate result supports the hypothesis the first hypothesis of the study.

To account for the effect of time, a between subjects t -test was performed to compare the waitlist group and the presentation group posttest scores on the SIBPQ (See Table 5). The results show that the waitlist group ($M= 80.83$, $SD=8.13$) and presentation group ($M=79.54$, $SD=9.03$) posttest scores on the SIBPQ did not significantly differ, $t(46)=.521$, $p>0.05$. This indicates that the presentation was effective in changing perceptions of SIB regardless of group assignment. Additionally, this result indicates that time was not a factor in participants change in perceptions.

The second hypothesis of this study was that the results of the SIBPQ would positively be correlated with scores on the CAMI and the CAMI subscales. A bivariate correlation was performed in order to examine the correlation of SIBPQ scores and the scores of the CAMI (See Table 6). Pretest scores on the SIBPQ were positively correlated

with scores on the CAMI ($r=0.467, p<0.01$). This result shows that individuals who endorsed more negative perceptions of self-injury also endorsed more negative perceptions of general psychopathology. Additional examination of the relationship between scores on the SIBPQ and the subscale scores of the CAMI first revealed that scores on the SIBPQ were positively correlated with scores on the Authoritarianism subscale of the CAMI ($r=0.506, p<0.01$). This indicates that individuals who had a negative view of individuals who engaged in self-injury also viewed individuals who suffered from general psychopathology as inferior. Results further indicated that scores on the SIBPQ were positively correlated with scores on the Benevolence subscale of the CAMI ($r=0.328, p<0.01$). This finding indicated that individuals who endorsed negative perceptions of SIB also held an unsympathetic view toward individuals suffering from general psychopathology. Additionally, results showed that scores on the SIBPQ were positively correlated with scores on the Social Restrictiveness subscale of the CAMI ($r=0.427, p<0.01$). The correlation between Social Restrictiveness subscale of the CAMI and the SIBPQ showed that individuals who held negative perceptions of SIB also viewed individuals suffering from general psychopathology as lacking social skills. Finally, scores on the SIBPQ were positively correlated with scores on the Community Mental Health Ideology subscale of the CAMI ($r=0.299, p<0.01$). This correlation indicates that individuals who endorsed negative perceptions of SIB also endorsed being uncomfortable with having an individual who suffered from general psychopathology, or having a mental health facility in their residential area. Overall, scores on the SIBPQ and scores on the CAMI were positively correlated, thus supporting the hypothesis. Further

analysis showed that scores on the SIBPQ were positively correlated with subscale scores of the CAMI, adding more support for the present hypothesis.

Additional Results

Additional analyses were performed to determine if scores on the CAMI changed following the informative/educational presentation on SIB. These tests were performed secondary to the positive correlation found in support of the second hypothesis of this study. A within subjects *t*-test was performed on the pre ($M=125.02$, $SD=18.70$) and posttest ($M=148.05$, $SD=16.44$) scores of the CAMI for presentation group (See Table2). Results indicated that individuals who endorsed more negative views of general psychopathology did not endorse the same perceptions after the presentation on SIB, $t(41)=-10.92$, $p<0.01$. This result suggest that the presentation on SIB had some effect on not just perceptions of SIB, but perceptions of general psychopathology as well. An within subjects *t*-test was performed to test the change in CAMI total score for waitlist group from pretest ($M=125.39$, $SD=17.90$) to posttest ($M=144.39$, $SD=16.64$). The results again showed that individuals who endorsed negative perceptions of general psychopathology did not endorse the same perceptions after the presentation on SIB, $t(40)=-2.86$, $p<0.01$ (See Table3). These results showed again that the presentation on SIB had some effect on perceptions of general psychopathology.

As an exploratory analysis, individual items on the SIBPQ were examined to reveal which items were most frequently endorsed by nursing students prior to the presentation on SIB. Items that were endorsed as either Agree or Strongly Agree by \leq 50% of the participants were determined to be frequently endorsed. Prior to being exposed to the informative and educational presentation on SIB, approximately 79.5%

($n=68$) endorsed the perception that individuals who self-injure are emotional. Additionally, 50.6% ($n=42$) endorsed the perception that individuals who self-injure do so because they are depressed. The perception that those that self-injure have bad relationships with their parents was endorsed by 56.6% of participants ($n=47$). Approximately 54.2% ($n=45$) participants endorsed the perception that individuals who self-injure are a danger to themselves and others. Additionally, 61.4% ($n=51$) endorsed the perception that individuals who self-injure occasionally get out of control and kill themselves. Finally, approximately 54.2% ($n=45$) endorsed the perception that individuals who self-injure should be hospitalized.

Discussion

The current study produced an informative/educational presentation aimed at altering the perceptions that nursing students hold toward individuals who engage in self-injury. As reviewed earlier, previous research shows that nurses have negative attitudes toward individuals who suffer from psychological disorders (Bjorkman, Angelman, Jonsson, 2008; Brinn, 2000). These studies showed that nurses have more negative views of patients that suffer from psychopathology as opposed to patients who do not suffer from a disorder. Furthermore, research conducted into the perceptions of SIB has been conducted to show that college students hold incorrect or negative views of individuals who self-injure (Kakhnovets et al., 2010). The perceptions that college students hold regarding self-injury appear to be contradictory to the actual experience of their self-injuring counterparts. The current study sought to examine the misperception of not just college students, but specifically nursing students.

Results of this study showed that the development of an intervention aimed at altering perceptions of self-injury in nursing students was possible and economical. The present study showed that after only a sixty-minute presentation, nursing students changed their beliefs about individuals who self-injure. An economic intervention is valuable secondary to treatment outcomes. If it is possible to change pre-existing negative or misaligned perceptions, nursing students will be better able to provide unbiased care for individuals who self-injure. Additionally, it is shown that an effect was obtained with only a limited number of participants. The results of this study were obtained while using only forty-four participants (approximately 53% of the original sample).

The second finding of this study revealed that pretest perceptions of SIB were positively correlated with perceptions of general psychopathology. The obtained correlation suggests that SIB shares some common factors with general psychopathology. As illustrated in the literature review portion of this manuscript, SIB shares associated diagnosis including major depression, dysthymia, dissociative identity disorder, anxiety disorders, schizophrenia and eating disorders (Kress, 2003). Additionally, it was previously shown that negative perceptions are held toward suicidal behavior (Selby & Calhoun, 1975; Mueller & Waas, 2002). Suicide and SIB share similar behaviors and associated diagnosis; therefore, based on shared behaviors and associated diagnosis with suicide and SIB in general, it was hypothesized that that SIB perceptions and psychopathology perceptions would be correlated. The results of this study support this hypothesis, showing that not only can SIB perceptions be changed, but that the information provided in the presentation aimed at changing SIB perceptions appeared to be able to be generalized to other forms of psychopathology by the participants.

An ancillary exploratory analysis conducted following this study indicated that participants endorsed specific inaccurate perceptions of SIB. The most commonly endorsed misperception is that individuals who self-injure are emotional. The perception that individuals who self-injure are emotional is not entirely correct. Previous research by Nock and Prinstein (2004) suggest that individuals who self-injure not only wish to remove a negative affect, but in some cases are amotional. Individuals who self-injure do so to feel something even if it is pain or to remove a feeling of emotional emptiness or numbness.

The second perception most frequently endorsed by participants in this study was that individuals who self-injure get out of control and kill themselves. Previous research conducted by Favazza and Rosenthal (1993) indicates that individuals who self-injure and attempt to commit suicide choose to commit suicide by adopting a different means of injury than that individual has chosen for self-injury. Additionally, only 55 to 85% of individuals who self-injure go on to attempt suicide (Stanley, Winchel, Molocho, Simeon, & Stanley, 1992).

The third most frequently endorsed inaccurate perception is that those that self-injure have a bad relationship with their parents. This perception may be true for some individuals who self-injure; however, the greatest risk factor for self-injury is childhood sexual-abuse (Gratz et al., 2002; Whitlock et al., 2006). The fourth and fifth most frequently endorsed inaccurate perceptions appear to be related. Participants equally endorsed that individuals who self-injure are a danger to themselves and that individuals who self-injure should be hospitalized. The first perception is inaccurate for multiple reasons. The first is that the most common method of self-injury is skin pinching (Gratz et al., 2006). Additionally, the most common areas of injury include the wrist, leg, chest, and shoulder (Croyle & Waltz, 2007; Rosen & Heard, 1995).

The statement that individuals who self-injure should be hospitalized is inaccurate and may also present issues with the treatment of self-injury. The majority of injuries inflicted are superficial and the intent of SIB is not to commit suicide (Favazza, 1996; Kress, 2003; Gratz, 2006; Gratz & Chapman, 2007). Additionally, past research has shown that individuals who self-injure engage in self-injury in order to gain-control of a situation (Nock & Prinstein, 2004). Therefore, it may be deleterious to place and

individual in a situation in which they feel they have no control. This restriction of external control may result in the individual exerting internal control through escalation of self-injury. The final most frequently endorsed inaccurate perception is that individuals who self-injure are depressed. Individuals who self-injure are not only depressed, but are also anxious, angry, or in intense psychological pain (Nock & Prinstein, 2004).

Results of this study can be applied to multiple situations. The first is in training nursing students to adopt a more positive perception of individuals who engage in self injury. This intervention alone can be used to educate nursing students as to the true nature of SIB and allow them to provide a more complete care for patients. Additionally, this research could be refined to provide education to other individuals training to become professionals in the helping field (i.e. counselors, doctors, etc.).

The current study has limitations. The first limitation is the size of the current sample. The current study was conducted over the course of one full summer semester (consisting of approximately nine weeks), and only 83 participants were used to collect data. Of the 83 participants, only 44 were deemed to have negative attitudes of SIB. Selection was determined based on SIBPQ scores. The main limitation of this study is the low number of individuals who were able to be analyzed in order to obtain the results; however a significant result was obtained.

A second limitation of this study is the nature of the measures used. The measures used in this study were self-report surveys. As with all survey research, individuals may or may not have answered in a biased manner. Although measures were taken to ensure the anonymity of the participants, it is possible that participant were biased in their responding to the statements on both the SIBPQ and the CAMI.

A third limitation of this study is generalizability. The population used in this study consisted of nursing students. Because the participants are students, the range of generalizability is limited. There is no possibility of generalizing the results of the current study to other non-nursing college students, or to nurses in a profession. Additionally, these results are not generalizable to the general public.

The final limitation of this study is the presentation itself. The presentation was standardized as much as possible. Although steps were taken to standardize the administration of the presentation, human error may have been involved. A step that could have further been taken, and may be taken in the future would be to record the presentation on video. Video recording of the presentation would allow a standardized, error free administration.

These limitations open doors for further research based on the current results. One area of research that can be examined is the relationship between SIB perceptions and perceptions of general psychopathology. More participants could be used to maximize the obtained correlations. Additionally, more in depth analysis could be performed to examine the nature of the relationship between perceptions of SIB and general psychopathology.

A second area of research would be to apply the information gathered in this study to perceptions of other risk taking or impulsive behaviors. As stated before, the results show that participants not only endorsed less negative perceptions of SIB, but also endorsed less negative perceptions of general psychopathology after a presentation on SIB. Research linking impulsivity and SIB has been conducted in recent years (Glenn & Klonsky, 2010; Vrouva et al, 2010); thus it is feasible that based on this increased research into impulsivity and SIB, in addition to the results of the current study can be

combined to develop an intervention aimed at creating more positive perceptions of impulsive behaviors.

A tertiary area of research that is illuminated, based on the current results of the study is to conduct a similar study using actual practicing nurses. The opportunity to show that this type of intervention is effective in nurses would provide a broader spectrum in which the results of this study could be used. Additional research could also be conducted by increasing the number of participants to examine the composition of the relationship that appears to exist between the perceptions of SIB and those of general psychopathology.

In conclusion, the results of the current study provide evidence that it is possible not only to change the perceptions that nursing students hold toward SIB, but to also change the perceptions that they have toward general psychopathology. The results also demonstrate that there is a correlation between perceptions of SIB and perceptions of general psychopathology. Additionally, further research into the areas of perceptions of SIB held by practicing nurses and the nature of the relationship between SIB and general psychopathology are opened based on the results of the current study.

Table 1

Demographics of Participants

Demographics of Participants (n=83)	Percentages
Gender	
Male (n=15)	18.1%
Female (n=68)	81.9%
Race	
Asian/Asian American (n=1)	1.2%
Black/African American (n=13)	15.7%
Hispanic/Latino (n=1)	1.2%
White/Caucasian (n=68)	81.9%
Sexual Orientation	
Heterosexual (n=80)	96.4%
Homosexual (n=0)	0.0%
Bisexual (n=1)	1.2%
Questioning (n=2)	2.4%
Class	
Junior 1 st Semester (n=2)	2.4%
Junior 2 nd Semester (n=45)	54.2%
Senior (n=36)	43.4%

Table 2

SIBPQ and CAMI Means for Presentation Group

	Time		<i>t</i>	<i>df</i>
	Pre	Post		
SIBPQ Total Score	75.86 (7.13)	79.77 (9.41)	-2.00*	21
CAMI Total Score	125.02 (18.70)	148.05 (16.44)	-10.92**	41

*Note: SIBPQ ≤ 85, *p < .05, **p < .01*

Table 3

SIBPQ and CAMI Means for Waitlist Group

	Time		<i>t</i>	<i>df</i>
	Pre	Post		
SIBPQ Total Score	77.05 (7.03)	80.05 (7.93)	-2.80	21
CAMI Total Score	144.39 (16.64)	148.58 (17.50)	-2.86**	40

Note: SIBPQ ≤ 85, **p* < .05, ***p* < .01

Table 4

Aggregate Pretest Post Test SIBPQ and CAMI Means

	Time		<i>t</i>	<i>df</i>
	Pre	Post		
SIBPQ Total	76.34 (6.17)	79.91 (8.60)	-3.84**	43
CAMI Total	129.90 (17.94)	148.31 (16.87)	-12.77**	82

*Note: SIBPQ ≤ 85, *p < .05, **p < .01*

Table 5

Time Two SIBPQ Means for Presentation and Waitlist Groups

	Group		<i>t</i>	<i>df</i>
	Waitlist	Presentation		
SIBPQ Total	80.83 (8.14)	79.54 (9.03)	.521	46

*Note: SIBPQ ≤ 85, * $p < .05$, ** $p < .01$*

Table 6

Pearson Correlation Matrix among SIBPQ and CAMI Pretest Scores

	CAMI	Authoritarianism	Benevolence	Social Restrictiveness	Community Mental Health Ideology
SIBPQ (n=83)	.467**	.506**	.328**	.427**	.299**

*Note: *p<.05, **p<.01*

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INFORMED CONSENT
Concerning Participation in a Research Study
Perceptions of Nursing Students toward Those Who Self-Injure

You are invited to participate in a study of the attitudes that nursing students have toward those who engage in self-injurious behavior.

Research Purpose & Procedures:

We hope to learn what attitudes that nursing students hold toward individuals who engage in self-injurious behavior. You were selected as a possible participant because you are enrolled as a student in the nursing program at Auburn University Montgomery. If you decide to participate, the principle investigator, James Bishop, will give you two short questionnaires. These will be given at three times over a course of 4-6 weeks. During the 4-6 week time span, you will receive a seminar at either the 2 week or 4 week time. Each testing will take approximately 30-45 minutes, with the seminar lasting 45-60 minutes. The total time commitment for participation will be 3 ¼ hours.

Risks or Discomforts/Potential Benefits:

- The risks and discomforts are minimal. You may experience some psychological discomfort in answering questions about individuals harming themselves. Additionally, there is a slight risk of psychological discomfort involved with the seminar due to hearing about the nature of self-injury. If you feel the need to speak with someone, please contact the AUM Counseling Center at 334-244-3469 or visit them in Taylor Center room 319.
- Faculty in the AUM School of Nursing will provide you with community service credits that will go toward your community service requirement.
- You will gain practical knowledge about self-injury that may be applied to your professional career. We cannot promise you that you will receive any or all of these benefits.

Provisions for Confidentiality:

Any information obtained in connection with this study that can be identified with you will remain confidential and will not be disclosed for any reason. We will be collecting only your initials and the month and day of your birthday in order to match your responses for the three testing sessions. This information will be destroyed once the responses have been matched. Information you provide will be combined with the information of others in the study. Only the combined information will be commented on in the final manuscript. There will be no mention of you or your identifying information in the manuscript. Every effort will be taken to prevent any person outside of the research team from knowing that you have provided us with information or the content of that information.

Contacts for Additional Information:

Before you decide whether to accept this invitation to take part in the study, please ask any questions that might come to mind now. Later, if you have questions about the study, you can contact the investigator, James Bishop (jbishop3@aum.edu, 256-612-1678), or the faculty advisor Dr. Regina Kakhnovets (rkakhnov@aum.edu, 334-244-3539). If you have any questions about your rights as a volunteer in this research, contact Debra Tomblin, Research Compliance Manager, AUM, 334-244-3250.

Voluntary Participation & the Right to Discontinue Participation without Penalty:

If you decide to participate, you are free to withdraw your consent and to discontinue participation at any time without penalty. If you decide later to withdraw from the study, you may also withdraw any information that has been collected about you. Your decision whether to participate will not prejudice your future relations with Auburn University at Montgomery, School of Sciences, School of Nursing, or the Department of Psychology. The researcher may discontinue the study at any point. The researcher may terminate your participation from the project at any point.

We will give you a copy of this consent form to take with you.

YOU ARE MAKING A DECISION WHETHER TO PARTICIPATE. YOUR SIGNATURE INDICATES THAT YOU HAVE DECIDED TO PARTICIPATE, HAVING READ THE INFORMATION PROVIDED ABOVE.

Participant's signature & Date

Investigator's signature

IF YOU DO NOT WISH TO PARTICIPATE YOUR SIGNATURE BELOW INDICATES THAT YOU ARE CHOSING NOT TO PARTICIPATE, HAVING READ THE INFORMATION PROVIDED ABOVE.

Participant's signature & Date

Investigator's signature

Demographics Information

How do you classify your race/ethnicity?

- A. Asian/Asian American
- B. Black or African American
- C. Hispanic or Latino
- D. American Indian or Alaska Native
- E. Pacific Islander
- F. White/Caucasian
- G. Other

What is your gender?

- A. Male
- B. Female
- C. Transgender

What is your age? (Numeric value)

What is your sexual orientation?

- A. Heterosexual
- B. Gay
- C. Lesbian
- D. Bisexual
- E. Questioning

What is your current class ranking?

- A. Sophomore
- B. Junior 1st Semester
- C. Junior 2nd Semester
- D. Senior

Self-Injury Perceptions Questionnaire (Researcher Copy)

SD= Strongly Disagree D= Disagree N=Neutral A= Agree SA
=Strongly Agree

1. People who self-injure are emotional.....SA A N D SD
2. Those who self-injure are stupid.....SA A N D SD
3. Those who self-injure hate themselves..... SA A N D SD
4. Those who hurt themselves must be depressed.....SA A N D SD
5. Those that harm themselves want to commit suicide.....SA A N D SD
6. People want attention, so they hurt themselves.....SA A N D SD
7. People who harm themselves do it as a self-punishment .SA A N D SD
8. Those who self-injure have low self-esteem.....SA A N D SD
9. Those who self-injure enjoy pain.....SA A N D SD
10. People hurt themselves because they are stressed.....SA A N D SD
11. Cutting is the only way people hurt themselves.....SA A N D SD
12. Hurting oneself is a secret behavior.....SA A N D SD
13. Those who self-injure have bad relationships
with their parents.....SA A N D SD
14. Only those who were abused as children self-injure.....SA A N D SD
15. Those who self-injure are a danger to themselves
and others.....SA A N D SD
16. Those who self-injure have poor social skills.....SA A N D SD
17. Females self-injure more than males.....SA A N D SD

18. Those who self-injure only engage in the behavior
once then stop.....SA A N D SD
19. Those who self-injure do it to block out
painful memories.....SA A N D SD
20. Those who self-injure do it because they are
picked on at school.....SA A N D SD
21. People who self-injure sometimes get out
of control and kill themselves.....SA A N D SD
22. People who self-injure are crazy.....SA A N D SD
23. Self-injury is a fad and only “emo-kids” do it.....SA A N D SD
24. Those who self-injure do it because
they are angry at themselves.....SA A N D SD
25. Those that self-injure are angry at others.....SA A N D SD
26. Those who self-injure feel a release
after hurting themselves.....SA A N D SD
27. Those that self-injure should be hospitalized.....SA A N D SD

Community Attitudes toward the Mentally Ill (CAMI)

SA= Strongly Agree A= Agree N= Neutral D= Disagree SD= Strongly Disagree

1. One of the main causes of mental illness is a
lack of self-discipline and will power.....SA A N D SD
2. The best way to handle the mentally ill is to keep
them behind locked doors.....SA A N D SD
3. There is something about the mentally ill that makes
it easy to tell them from normal people.....SA A N D SD
4. As soon as a person shows signs of mental disturbance,
he should be hospitalized.....SA A N D SD
5. Mental patients need the same kind of control and
discipline as a young child.....SA A N D SD
6. Mental illness is an illness like any other.....SA A N D SD
7. The mentally ill should be treated as outcasts of society.....SA A N D SD
8. Less emphasis should be placed on protecting the
public from the mentally ill.....SA A N D SD
9. Mental hospitals are an outdated means of
treating the mentally ill.....SA A N D SD
10. Virtually anyone can become mentally ill.....SA A N D SD
11. The mentally ill have for too long been the
subject of ridicule.....SA A N D SD
12. More tax money should be spent on the care
and treatment of the mentally ill.....SA A N D SD
13. We need to adopt a far more tolerant attitude

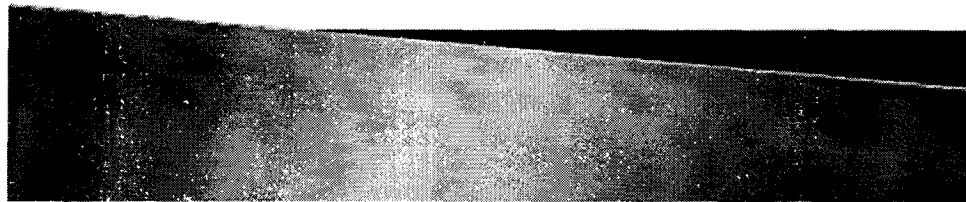
- toward the mentally ill in our society.....SA A N D SD
14. Our mental hospitals seem more like prisons
than like places where the mentally ill can be cared for.....SA A N D SD
15. We have a responsibility to provide the best
possible care for the mentally ill.....SA A N D SD
16. The mentally ill don't deserve our sympathy.....SA A N D SD
17. The mentally ill are a burden on society.....SA A N D SD
18. Increased spending on mental health services
is a waste of tax dollars.....SA A N D SD
19. There are sufficient existing services for the mentally ill.....SA A N D SD
20. It is best to avoid anyone who has mental problems.....SA A N D SD
21. The mentally ill should not be given any responsibility.....SA A N D SD
22. The mentally ill should be isolated from the
rest of the community.....SA A N D SD
23. A woman would be foolish to marry a man who has suffered from mental
illness, even though he seems fully recovered.....SA A N D SD
24. I would not want to live next door to someone
who has been mentally ill.....SA A N D SD
25. Anyone with a history of mental problems should
be excluded from taking public office.....SA A N D SD
26. The mentally ill should be denied their individual rights.....SA A N D SD

27. Mental patients should be encouraged to assume
the responsibilities of normal life.....SA A N D SD
28. No one has the right to exclude the mentally ill
from their neighborhood.....SA A N D SD
29. The mentally ill are far less of a danger than
most people suppose.....SA A N D SD
30. Most women who were once patients in a
mental hospital can be trusted as babysitters.....SA A N D SD
31. Residents should accept the location of mental health facilities in their
neighborhood to serve the needs of the local community.....SA A N D SD
32. The best therapy for many mental patients is to be
part of a normal community.....SA A N D SD
33. As far as possible, mental health services should be provided
through community based facilities.....SA A N D SD
34. Locating mental health services in residential
neighborhoods does not endanger local residents.....SA A N D SD
35. Residents have nothing to fear from people coming
into their neighborhood to obtain mental health services.....SA A N D SD
36. Mental health facilities should be kept out of
residential neighborhoods.....SA A N D SD
37. Local residents have good reason to resist the location
of mental health services in their neighborhood.....SA A N D SD

38. Mental health patients living within residential neighborhoods might
be good therapy but the risks to the residents are too great...SA A N D SD
39. It is frightening to think of people with mental problems
living in residential neighborhoods.....SA A N D SD
40. Locating mental health facilities in a residential area
downgrades the neighborhood.....SA A N D SD

Self-Injurious Behavior

Andy Bishop B.S.
Auburn University Montgomery
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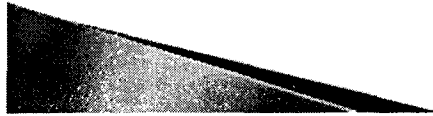
Goals

- › What is SIB?
- › What does SIB look like?
- › Difference in SIB and suicide attempts.
- › Who self-injures?
- › What function does SIB serve?
- › Why do people self-injure?
- › Risk factors
- › How is it maintained?
- › Stereotype vs. reality
- › Practical applications



What is SIB?

- › Bodily harm that is (1) purposely self-inflicted and (2) that it is done without the intent to commit suicide (Kress, 2003; Favazza, 1996; Gratz, 2005; Gratz & Chapman, 2007).
- › This definition discriminates this behavior from other self injurious behaviors that are engaged in for cultural practices or in the course of a developmental disorder (Gratz & Chapman, 2007).



Gender Differences

- › Most information available on women
- › Comparable rates for college-aged men and **WOMEN** (Gratz et al., 2002; Briere & Cil, 1998)



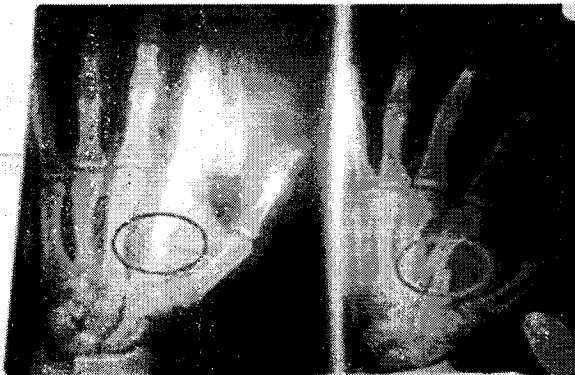
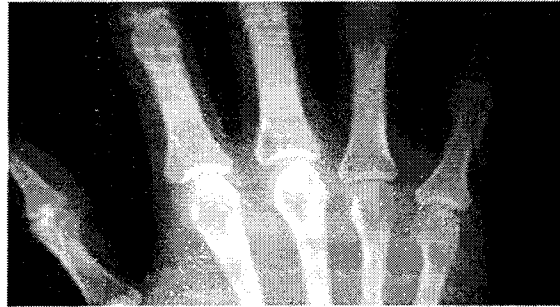
What does SIB Look Like?

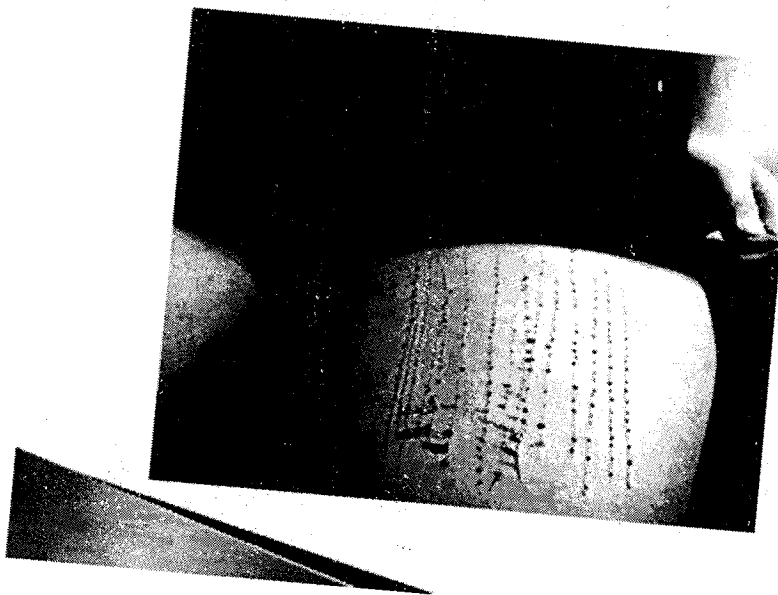
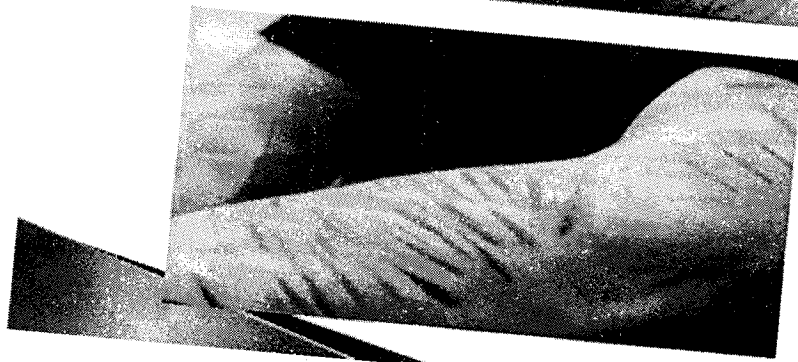
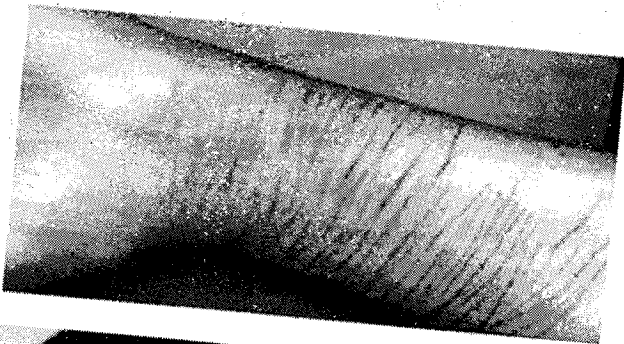
- › Behaviors range from nail biting to cutting of the skin.
- › Most common location for injury is leg, chest and shoulder
- › Most common form is skin pinching (Gratz, et al, 2006)

Gender Diff.

- › Gender differences in methods used:
 - Females
 - 2.3x more likely to scratch or pinch
 - 2.4x more likely to cut
 - 2.3x more likely to injure wrists
 - 2.4x more likely to injure thighs
 - Males
 - 2.8x more likely to punch an object
 - 1.8x more likely to injure hands (Whitlock et al., 2006)

What does it look like?

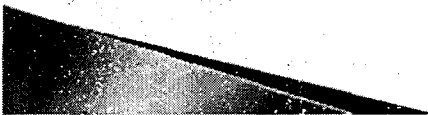






SIB vs. Suicide

- Both involve bodily harm
- SIB usually isn't severe enough to be life threatening
- Methods differ
- Motivations are different
 - For SIB it is to live a more distress free life
 - For suicide it is remove oneself from life (Muehlenkamp & Gutierrez, 2004)



Occurrence

- ▶ High School Students
 - 14% at least once
- ▶ College Students
 - 35% lifetime (Gratz, 2001)
- ▶ Age of Onset
 - Around age 14
 - Course is almost a decade



Function

- ▶ Believed to
 1. Decrease dissociative symptoms
 2. Reduce stress/tension
 3. Block out memories
 4. Show need for intervention
 5. Safety and self-preservation
 6. Express / release distress
 7. Reduce Anger
 8. Punishment
 9. Hurt oneself in absence of others
- (Briere & Gill, 1995)



Gender Diff.

- › Females more likely to engage:
 - Need to harm oneself
 - Unhappy or depressed

 - › Males:
 - Bored
 - Fit in
 - Thought it would be fun
 - Avoid responsibility
- (Laye-Gindhu & Schonert-Reichl, 2005)

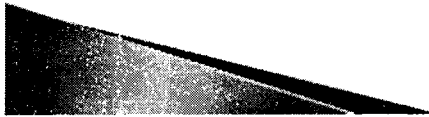
Risk Factors

- › Environmental
 - Childhood Sexual Abuse (Cratz et al., 2002)
 - Childhood Neglect
 - Childhood separation from parents
 - Insecure attachment

Risk Factors

• Three groupings (Graz, 2003)

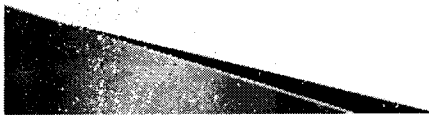
- Childhood physical abuse, emotional neglect and psychological abuse (Green, 1978).
- Childhood trauma, neglect and insecure attachment (van der Kolk, 1996).
- Childhood sexual abuse and invalidating family environment (Linehan, 1993)



Risk Factors

• Individual (Graz & Chapman, 2007)

- Men
 - Difficulty accepting negative emotional states
 - Lack goal directed behavior in these states
 - Low impulse control
 - Lack knowledge of effective emotional regulation mechanisms
 - Unaware of emotional states
 - Do not fully understand emotional states
- Women
 - High affect intensity reactivity



Automatic Reinforcement

- › Both Positive and Negatively Reinforcing
 - Positive
 - Self-Punishment (Nock & Prinstein, 2004)
 - Expression (Suyemotto, 1998)
 - Negative
 - Removing unwanted emotions, thoughts
 - Relieving anxiety, sadness, etc.
(Nock, Prinstein, & Sterba, 2010)



Social Reinforcement

- › Again positive and negative reinforcing
 - Positively – social gratification
 - Negative – escaping something
(Nock & Prinstein, 2004)



Diagnosis Related to SIB

- › Healy et al. (2010)

- Depression
- Anxiety



Associated Diagnosis

- › Borderline Personality Disorder (Walsh & Rosen, 1983)
- › Kress (2003)
 - Depression
 - Dystymia
 - DID
 - Anxiety Disorders
 - Schizophrenia
 - Eating Disorders



Assoc. Diagnosis

- Kerr and Muehlenkamp (2010)
 - Features of psychopathology
 - Depression
 - Anxiety
 - Borderline features
 - Psychotic features
 - Suicidality



Experience Vs. Stereotype

- Kakhnovets, Purnell, and Young (2010)
- Study 1 (reasons for starting)

Non SIB	SIB
-Escape -Attention	-Depression -Stress



Experiences Vs. Stereotype

- › Study 1 Cont. (Why do people stop?)

Non SIB	SIB
- Had a realization - Afraid of getting worse	- Growth



Recap

- › SIB- Deliberate injury to oneself without the intent of suicide
- › Behaviors range from scratching to broken bones
- › We've seen what it looks like
- › Occurs around age 14



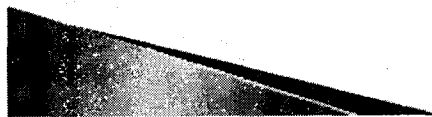
Recap

- › Function to decrease negative mood states
- › Both environmental and personal risk factors
- › Maintained through reinforcement
- › Associated with anxiety and depressive disorders
- › Big difference in actual experience of SIB vs. Stereotype



Practical Applications

- › Usually not a suicide attempt.
- › Behavior is done in secret
- › Know that that SIB has a strong psychological underpinning.
- › Pay attention to why individuals harm.
- › Offer options but do not force them.



Practical Applications

- › Alternative forms of coping
- › Empathy
- › Most of all, stay calm

