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Depressed Native Americans and Suicidal Ideation Contagion

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DEPRESSED NATIVE AMERICANS AND SUICIDAL IDEATION CONTAGION

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This dissertation meets the standards for appearance, conforms to the style and format requirements of the Graduate School of the University of North Dakota, and is hereby approved.

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ABSTRACT

Screening for suicide ideation has been widely established as an effective strategy to identify and treat depression symptomology and suicidality (ideation, attempts, and completions), particularly within vulnerable populations such as Native Americans, where the rates of these problems exceed that of other ethnic minority groups. Findings from global research has suggested that symptoms of depression increase vulnerability to self-harm among individuals exposed to the suicide attempts of others within their family or social network. Group membership appears to increase the likelihood that the individual will acquire both the adaptive and maladaptive beliefs and proclivities of the desired group.

The risk of suicidal ideation appears to increase as well among depressed individuals who often show a sense of dysphoria, pessimism, and hopelessness regarding their future prospects. The current study examined depression, self-harm, suicidality, and traumatic exposure experiences among a sample of 203 Native American participants from 42 different tribal affiliations. The present results indicated that depression within this Native American sample provided a strong predictor of self-injury. Increased risk of self-injury among these participants was also found with the combination or interaction of depression and exposure to suicidality exhibited by others. The risk was especially elevated when the participant was moderately to severely depressed and the exposure

involved a completed suicide. Descriptive statistics and a range of significant relationships between these predictor and outcome variables are also examined. Suggestions are provided for future research in this important area of suicide prevention among Native Americans.

CHAPTER I

INTRODUCTION

Depressed Native Americans and Suicidal Ideation Contagion

The Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) identified different variations of mood disturbance with major depression being the most prevalent (American Psychological Association; APA, 2000). Other types of mood disorders are dysthymia, cyclothymia, bipolar disorder, mood disorder due to a general medical condition, substance-induced mood disorder, and a number of mood disorders that are not otherwise specified. Specifiers are provided to distinguish current mood episode qualities (e.g., melancholic, atypical, rapid cycling, recurrent, etc.) and onset circumstances (e.g., postpartum, season affective, etc.). Mood disorders are also classified based on their severity (e.g., mild, moderate, severe with or without psychotic features, etc.) and remission status (e.g., partial, full).

Major depression is the most common mood disorder and a diagnosis requires sustained symptoms for at least two weeks that include either depressed mood (nearly every day) or loss of interest or pleasure in activities with a combination of other qualities such as significant weight or appetite change (gain or loss), sleep disturbance (hypersomnia or insomnia), psychomotor retardation or agitation, fatigue, concentration difficulties, feelings of worthlessness or guilt, and/or recurrent suicidal ideation. A

diagnosis of major depression must be associated with clinically significant distress and/or psychosocial impairment.

Little research is available about the mental health of Native Americans and Alaskan Natives (Manson, 2001). It is estimated that approximately 21% of the total Native American and Alaskan Native population is affected by mental illness, mental dysfunction, or self-harming behaviors (Hasin, Goodwin, Stinson, & Grant, 2005; Duran, Sanders, Skipper, et al., 2004; Roberts & Yeager, 2004). A study conducted by Indian Health Service (IHS) using the Primary Care Evaluation of Mental Disorders found that 18% of the patients had a psychological diagnosis (Parker et al., 1997). In another study Native American women who adhered to strict gender roles were more likely to have depressive symptomology, higher role conflict, lower self-esteem, and lower life satisfaction than women who did not live according to those cultural expectancies (Napholz, 1995). Substance dependence also contributed to higher rates of anxiety and a combination of anxiety and depression among Native American/Alaskan Native women (Hasin, Goodwin, Stinson, et al., 2005; Duran, Sanders, Skipper, et al., 2004). It is estimated that Native American depression rates (44% in the last 12 months; IHS, 2009) are considerably higher than the U.S. mainstream population's (5.4% in the last 12 months; Pratt & Brody, 2008) risk of depression. Since there is a paucity of research on Native American depression rates, current rates of depression in Native Americans were unavailable.

Native American youth are also at increased risk for more serious psychological problems than other ethnic minority groups, including, post-traumatic stress disorder (PTSD), depression, suicide, anxiety, substance abuse, adjustment disorder, behavior

disorder, and issues related to their cultural identity (Hasin, et al., 2005). A national study of 14,000 Native American youth conducted by the University of Minnesota found that 18.3% experience constant sadness, 11.4% experience hopelessness, and 6.6% worry about losing their mind (University of Minnesota Adolescent Health Program, 1992). Behavioral and emotional problems among Native American youth are likely to be worse than other U.S. youth who are also faced with dysfunctional families, alcoholism, abuse, violence, neglect, and loss of social supports (Morris, Morris, and Crowley, 1999). Morris, Morris & Crowley (1999) reported that children in general were likely to be affected by psychological problems because they tend to internalize their problems. Female children appear to be the most at risk (Plante, 2007). When individuals internalize their symptoms, it is likely they have excessive emotional distress, which can result in anxiety, depression, social withdrawal, and self-injury (Plante, 2007; Morris, Morris, & Crowley, 1999).

Research has established that Native Americans are more likely than other ethnicities to become depressed (Strine, et al., 2008; Olson & Wahab, 2006; Tirado, 2006). This added risk of depression appears to manifest itself in increased suicidality as well (Taylor-Gibbs et al., 2005). Previous research suggests an association between suicidal ideation and a variety of psychosocial adversities such as stressful life events, lack of social support, and family dysfunction (King, et al., 2001). Other studies have indicated that there are associations between suicidality and problem behaviors such as running away, offensive behavior, recklessness, weapon-carrying, fighting, sexual activity, and substance use (King, et al., 2001). Research has found that depression is predictive of later risky behaviors such as attempting suicide in early adulthood,

especially if they have previously engaged in some type of nonconformity or socially deviant behavior (Bolognini et al., 2003; Christensen, 1998; Parkriev, Shlik, & Vasar, 2001). Nonconformists are often predisposed to depression because they have a tendency to act in an impulsive manner such as drug and alcohol abuse (Strine, et al., 2008; May et al., 2002; Taylor-Gibbs et al., 2005). In 2001, IHS reported that alcohol dependence of American Indians/Alaskan Natives was seven times higher than the national average (IHS, 2001).

In addition to mental health disorders, research suggested that environmental factors played a significant role in increasing risk for mental and physical health problems which included suicidal ideation (Olson & Wahab, 2006; Indian Health Service; IHS, 2001). Native Americans have been shown, historically and currently, to endure very difficult lives. For instance, it is not unlikely for Native Americans to grow up and live in poverty and have limited job and educational opportunities (Olson & Wahab, 2006; Range et al., 1999; Thresher, 2005; Tirado, 2006; Young, 1990). Olson and Wahab (2006) reported that poor health usually accompanies low socioeconomic status for Native Americans, which can contribute to suicidal ideation as well. Samaan (2000) reported that economic hardship negatively affected social and emotional development among children and adults during stressful times. In addition, only 65% of Native Americans, as opposed to 75% in the general population, complete high school (Olson & Wahab, 2006). Native Americans have one of the highest unemployment rates in the Nation (13.6%) with the national average being on 9.6% (US Census, 2005). These collective social stressors can contribute to feelings of hopelessness, depression, and

substance abuse (Taylor-Gibbs et al., 2005; Range et al., 1999) which all increase the risk of suicidal ideation.

Native Americans also experience the highest rates of violent acts of victimization than any other race in the United States. Native Americans who die by alcohol related deaths are 770% higher, completed suicides rates 190% higher, and homicide rates 210% greater than all other races in the United States (Indian Health Service, 2003). There are significant relationships among persecution and depression, post-traumatic stress disorder symptomology, and suicidology among women from the National Crime Victimization Survey (NCVS; Tjaden & Thoennes, 1998). There is also evidence that multiple incidents of victimization affect women's health increasing their risk for health problems, such as substance abuse and mental health problems (Bohn, 2003).

Furthermore, the San Diego ACE study found that increased exposure to distressing situations could increase the risk for substance abuse, depression, suicide attempts, especially if the events were endured in childhood (Felitti et al, 1998). According to Bohn (2003), there have been associations made between child abuse and mental health problems of Native Americans and non-Native samples. In fact, suicidal ideation was common among individuals who were both physically and sexually abused in childhood. The victimization rate of Native American children (2%) is higher than children in the mainstream population (1%) and they are at a 2.5 times greater risk of experiencing trauma than their non-Native peers (BigFoot, 2008). Consequently, depression is experienced by almost everyone who has ever been abused (Bohn, 2003). Although substance abuse, suicidal ideation, homicide, and depression are more common

among sexual and/or physically abused individuals (Bohn, 2003), there is little research done examining the effects of victimization on Native American victims.

Suicidal Ideation

Most suicide attempts (90%) appear to be committed by people suffering from untreated psychological disturbance of one form or another (Moscicki, 2001). According to the DSM-IV-TR, when individuals are depressed, they frequently have thoughts of death, suicidal ideation, or attempt suicide (APA, 2000). Less severely depressed suicidal individuals may report recurrent and transient thoughts of suicide. More strongly effected individuals develop a specific plan to inflict harm or die by suicide (APA, 2000).

In addition, Non-Suicidal Self-Injury (NSSI) is a deliberate act without suicidal intent that results in tissue damage and is usually carried out to reduce emotional distress (Walsh, 2006). NSSI is also referred to as suicidal ideation, self-injury, deliberate self-harm, and self-harm, which will be used interchangeably throughout this study. In 1983, the estimated rate of self-injury was said to be 400 per 100,000 in the general United States population (Pattison & Kahan, 1983) and in the late 1990s, it was 1,000 per 100,000 in the general U.S. population (Favazza, 1998). With these estimates, the rate of self-harm increased 150% in 20 years. Current research reports lifetime prevalence rates of self-harming behaviors are 15-20% (Heath, Ross, Toste, Charlesbois, & Nedecheva, 2009) among adults in the mainstream population, while other studies found lifetime prevalence rates as high as 39% (Gratz, Conrad & Roemer, 2002; Lloyd-Richardson, Perrine, Dierker & Kelley, 2007) in the mainstream population. Further research in this area indicates that two to three million Americans self-injure and the majority are women between the ages of 13 and 30 years old (Wilson, 2006). According to Fox and Hawton

(2004), women are three to four times more likely to be self-injuring than males (Plante, 2007).

Precursors to dying by suicide are suicidal ideation, which include plans and attempts (Prinstein, Nock, Simon, et al., 2008). Research indicates that between 40 and 100 times as many adolescents have engaged in self-injury than the individuals who have intentionally ended their own lives (Fox & Hawton, 2004). In the past few years, there has been an increase among adolescents that engage in non-suicidal self-injury (Muehlenkamp, Hoff, Licht, Azure, & Hasenzhl, 2008; Prinstein, et al., 2008). In 2006, the Centers for Disease Control and Prevention (CDC) reported that suicide is the second leading cause of adolescent death and is still on the rise (1.3 to 8.6 per 100,000; 2006). Rates of NSSI are exceedingly high in adolescence and young adults (Glenn & Klonsky, 2009). Approximately 8% of children between the ages of 12-14 (Hilt, Nock, Lloyd-Richardson, & Prinstein, 2008) and 14-15% of adolescents (Laye-Gindhu & Schonert-Reichl, 2005; Ross & Heath, 2002) report self-injuring themselves at least once in their lifetime. Research indicates that the prevalence rate among college students ranges from 14 to 35 percent (Gratz 2001; Whitlock et al. 2007), which partially agrees with other research studies, that teenagers are more likely to engage in deliberate self-harm than young adults. In cases that result in receiving medical attention, poisoning was the most common method, which typically occurs by overdosing on pills.

Walsh (2006) reported that an overwhelming amount of people report engaging in self-injury to relieve painful feelings. Self-injurers report that they hurt themselves to relieve either too much or too little emotion (Glenn & Klonsky, 2009). Most self-injurers engage in such behaviors to "release" their excessive amounts of emotion and the

remaining self-injurers do so because they do not have enough emotion or because of states of dissociation. Walsh (2006) also reported that individuals who have too much emotional distress likely identify anger, shame, anxiety, tension, panic, sadness, frustration, and hatred as feelings that lead them to self-injury. In contrast, self-injurers who do not feel like they have enough emotional support, report feeling empty, dead, robotic, or zombie-like. In fact, self-injurers who feel empty or dead may use self-injury as reinforcement that they are not dead when they see the blood as a result of their self-harm (Walsh, 2006).

Across studies (Glenn & Klonsky, 2009; Simeon & Hollander, 2001; Conterio & Lader, 1998; Alderman, 1997; Walsh & Rosen, 1988; Favazza, 1987), the most common methods of self-injury include cutting, scratching, carving, excoriation of wounds, self-hitting, self-burning, head banging, self-inflicted tattoos, self-biting, scraping, ingesting scrap material, inserting objects, self-inflicted piercing, and hair pulling. The most common places individuals cut themselves are on their arm, wrists, and legs. Seventy percent (Walsh, 2006) to 78% (Favazza & Conterio, 1988) of self-injurers use more than one method of self-injury. Research suggests that an idividual's choice of method of self-injury is determined on the present circumstance rather than preference. For example, a self-injuring in-patient may not have access to a razor for cutting and resort to another form of self-injury such as head banging (Walsh, 2006).

As mentioned above, females are more likely to self-injure than males; and those females are also more likely to have been sexually or physically abused (Plante, 2007). An explanation as to why females are at increased risk to self-injure is because males are more likely to act out their problems through aggression, risk-taking behaviors, alcohol

and substance abuse, or rebelliousness to authority. Females on the other hand are more likely to internalize their behaviors, which can manifest into depression, anxiety, withdrawal, victimization, and self-harming behaviors. Research indicates that the most common casual factor related to NSSI is a history of sexual abuse and trauma. Perpetrators of physical and sexual abuse do not realize the lifelong damage they inflict on their victims. These individuals are likely to have emotion regulation difficulties, self-image problems, and troubled relationships. When abuse occurs during childhood, it is likely these children feel guilty or frightened to report the abuse and aim to repress their memories. Plante (2007) reports that when the memories are repressed, the likelihood of being affected by depression, sense of powerlessness, low self-esteem, body-image issues, and self-destructive behaviors increases.

According to Favazza (1998), it is estimated that 40 to 65% of self-injurers have been sexually abused. Research indicates that it is likely, but not necessary for individuals who self injure to have a history or are currently a victim of abuse, especially sexual and/or physical abuse (Walsh, 2006; Wong, et al., 2005; Kirkcaldy, Eysenck, Siefen, 2004). Bodily hatred and alienation are also characteristics that may present when individuals have been abused. They may come to view their bodies as contaminated, dirty, and broken. It is also not uncommon for individuals who have been abused to self-injure and be diagnosed with post-traumatic stress disorder (PTSD), depression, anxiety, panic attacks, and/or borderline personality disorder (Walsh, 2006). In 2000, the United States Surgeon General reported that children and adolescence with intense emotional distress including depression, anger, anxiety, hopelessness, and worthlessness are at increased risk for suicidal ideation.

In addition, individuals who have eating disorders such as anorexia nervosa or bulimia nervosa are also more likely to engage in NSSI. Research indicates that individuals labeled as having borderline personality disorder are also at increased risk to exhibit self-injurious behavior (Plante, 2007).

Simeon and Favazza (2001) propose a theory to classify self-injury into four different categories, which they labeled as stereotypic, major, compulsive, and impulsive. Each category encompasses tissue damage, biological correlates, rates and patterns of behavior, and diagnostic categories associated with the behavior. That first category is the stereotypic self-injurer, which occurs when head banging, self-hitting, biting, picking, and scratching are engaged by individuals with mental retardation, a developmental disability, or autism (Simeon & Favazza, 2001).

The second category involves major self-injurers, which occurs when self-injury is associated with psychotic symptomology and there is substantial damage. Major self-injury tends to be more dangerous and encompasses more lethal behaviors than the other categories, such as self-enucleation, auto-castration, and self-amputation (McVey-Noble, Khemlani-Patel, & Neziroglu, 2006; Simeon & Favazza, 2001).

Another major category of self-injury consists of the compulsive type. Compulsive self-injury refers to behaviors such as hair pulling, skin picking, and nail biting. Trichtillomania and stereotypic movement disorders are typical of this category of self-injury. According to Simeon and Favazza (2001), these behaviors tend to occur several times per day and can occur routinely. This category is strongly associated with obsessive-compulsive disorder and other obsessive-compulsive related disorders (Christenson, MacKenzie, & Mitchell, 1991).

Individuals who deliberately cut their skin, burn their skin, and hit themselves are classified as impulsive self-injurers (Simeon & Favazza, 2001). These individuals are associated with borderline personality disorder, antisocial personality disorder, post-traumatic stress disorder (PTSD), and eating disorders.

Further classification of this subtype breaks down into the repetitive type and the episodic type. Repetitive type of self-injury includes individuals who self-injure in an organized and preoccupied fashion, which can evolve into an addictive pattern and incorporated into the individual's identity. These individuals will use self-injury as an automatic response to disturbing internal and external stimuli. Repetitive self-injury typically begins in adolescence and can persist for years (Simeon & Favazza, 2001). The episodic self-injurer can be characterized as someone who self harms themselves occasionally. Episodic self-injurers do not boast about this behavior, nor do they identify as a self-injurer or cutter. Rather, they harm themselves to feel better and forget about distressing thoughts and emotions and to regain a sense of control. Episodic self-injurers only differ from the repetitive self-injurer in their frequency of their self-harming behaviors. Simeon and Favazza (2001) reported self-injurers could be both compulsive and impulsive concurrently.

Self-injury can also be broken down into two more categories; dependent on the time it takes for the self-injurer to feel the harm, either immediately or gradually. Immediate self-injury includes behaviors that cause immediate tissue damage and is typically done for a definite reason (Walsh, 2006). These individuals deliberately harm themselves and the harm or pain is instant. Gradual self-injury refers to behavior that occurs when the harm inflicted is gradual rather than immediate. Walsh (2006)

mentioned that common examples of this form of self-injury are substance abuse and eating disorders that affect individuals' health; however, individuals engaging in this behavior deny they intentionally harm themselves.

Walsh (2006) reported that besides breaking self-injury down into immediate and gradual self-injury, it can also be examined while focusing on the level of lethality of the self-injury. Starting with the least lethal intentions, an immediate form of self-injury with low lethality would encompass multiple episodes of common self-injury (i.e. cutting). Gradual self-injury with low lethality includes multiple episodes of chronic substance abuse, bulimia, and discontinuation of psychotropic medications.

There are also individuals who immediately and gradually self-injure with a medium level of lethality and either with single or multiple episodes. An example of a single immediate episode with medium lethality is when individuals engage in atypical or major self-injury (i.e. burning skin with acid or cleaners). Acute drunkenness and sexual risk-taking are examples of single episodes, gradual self-injurer with moderately dangerous intentions (Walsh, 2006; Pattison & Kahan, 1983). There are also self-injurers with moderately or exceedingly dangerous intentions. Inexperienced and gradual high lethality self-injurers exhibit situational risk-taking behaviors (walking alone at night in a dangerous area of a city, getting into a car with strangers, or hitchhiking alone). Experienced gradual self-injurers with medium to high lethality intentions are likely to perform high-risk stunts or displayed symptoms of anorexia for quite some time. Individuals who have multiple episodes of immediate medium to high lethality are likely to have repeatedly attempted suicide. Individuals with medium to high lethality and who

have only single, immediate episodes are individuals who have died by suicide (Walsh, 2006; Pattison & Kahan, 1983).

As mentioned previously, risk-taking is a danger for gradual self-injurers (Wong, \et al., 2005), which is further assessed as situational, physical, and/or sexual. When behaviors are not particularly risky (going off with strangers), they are classified as situational risk-taking (Walsh, 2006). Physical risk taking (walking into high-speed traffic, sitting on the edge of a rooftop, etc.) is prominent behavior in many self-injurers. Many of the individuals engage in physical risk-taking because they like the thrill of it. Sexual risk taking includes having multiple partners within a short amount of time or having unprotected sex with strangers. Sexual risk takers are also unlikely to hesitate to have unprotected sex with individuals who have sexually transmitted diseases or are intravenous drug users. Having sex while under the influence of a substance and not being aware of one's actions classifies one as a sexually deviant self-injurer (Walsh, 2006).

Regardless of immediate or gradual self-injury, it occurs solitary or concurrently. Walsh (1987) reported that self-injury was found to be associated more with gradual self-harm. Research indicated the greatest predictor (Walsh, 1987) of gradual self-injury was the presence of an eating disorder (Favaro & Santonastaso, 1998; Parkin & Eagles, 1993; & Mitchell, Boutacoff, & Hatsukami, 1986).

Wong and colleagues (2005) have documented that individuals who were depressed were more likely to be influenced and engage in suicidal acts when they were aware of another peer who self-injured or attempted suicide. Curiously, these same researchers have found evidence that exposure to a suicidal attempt by a friend who was

not close to completion (nor lethal) seemed to have less impact on the probability of suicidal ideations by the observer than if the attempt was more serious in lethality. Individuals may engage in self-injury, such as for environmental or direct media influences, peer group motivation, or internal psychological factors, for many reasons. Environmental factors that may exasperate a situation and lead to self-injury could include stress from school or work, parents' divorce, or losing a loved one and so on. Direct media influential factors could include internet chat rooms directed to the topic of self-injury, people in the media (actresses) report self-injuring behaviors, or viewing websites that focus on demonstrating or giving directions on how to self-injure. Peer group cohesion can strengthen by behaviors that adults disapprove of, which endorses that adolescent peer group factors can influence self-injurious behaviors. The major enforcers of self-injury are the internal factors, because it has the potential to reduce tension and provides a sense of control and empowerment (Walsh, 2006).

Bandura's Social Learning Theory and Social Contagion

Bandura's social learning theory suggested that behaviors such as self-injury can be learned through direct and indirect experiences (i.e. modeling) within the environment (Muehlenkamp, et al., 2008). Suicidal behavior research hypothesizes that individuals who are exposed to suicide attempts directly (family member) or indirectly (non-familial members) are more likely to be suicidal or have attempted suicide themselves. Therefore, there is evidence that direct and indirect exposures to self-harming behaviors increase individuals chances of also engaging in that type of destructive behavior (Muehlenkamp, et al., 2008). Walsh (2006) also supports that being exposed to self-injurious behaviors increases others chances of also endorsing self-harming behaviors.

Social Identity Theory

Another theory that supports the role of outside individuals having an influence on one's behavior is the social identity theory. This theory suggests that an individual's identity, specifically their social identity, in combination with their personality desire to be a member of a group and have group membership. Groups where membership is desired include race, community involvement, friendship groups, workmates, sporting teams, and family membership (Tajfel & Turner, 1979). Furthermore, when individuals feel a part of a group they acquire beliefs and behaviors characteristic of that group. Therefore, when suicidal behaviors occur within a social group, behaviors can lead to subsequent acts, of any lethality (Leo & Heller, 2008).

Research by Schmidtke and colleagues (2004) indicate that suicidal behaviors increase among individuals who are similar. Stack (1987) stated that white male suicides rates rose after a high profile white male committed suicide, however there is not as strong of an association between women and black males in the United States for social motivation/influence for suicidal ideation.

According to Leo and Heller (2008) adolescent suicidality increases at a greater rate (6-7%) than adult suicidal behaviors (2-3%) following a completed suicide by an adult. Approximately 5% of adolescent suicidal behaviors may be a result of suicide clustering, which is when a group of suicides occur in a community or among a group of people at one time (i.e. one-week time period). Suicidal behavior tends to cluster especially among adolescents (Maris, 1997; Velting & Gould, 1997). Furthermore, the effects of clustering depend on the similarities between the individuals injuring themselves. Leo and Heller (2008) indicated that age (adolescents and older individuals

are most at risk), gender, self-esteem, and ethnicity are major factors when individuals consider self-harming behaviors (Stack, 1996; Molock, Williams, Lacy, & Kimborough, 1994). Joiner (2003) supported this theory suggesting that friendships can explain suicidal behaviors among adolescence.

Research indicates that suicides tend to cluster, suggesting that contagion may play a role in suicidal ideation (Joiner, 2003). Individuals involved within the suicidal ideation cluster were likely to have a pre-existing mood disorder (Wong, et al., 2005; Kirkcaldy, Eysenck, & Siefen, 2004). Vulnerable individuals may experience suicidal ideation as a result of severe stressors, such as discovering a friend, loved one, or a person one looks up to also engages in self-injury (Joiner, 2003). In Hong Kong and in the West, research indicates that individuals with depressive symptomology are more vulnerable to harm themselves in some way when exposed to suicide attempts of other individuals close to them (are in their social network; Wong, et al., 2005).

According to Walsh (2006), youth self-injurers may have been introduced to the self-harming behaviors by a friend, despite the fact that most youth deny imitating others (Plante, 2007). Plante (2007) reported that NSSI behaviors have almost taken on a "faddish quality" because many girls harm themselves in direct imitation to others. Rosen and Walsh (2006) even suggested that some may self-injure as a form of bonding. Once they are introduced to this type of behavior, they may become dependent on it and use it as a way to cope and reduce emotional pain. These are the individuals who lack coping skills necessary to keep emotional distress at a minimum (Walsh, 2006).

Rosen and Walsh (1989) defined self-injury contagion as the "infliction of self-injury by one individual and imitation by others in the immediate environment." Walsh

and Rosen (1985) further examined self-injury contagion and broke it down two different ways. The first one includes acts of self-injury that occur in two or more people within the same group within a 24-hour period. The second instance is when self-injury occurs in clusters or bursts within a group and is statistically significant (Walsh & Rosen, 1985). The majority of research in this area has been conducted on children, adolescents, and young adults who are hospitalized, in treatment, (Taiminen et al., 1998, Rosen & Walsh, 1989; Kroll, 1978; Offer & Barglow, 1960), in prison (Virkkunen, 1976), in juvenile detention facilities (Ross & McKay, 1979), or in special education schools (Rosen & Walsh, 1989).

Research by Plante (2007) agreed that individuals in confined settings are more likely to self-injure in a contagious fashion when placed in hospitals, prisons, and residential care facilities. Hospitalized and incarcerated youth are more likely to self-injure and be vulnerable to social contagion for many reasons. Individuals who are in jail or hospitalized are likely to already have an underlying personality disorder, impulse control disorders, or other factors that interfere with them coping with their emotions and peer influence. Institutional life is known for intensifying underlying psychological disorders and they may view self-harming behaviors as a way to bond and feel a sense of belonging to their self-harming peers.

According to Walsh (2006) there are multiple interpersonal factors supporting contagion. The interpersonal factors that are mentioned by Walsh are broken down into four main categories, such as limited communication skills, attempts to change others' behaviors, response to others (caregivers, family members, or significant others), and additional peer-group influences (Walsh, 2006). Limited communication skills

encompass the desire for acknowledgement, which suggests that multiple people self-injure because they lack effective communication skills (Kirkcaldy, Eysenck, & Siefen, 2004). Many self-injurers say self-injury is an outlet to let others know they are sad, angry, anxious, or depressed. They view self-injury as the only way to communicate, which is attention-grabbing (visible, concrete, and dramatic; Walsh, 2006). In addition, when individuals have difficult times communicating their emotions, they may self-injure as a means to punish themselves. They may use self-injury to manipulate others to feel guilty or scared; meanwhile they may feel rage and vengefulness (Walsh, 2006).

Individuals are also likely to self-injure to initiate a response from their caregivers, family, or significant others. They use the self-destructive behaviors as a way to gain attentions among a group of people, because it is a hard behavior to ignore and puts individuals in an awkward position. For instance, when there is a contagion of individuals self-injuring, one may be more inclined to self-injure so they are the most recent self-injurer to receive the most attention (Walsh, 2006). Additionally, individuals may use self-injury as an advantageous and tactical behavior; because they are afraid of the consequences of outward expressive, possibly violent actions. They may have aggressive acts they wish to exhibit, but are on probation or in treatment and such behaviors are prohibited; and they fear the consequences of those behaviors, so they self-injure as a more efficient way of coping (Walsh, 2006).

Self-injurers are likely to engage in self-destructive behaviors in an attempt to change the behavior of others. They may specifically want to produce a withdrawal of a member of a group. For example, if a group of teens wants to get rid of a friend, then they may require burning themselves in order to maintain group membership. Self-injury can

be a means to coerce others to behave according to how others want them to. According to Walsh (2006), a common theme of the group would include, "Cut yourself or else."

The last interpersonal factor influencing self-injury contagion is the role of additional peer group influence. Individual may self-injure within a group because of the influence of social modeling. The role of peers can advance self-injurious behaviors. Peer pressure is supportive of self-injury when there is a competition between specific actions of self-injurers, such as competition to out-do each other in the severity of self-injury (physical damage), type of weapon used, number of wounds, level of mutilation (scars), or the area of the body they harmed. Peer influence can exacerbate self-injury when one person reduces of eliminates the inhibitions of another regarding self-injury (Walsh, 2006).

Another reason for self-injury contagion can be because of high status self-injurers or popular kids within a group or school who are self-injurers themselves. In in-patient settings, one or two patients may be particularly significant in initiating contagion incidents (Plante, 2007; Rosen & Walsh, 1989). Others may want to be like them and it creates contagion effects. Walsh (2006) also added that self-injury develops within a group to form cohesion among the group (Rosen & Walsh, 1989). Many self-injurers have indicated there is a bond among others who also harm themselves through self-injury. Hence, self-injury may occur because of interpersonal reasons rather than for intrapersonal reasons.

On the other hand, peer influence can lead to positive outcomes. If a group of friends self-injure and they decide to give it up, they can use and rely on each other as a

support system. Having a mutual support system among friends can be quite helpful (Walsh, 2006).

Nature of Exposure (Direct or Indirect)

Direct Exposure. Social learning may be an important factor with both family and non-family suicidal behavior instances. Theories of copying others have been used to support the idea of contagion. Recent research suggests that biological relatives of individuals who have been adopted and are/were suicidal have higher rates of suicidality than their adoptive relatives (Leo & Heller, 2008). Suicidal ideation (both fatal and non-fatal) is more common among monozygotic twin than among dizygotic twins (Roy & Segal, 2001). Self-injurious monozygotic twins are also more likely to be affected than dizygotic twins when a relative attempts or dies by suicide compared to when they know of someone indirectly, such as when someone in their community completes or attempts a suicide. Brent and Mann (2005) supported previous research that in combination with other risk factors, history of a family suicide attempt increases the risk of suicidal behaviors among other family members.

Indirect Exposure. There has been research studies regarding exposures to suicidal behaviors and their influences on other family members, but not as many of the studies have focused on indirect/non-familial contacts as influences of self-injury contagion. Leo and Heller (2008) suggested that non-familial acquaintances/friends may be more influential than family members as reason to engage in suicidal ideation. It is interesting to note that family members are important and significant influences on our own actions, which is somewhat unavoidable; whereas the people we associate with

outside of our family are usually acquaintances and friends we chose. Therefore, their influence might be the most influential.

According to Plante (2007), episode of suicidal ideation increase among peers immediately following suicides made public by the media. Contagion increases following newspaper reports and popularity of self-injuring stories in the media (Plante, 2007). The topic of suicidal ideation is attention-grabbing as mentioned above and individuals may be drawn to be a part of the attention, suggesting group membership is important.

Summary

Research studies show that screening for suicide ideation can increase identification of people experiencing depressive symptomology and suicidality, reduce suicidal ideation, and decrease attempted suicides (Asarnow, et al., 2005). Further supporting the idea that peer influence is important to individuals' psychological well-being is research indicates that having friends who have died by suicide are more likely to have symptoms of depression, anxiety, and post-traumatic stress disorder (Melhem, Day, Shear, Day et al., 2004). As previously mentioned, in Hong Kong and in the West, research indicates that individuals with depressive symptomology are more vulnerable to harm themselves in some way when exposed to suicide attempts of other individuals close to them (are in their social network; Wong, et al., 2005).

As mentioned previously, social learning theory suggests that an individual's social identity, in combination with their personality desire to be a member of a group and have group membership. Race, community involvement, friendship groups, workmates, sporting teams, and family membership are a few groups where membership is typically desired (Tajfel & Turner, 1979). When individuals feel a part of a group they

acquire beliefs and behaviors characteristic of that group. Therefore, when suicidal behaviors occur within a social group, behaviors can lead to subsequent acts, of any lethality (Leo & Heller, 2008), which may be a reason Native Americans are more affected by suicidal behaviors than other races. This supports research by Schmidtke and colleagues (2004) that suicidal behaviors increase among individuals who are similar, such as Native Americans. In addition, the risk for suicidal ideation increases when individuals are depressed, because of their sense of hopelessness, sadness, and foreshortened outlook on life.

Specific Hypotheses

1. Depressed Native Americans are more likely to self-injure and have thoughts of suicide than non-depressed Native Americans.
2. Past exposure to direct or indirect familial self-injury and/or suicide attempt will increase probability of subsequent participant self-injury and/or thoughts of suicide.
3. Links between past exposure and level of depression will vary subsequent participant self-injury and/or suicide attempt.

CHAPTER II

METHODS

Participants

Two hundred and three participants (20.7% male and 79.3% female) completed the study. All participants were at least 18 years old. The mean age of participants was 36.57 years (SD = 13.47). Due to the study's emphasis on Native American suicide and self-injury risk, all participants were of Native American decent. There were participants from 42 different tribal affiliations or combination of tribal affiliations (Turtle Mountain Band of Chippewa, Sisseton-Wahpeton, Northern Cheyenne, Cherokee, Muscogee-Creek, Pawnee/Yankton Sioux, Three Affiliated Tribes [Mandan, Hidatsa, & Arikara], Coree/Cherokee, Fond-du-Lac, Sault St. Marie Tribe of Chippewa, White Earth Minnesota Ojibwe, Assiniboine/Mandan, Standing Rock Sioux, Choctaw, Black Feet, Creek, Cheyenne River Sioux, Dakota Sioux, Citizen Potawatomi Nation, Opaskwayak Cree Nation, Chippewa/Ojibwe, Fort Peck Assiniboine Sioux, Oglala Lakota, Standing Rock & Turtle Mountain Band of Chippewa, Chippewa/Munsee Delaware/Cree, Isleta Pueblo, Mono, Yankton Sioux, Klamath Tribes/Northern Paiute, Chickasaw, Choctaw/Cherokee, Spirit Lake/Dakota Nation, Mohawk/Cayuga/Tuscarora, Salish, Arikara & Turtle Mountain Band of Chippewa, Menominee, Sioux, Cherokee/Sececa, Judah, Seneca, Yaqui, and North Fork Mono). The specific tribes represented in the sample were collected and reported (only in the dissertation) to demonstrate the wide

array of participants from different tribal affiliations. Participants lived in many different regions of the United States, but the majority was from the Northern and Central Plains.

Of the total sample after participants' ages were categorized by decades, 5% of the sample was comprised of 18 and 19 year olds, 41.3% of participants were in their 20s, 22.2% of participants were in their 30s, 14.3% of individuals were in their 40s, 11.1% of individuals were in their 50s, and 3.2% of participants were in their 60s. Of the 15 different specific categories of self-injury, the self-injury category that was endorsed the most (9.9%) was the catchall category of "doing other forms of self-injury" that was not specifically listed. The next most common forms of self-injury were punching (7.5%), severe scratching (3%), carving pictures (2.5%), sticking objects in skin (2%), and carving words (2%). On average individuals who endorsed performing self-harming behaviors at some point, engaged in self-harming behaviors on three separate occasions (SD= 2.14; range 0 to 7). Previous research indicates that women are more likely to endorse self-injury than men and the current study further supports that idea (Plante, 2007). In the current study, 77.8% of females endorsed engaging in more than one self-harming behavior and 22.2% of males deliberately harmed themselves multiple times.

Participants reported feelings of depression and scores ranged from minimal (0-13), mild (14-19), moderate (20-28), and severe (29-63). There were different levels of depression reported and 76.4% of participants were minimally depressed, followed by 11.8% of participants being mildly depressed, 5.9% of participants being moderately depressed, and 5.9% of participants having a severe level of depression.

The level of hopelessness was explored and the scores on Beck Hopelessness Scale could register in either the mild, moderate, or severe levels. Participants who

completed the study reported 43.8% a mild level of hopelessness about the future, 55.2% were moderately hopeless, and 1% endorsed a severe range of hopelessness about the future.

Procedure

To recruit Native American subjects from the different tribal colleges in the upper Midwest, tribal councils on each reservation were contacted to gain approval to conduct research on tribal lands. Of the five tribal councils contacted, only one expressed interest and awarded a tribal resolution to conduct research with their tribal members.

Participants were recruited through e-mail announcements posted by the various Native American programs (American Indian Student Services programs on college campuses) and forwarded through their electronic e-mail listservs. The link to the study was included in the electronic e-mails sent to the different Native American programs. Participants were also told that they could forward the link to other Native Americans over the age of 18 to complete the study.

Data was collected using Survey Monkey, which is a secure website that allowed the researcher to develop a survey in a confidential manner. The link to the survey was http://s-b6bf35-i.sgizmo.com/s3/. Upon beginning the online research survey, participants were prompted with the informed consent (see Appendix A). Participants were provided with the informed consent documenting the purpose, risk, and benefits of the study. Participants had the opportunity to print a copy of the informed consent form if they wished to obtain for their records. Participants agreeing to complete the study were guided to questionnaires inquiring about basic demographics, deliberate self-harm, exposure to self-injury and suicide, depression, and hopelessness. It took participants 15

to 20 minutes to complete the study. To guarantee confidentiality, participants were instructed to electronically e-mail the primary investigator after they completed the study to be entered into the gift card drawing. Participants were then entered into a drawing for gift cards worth $10 and $20 to compensate their time and efforts in participation. Winners were contacted by electronic e-mail to ask for their physical address to mail their gift card.

The primary risk to project participants was the potential emotional distress or discomfort due to the nature of the questionnaires. Questionnaires addressed the sensitive topics of depression, hopelessness, suicidal ideation, suicide, and exposure to suicide and suicidal ideation and asked participants to provide detailed information regarding their history in this area.

To ensure the safety of participants in the study, participants' were provided with professional individuals, organizations, hospitals, and hotline telephone numbers and addresses (see Appendix G) they could contact if they experienced emotional distress from completing the study.

Participants' confidentiality was protected and there are no identifiable markers from their data. In fact, due to digital packets being coded with an arbitrary number, participant responses are considered anonymous. All data was reported in aggregate form so individualized responses are not identifiable. Individual computers prevented others from seeing the responses of a single individual.

The research was conducted primarily by the principle investigator, a graduate student in clinical psychology. The principal investigator completed Institutional Review Board (IRB) training and is trained in the current research protocol with human subjects.

Measures

Demographic Questionnaire. Questions (see Appendix B) inquiring about participant demographics such as age, gender, and Native American heritage (Which tribe do you belong to?) were administered to obtain descriptive information. Participants were also asked to report on what they identified as their current class ranking and where they attend college.

Deliberate Self-Harm Inventory (DSHI; Gratz, 2001). The DSHI (see Appendix C) is a self-report inventory consisting of 16 items that assess multiple aspects of self-injury, including the type of injury (e.g. cutting, burning), frequency of behavior, severity of injuries, and duration of self-harming behaviors. Participants indicated whether or not they had engaged in the specified behavior. There are follow-up questions regarding frequency, severity, etc. based on Likert-type scales, if the item is positively endorsed. Scoring consists of tallying the number of self-injury behaviors endorsed. More detailed information regarding frequency of injury, age of onset, medical assistance used, etc. is also scored using the tally system. Scores can range from 0 (no history) to over 100. The DSHI has demonstrated initial strong psychometric properties. In a sample of 150 college undergraduates, it was found to have acceptable reliability both internally ($\alpha = .82$), and in test-retest procedures ($r = .92$). The DSHI was found to accurately identify those with a history of self-injury from those without a history of self-injury, based on follow-up interviews (Gratz, 2001). In this study, internal consistency (Cronbach's α) was .73.

Direct/Indirect Exposure. The Direct/Indirect exposure (Appendix D) assessed individuals' exposure to suicidal ideation in others. There is no known valid and reliable

measure to assess this information. The inventory will ask the participant if they have in any way been exposed to an individual(s) who have purposely harmed themselves, attempted suicide, completed suicide, or were never exposed to an individual who engaged in self-harming behaviors, suicide attempt, and/or completed suicide. Participants will also be asked if they knew the individual directly (family member, friend, spouse, other close individuals, etc.), indirectly (media, heard of suicidal ideators actions through community, and/or did not personally know them, etc.), or never knew a person who engaged in self-harming behaviors, attempted suicide, and/or completed suicide. Participants were also asked how long (less than one month, three months, six months, one year, more than one year, or never knew an individual who engaged in self-harming behaviors , attempted suicide, and/or completed suicide) they knew the individual who engaged in the self-harming behaviors, attempted suicide, and/or completed suicide.

Beck Depression Inventory-II (BDI-II; Beck, Steer, & Brown, 1996). The BDI-II (see Appendix E) is a reliable and valid measure of depression. It consists of 21 questions regarding various symptoms of depression such as fatigue, sadness, and interests. Each question is answered with a score of 0, 1, 2, or 3, which depends upon the severity the individual is experiencing the particular symptom of depression. Total scale scores are calculated by summing all the responses, scores between 0-19 indicate minimal or mild depression and scores in the range of 20-63 represent moderate to severe depression.

Reliability and validity of the BDI-II has been extensively examined in both adult outpatient samples and college samples. In a study of 120 college students Beck et al. (1996) found the BDI-II to have an acceptable level of internal reliability (α = .93).

Additional support for the use of the BDI–II as a reliable and valid measure of depression is confirmed in a study of 137 college students who received services at a university counseling center (Sprinkle et al., 2002). There are also no currently published studies of reliability and validity of depression with American Indians. In this study, internal consistency (Cronbach's α) was .94.

Beck Hopelessness Scale (BHS; Beck, Weissman, Lester, & Trexler, 1974). The BHS (see Appendix F) has been a reliable and valid measure of negative attitudes for many years. It consists of 20 true-false statements regarding negative expectations for the future. Each question is answered either true or false. Of the 20 true-false statements, nine are entered as true and 11 are entered as false to indicate attitude of pessimism about the future. Total scale scores are calculated by summing all the responses. Scores can range from 0 to 20 with higher scores indicating greater hopelessness.

Reliability and validity of the BHS has been extensively examined across diverse samples of individuals, suicide attempters, alcoholics, heroin addicts, single-episode Major Depression Disorders, recurrent-episode Major Depressive Disorders, and Dysthymic Disorders, but not with Native Americans who are suicide ideators. The internal consistency across these seven clinical samples are acceptable at .92, .93, .91, .82, .92, .92, and .87, respectively (Beck, Weissman, Lester, et al., 1974). In this study, the internal reliability (KR20) was .90.

CHAPTER III

RESULTS

Descriptive Characteristics of Sample

The tribal affiliations of the sample were varied but were mostly comprised of participants from the Northern and Central Plains Tribes (see Figure 1). The specific tribes represented in the sample were collected and reported to demonstrate the wide array of participants from different tribal affiliations. Within the total sample, the largest percentage or 41.3% (n = 26) of participants who engaged in self-injury were from their twenties followed by individuals in their thirties (22.2%; n = 14). A total of 63 participants (3.22%) endorsed engaging in one or more self-harming behaviors (M = 3.00, SD = 2.14). Among participants with a history of suicidal ideation, the mean age of onset for the self-harming behavior was consistent with prior findings showing a steady increase over the course of adolescence (Muehlenkamp, et al., 2008; Prinstein, et al., 2008). Table 1 presents the mean and standard deviations of mean age of onset for suicidal ideation. The earliest self-harming behavior in the present study began at 6.5 years old and the oldest age of onset of a self-harming behavior was 14.94 years old.

Participants in this sample identified a range of acts that constituted self-harm behavior (see Table 2). Punching self (n = 15, 7%) was the most frequent form of self-injury with participants acknowledging a range of one to six acts in their developmental history. Intentional scratching was the second most endorsed form of self-harming

behavior (n = 6, 3%) with a range of one to six prior episodes. Carving pictures into body (n = 5; 2.5%) was the third most endorsed self-harming behavior with a range of one to three prior acts. Carving words into body and purposely sticking objects into the body were equally endorsed (n = 4, 2%) with these acts occurring one to six times among respective participants. Three participants endorsed cutting on their body (range of one to six acts) and two participants reporting purposely burning their body once or twice. Participants endorsed using cleaner (n = 2, 1%) to purposely hurt themselves at least once. Other self-harming behaviors endorsed at least once were purposely biting own body, rubbing glass into body, banging head, and preventing wounds from healing. An unspecified category ("how many times have you done anything else to hurt yourself" was endorsed by 20 participants (9.9%) with acts occurring from one to six times. Self-injurious behaviors that were not endorsed by anyone in the sample included rubbing skin with sandpaper, dripping acid onto the skin, and purposely breaking own bones.

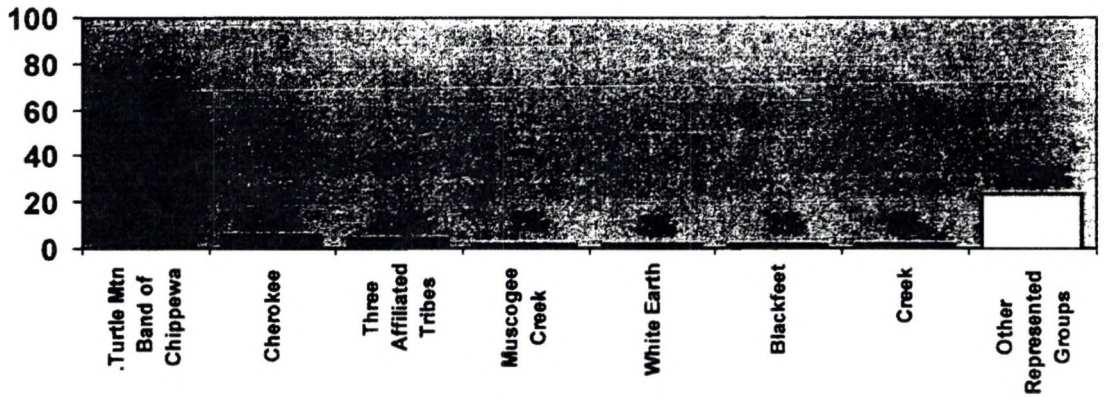

Figure 1. Distribution of Tribal Affiliations.

Table 1. Mean Age of Onset of Self-Harming Behaviors.

Self-Harming Behavior	*M*	*SD*
Prevented Wounds	6.50	9.12
Bit Self	7.50	10.61
Rubbed Glass	7.50	10.61
Banged Head	8.00	11.31
Stuck Sharp Objects	9.60	5.37
Burned Skin	10.00	8.72
Carved Words	11.80	6.72
Carved Pictures	11.83	5.91
Scratched Self	11.88	9.03
Used Cleaning Products on Skin	12.00	16.97
Cut Self	12.75	9.91
Other Forms of Suicidal Ideation	14.76	5.79
Punched Self	14.94	5.13

A total of 76.2% (n = 154) of the total sample endorsed one or more depression symptoms that were experienced over the past two weeks. BDI-II scores ranged from 0 to 41, which allowed the application of scoring manual guidelines to group the total distribution in the following manner: scores of 0-13 (minimal depression, n = 155; 76.4%); scores of 14-19 (mild depression, n = 24, 11.8%); scores of 20-28 (moderate depression, n = 12, 5.9%); and scores of 29-63 (severe depression, n = 12, 5.9%). For the purposes of data analysis BDI-II depression levels were sorted into either *Minimally*

Depressed (n = 155), *Mildly Depressed* (n = 24), or *Moderately to Severely Depressed* (n = 24) categories (latter group combined the moderate and severe test manual designations; see Figure 2). All participants endorsed at least one symptom of hopelessness (R = 5-14) as defined by the BHS (see Figure 3). This distribution of scores was segregated into mild (n = 89, 43.8%), moderate (n = 2, 1%), and severe (n = 2, 1%) levels of hopelessness.

Table 2. Frequencies, Means, and Standard Deviations for Age of Onset for Suicidal Ideation.

Suicidal Ideation	*N*	*M*	*SD*
Prevented Wounds	1.0	6.50	9.12
Bit Self	1.0	7.50	10.61
Rubbed Glass	1.0	7.50	10.61
Banged Head	1.0	8.00	11.31
Stuck Sharp Object	4.0	9.60	5.37
Burned Skin	2.0	10.00	8.72
Carved Words	4.0	11.80	6.72
Carved Pictures	5.0	11.83	5.91
Scratched Self	6.0	11.88	9.03
Used Cleaning Products on Skin	2.0	12.00	16.97
Cut Self	3.0	12.75	9.91
Other Forms of Suicidal Ideation	20.0	14.76	5.79
Punched Self	15.0	14.94	5.13

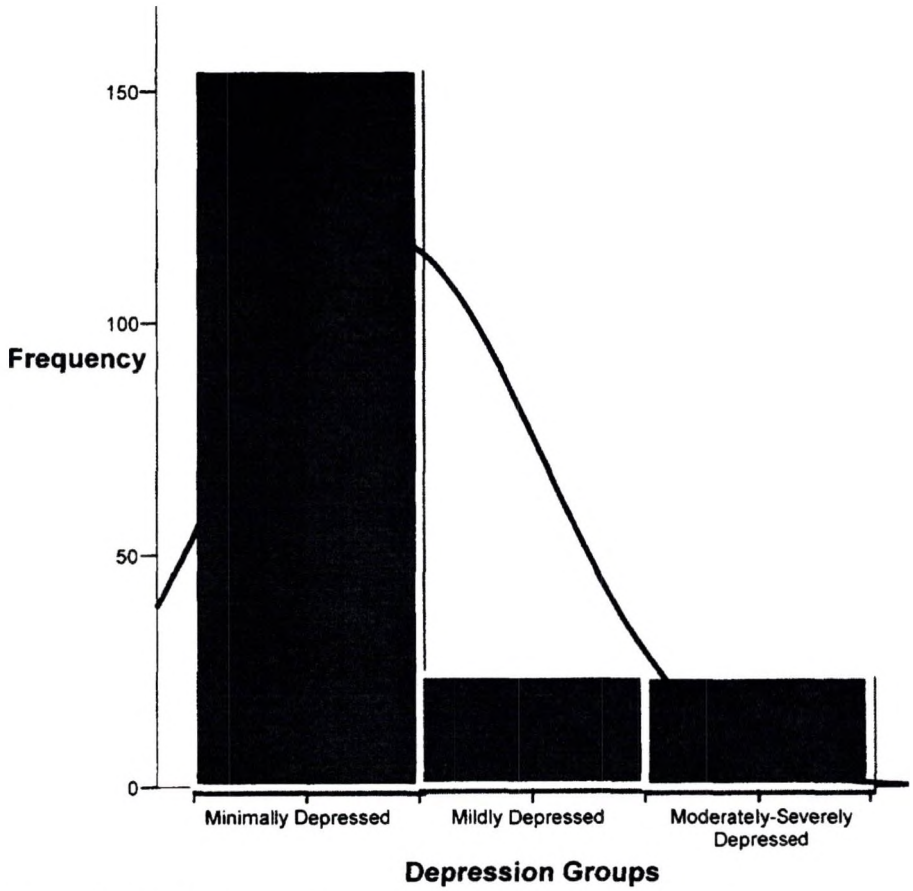

Figure 2. Distribution of Depression.

Group Comparisons

A one-way Analysis of Variance was calculated to test whether or not self-harm behavior varied as a function of the depression level. Table 3 describes the distribution of self-harm behavior within the three depression categories (minimally depressed, mildly depressed, and moderately to severely depressed). A significant main effect was found, F (2, 200) = 17.06, p = .000, with an average effect size (η^2 = 15%). Given the range of variance within the three cells (1.12 to 5.02), post hoc comparisons were conducted using

Dunnett's C test. Minimally depressed participants showed significantly less self-harming behaviors than those classified as moderately to severely depressed.

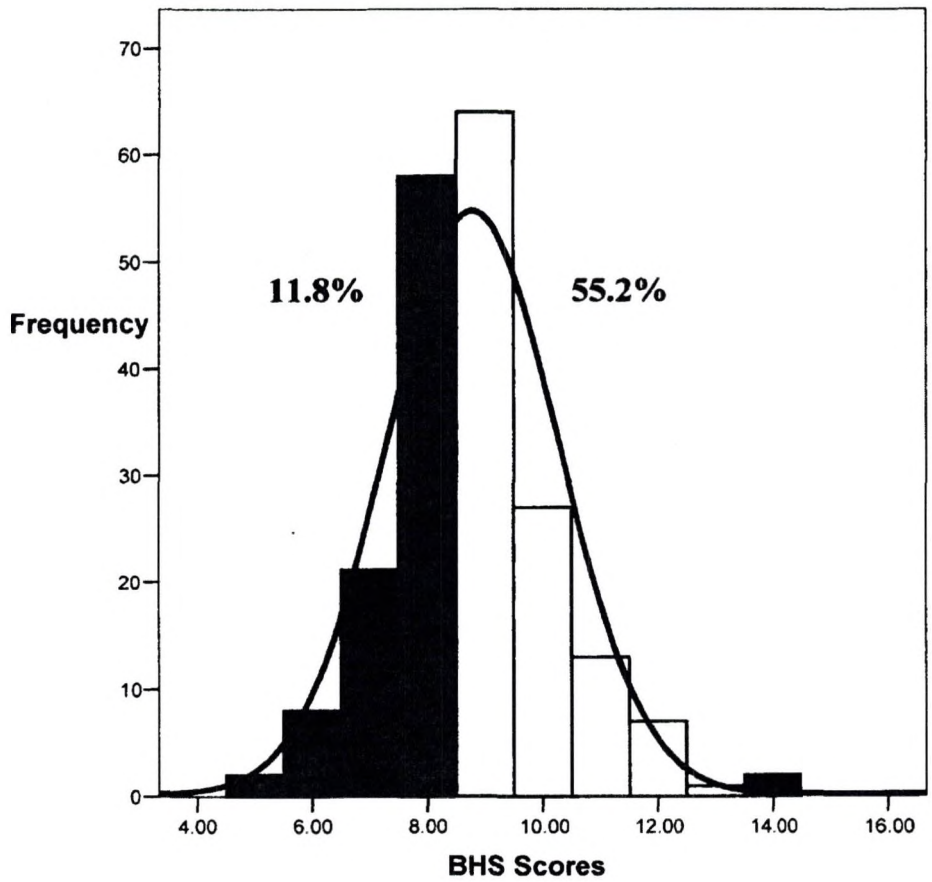

Figure 3. Distribution of Hopelessness.

Note: The shaded blue area represents the mildly hopeless, the yellow shaded area represents the moderately hopeless, and the red area corresponds to the severely hopeless participants.

Table 3. Ninety-Five Percent Confidence Intervals of Pairwise Differences in Mean Changes in Frequency of Self-Harming Behaviors.

Depression Group	M	SD	Minimally Depressed	Mildly Depressed
Minimally Depressed	0.47	1.06		
Mildly Depressed	1.46	2.24	-2.15 to .18	
Mod.-Severely Depressed	2.08	2.10	-2.71 to -.52*	-2.20 to .95

Note: An asterisk indicates that the mean difference is significant at the .05 level.

A three by two analysis of variance was calculated to examine changes in self-harm behavior as a function of depression (minimally depressed, mildly depressed, and moderately to severely depressed) and suicidality levels. Suicidality was classified into one of four categories: *Not Suicidal* ("I don't have any thoughts of killing myself"); *Ideations* ("I have thoughts of killing myself, but I would not carry them out"); *Intent* ("I would like to kill myself"); and *Ideations and Intent* ("I would like to kill myself if I had the chance"). Table 4 provides a breakdown of self-harm scores by the seven cells in this analysis. A significant main effect was found for level of depression, $F(2, 196) = 5.60$, $p < .01$, partial $\eta^2 = .05$, but not suicidality, $F(2, 196) = .582$, $p > .05$, partial $\eta^2 = .01$ on self-harm behavior. Similarly, the depression by suicidality interaction was not significant, $F(2, 196) = 1.61$, $p > .05$, partial $\eta^2 = .02$.

Evaluation of Hypothesis 2

A four (*Exposure Type:* (None, Self-Harm, Attempted Suicide, Completed Suicide) by three *(Familiarity:* Unfamiliar, Indirect, Direct) by 4 (*Suicidality Level:* Not Suicidal, Ideations, Intent, and Ideations and Intent) ANOVA was conducted to test the

significance of the relationship of these predictive categories and self-harm behavior. Descriptive statistics are presented for self-harm behavior as exhibited within the nine cells (see Table 5). The three-way ANOVA indicated no significant main effet for type of exposure, $F(3,194) = .199$, $p > .05$, partial $\eta^2 = .03$, no significant main effect for type of exposure, $F(2, 194) = .284$, $p > .05$, partial $\eta^2 = .008$, nor a significant interaction between exposure, type of exposure, and self-harming behaviors, $F(8,194) = 1.77$, $p > .05$, partial $\eta^2 = .070$.

Table 4. Means and Standard Deviations for Suicidal Ideation by Depression.

Depression Group	Suicidal Thoughts	M	SD
Minimally Depressed	Not Suicidal Ideations	.45 1.00	1.04 1.55
Mildly Depressed	Not Suicidal Ideations	1.62 .33	2.35 .58
Moderately-Severely Depressed	Not Suicidal Ideations Intent	2.20 1.92 3.00	2.20 2.18

Table 5. Means and Standard Deviations for Suicidal Ideation by Exposure.

Exposure	Type of Exposure	M	SD
No Exposure	Never knew an individual	.26	.68
	Indirectly knew an individual	.33	.58
	Directly knew an individual	.75	1.50
Exposed to Self-Injury	Indirectly knew an individual	1.00	1.55
	Directly knew an individual	.86	1.61
Exposed to Attempted Suicide	Indirectly knew an individual	.00	.00
	Directly knew an individual	1.14	1.75
Exposed to Completed Suicide	Indirectly knew an individual	.00	
	Directly knew an individual	1.21	1.96

Evaluation of Hypothesis 3

A four by three ANOVA on Self-Harming Behaviors was calculated. The two independent variables were level of depression and exposure. Depression was broken down into three levels (minimally, mildly, and moderately to severely depressed), exposure will be broken down into four levels (no exposure, exposure to self injury, exposure to attempted suicide, and exposure to completed suicide). The dependent variable was the frequency of self-harming behaviors. The means and standard deviations for frequency of self-injury as a function of the two factors are presented in Table 6. The Depression by Exposure Type ANOVA on Self-Harming Behaviors indicated a significant interaction between exposure and level of depression, $F(6, 191) = 3.77$, $p < .01$, partial $\eta^2 = .11$, a significant main effect for levels of depression, $F(2, 191) = 14.03$, $p = .000$, partial $\eta^2 = .13$, and a significant main effect for exposure, $F(3, 191) = 2.87$, $p < .05$, partial $\eta^2 = .04$. The depression main effect indicated that the level of depression and exposure influenced the frequency of suicidal ideation. There was a significant interaction between exposure and the frequency of self-harming behaviors. The interaction between the levels of depression and suicidal ideation was significant. Given the range of variance within the four cells (0 to 7.13), post hoc comparisons were conducted using Dunnett's C test. There was a significant difference in the means between the no exposure group and the group who were exposed to a completed suicide. There were not any significant differences between the other intensities of exposure. The 95% confidence intervals for the pair-wise differences are reported in Table 7.

Table 6. Means and Standard Deviations of Type of Level of Depression on Suicidal Ideation.

Type of Exposure	Depression Group	M	SD
No Exposure	Minimally Depressed	.25	.65
	Mildly Depressed	.00	.00
	Mod.-Severely Depressed	1.25	1.50
Exposed to Self-Injury	Minimally Depressed	.56	1.34
	Mildly Depressed	2.00	2.58
	Mod.-Severely Depressed	1.57	1.13
Exposed to Attempted Suicide	Minimally Depressed	.64	1.08
	Mildly Depressed	2.37	2.67
	Mod.-Severely Depressed	1.57	2.15
Exposed to Completed Suicide	Minimally Depressed	.65	1.26
	Mildly Depressed	.40	.89
	Mod.-Severely Depressed	3.83	2.64

Table 7. Ninety-Five Percent Confidence Intervals of Pairwise Differences in Mean Changes in Frequency of Self-Harming Behaviors.

Type of Exposure	No Exposure	Exposed to Self-Injury	Exposed to Attempted Suicide	Exposed to Completed Suicide
No Exposure		-1.19 to .035	-1.51 to .076*	-1.82 to .05
Exposed to Self Injury	-.035 to 1.19		-1.10 to .67	-1.37 to .76
Exposed to Attempted Suicide	.076 to 1.51	-.67 to 1.10		-1.22 to 1.04
Exposed to Completed Suicide	-.05 to 1.82	-.76 to 1.37	-1.04 to 1.22	

Note: An asterisk indicates that the mean difference is significant at the .05 level.

After a significant *F* test was obtained with the 3-way ANOVA, a Pearson R was conducted to determine if there were correlations among suicidal ideation, depression

(BDI-II total scores), and hopelessness (BHS total score). Using the Bonferroni approach to control for Type I error across the correlations, a p value of less than .005 (05 / 10 = .005) was required for significance. The results of the correlation analyses presented in Table 8 show that 3 out of 3 correlations were statistically significant. In general, the results suggest that if participants endorse depression and hopelessness, separately, they tend to endorse suicidal ideation. Current findings also show that participants who endorse hopelessness tend to endorse depressive symptoms.

Table 8. Correlations among Suicidal Ideation, Depression, and Hopelessness (N = 203).

	Suicidal Ideation	Depression	Hopelessness
Suicidal Ideation		.37*	.27*
Depression (BDI-II Total Score)			.26*

Note: An asterisk indicates that the mean difference is significant at the .05 level.

It was not originally speculated that gender would statistically influence the relationships between self-harm, depression, and suicidal thoughts, but a two-way analysis of variance was calculated to examine changes in self-harm behavior as a function of gender, depression (minimally depressed, mildly depressed, and moderately to severely depressed), and suicidal thoughts (not suicidal, ideations, intent, and ideations with intent). Table 9 provides a breakdown of self-harm scores by the 18 cells in this analysis. No significant main effects were found for gender, $F(1, 190) = .480$, $p > .05$, partial $\eta^2 = .00$, depression groups, $F(2, 190) = 1.88$, $p > .05$, partial $\eta^2 = .02$, or suicidal thoughts, $F(1, 190) = .406$, $p > .05$, partial $\eta^2 = .00$ on self-harm behavior. Similarly, all the interactions among gender, depression groups, and suicidal thoughts interactions were not significant. The gender by depression groups interaction was not significant, $F(2,$

190) = 0.81, $p > .05$, partial $\eta^2 = .00$, the gender by suicidal thoughts interaction was not significant, F (1, 190) = .059, $p > .05$, partial $\eta^2 = .00$, the depression groups by suicidal thoughts interaction was not significant, F (2, 190) = .903, $p > .05$, partial $\eta^2 = .01$, nor the gender by depression groups by suicidal thoughts interaction was not significant, F (2, 190) = .584, $p > .05$, partial $\eta^2 = .01$.

Table 9. Means and Standard Deviations of Gender, Level of Depression, and Exposure on Suicidal Ideation.

Gender	Depression Group	Suicidal Thoughts	M	SD
Male	Minimally Depressed	Not Suicidal	.57	1.12
		Ideations	.00	.00
	Mildly Depressed	Not Suicidal	2.0	
		Ideations	.00	
	Mod.-Severely Depressed	Not Suicidal	1.0	
		Ideations	2.0	
Female	Minimally Depressed	Not Suicidal	.41	1.01
		Ideations	1.20	1.64
	Mildly Depressed	Not Suicidal	1.60	2.41
		Ideations	.50	.71
	Mod.-Severely Depressed	Not Suicidal	2.33	2.29
		Ideations	1.92	2.27
		Intent	3.00	

It was also not originally hypothesized that effects of gender would statistically negate or neutralize relationships between self-harm, depression, and exposure, but a three-way analysis of variance was calculated to examine changes in self-harm behavior as a function of gender, depression (minimally depressed, mildly depressed, and moderately to severely depressed) and exposure (no exposure, exposure to self injury,

exposure to attempted suicide, and exposure to completed suicide). Table 10 provides a breakdown of self-harm scores by the 24 cells in this analysis. Significant main effects were found for level of depression, $F(2, 184) = 4.06$, $p < .05$, partial $\eta^2 = .04$, exposure, $F(3, 184) = 2.79$, $p < .05$, partial $\eta^2 = .04$, but not gender, $F(1, 184) = .397$, $p > .05$, partial $\eta^2 < .01$ on self-harm behavior. Similarly, the gender by exposure interaction was not significant, $F(3, 184) = 1.29$, $p > .05$, partial $\eta^2 = .02$, the gender by depression interaction was not significant, $F(2, 184) = .613$, $p > .05$, partial $\eta^2 = .01$, nor the gender by exposure by depression interaction was not significant, $F(1, 184) = .804$, $p > .05$, partial $\eta^2 < .01$. The exposure by depression interaction was significant, $F(6, 184) = 3.93$, $p < .01$, partial $\eta^2 = .11$. As previously mentioned, the depression main effect indicated that the level of depression and exposure influenced the frequency of suicidal ideation, but gender was not an influential factor. The interaction between the levels of depression and exposure was significant. Given the range of variance within the four cells (0 to 7.12), post hoc comparisons were conducted using Dunnett's C test. There was a significant difference in the means between the no exposure group and the group who was exposed to an attempted suicide. There were not any significant differences between the other intensities of exposure, gender, or depression. The 95% confidence intervals for the pair-wise differences can be found in Table 7, since gender differences were not a factor in the significant main effects of the exposure by depression interaction and findings were parallel.

Table 10. Means and Standard Deviations of Gender, Type of Exposure, and Levels of Depression on Suicidal Ideation.

Gender	Type of Exposure	Depression Group	M	SD
Male	No Exposure	Minimally Depressed	.37	.83
		Mildly Depressed	.00	
	Exposed to Self-Injury	Minimally Depressed	1.4	2.07
		Moderate-Severely Depressed	1.50	.71
	Exposed to Attempted Suicide	Minimally Depressed	.17	.41
	Exposed to Completed Suicide	Minimally Depressed	.75	1.16
		Mildly Depressed	2.0	
Female	No Exposure	Minimally Depressed	.20	.56
		Mildly Depressed	.00	.00
		Moderate.-Severely Depressed	1.25	1.50
	Exposed to Self-Injury	Minimally Depressed	.44	1.21
		Mildly Depressed	2.00	2.58
		Moderate-Severely Depressed	1.60	1.34
	Exposed to Attempted Suicide	Minimally Depressed	.76	1.16
		Mildly Depressed	2.38	2.67
		Moderate-Severely Depressed	1.57	2.15
	Exposed to Completed Suicide	Minimally Depressed	.60	1.35
		Mildly Depressed	.00	.00
		Moderate-Severely Depressed	3.83	2.64

CHAPTER IV

DISCUSSION

The DSM-IV-TR identified that recurrent thoughts of death, suicidal ideation without a detailed plan, or a suicide attempt are symptoms of depression (American Psychological Association; APA, 2000). The current results support previous research about suicidal ideation being a symptom of depression specifically with Native Americans. The current study discovered that if participants were mildly, moderately, or severely depressed, according to cut off scores of the BDI-II (Beck, Steer, & Brown, 1996), depression was a strong predictor of self-harming behaviors. Native Americans who were minimally depressed also reported engaging in self-injury, but not at the rate of individuals who were more depressed.

Results from the current study discovered that participants who were minimally depressed and had no thoughts of suicide, faintly (less than one act of self-injury) carried out suicidal ideation. However, despite no thoughts of suicide, as participants became more depressed, they still engaged in self-harming behaviors; and the more depressed (mildly and moderately to severely depressed) the individuals became, the more self-harming behaviors that occurred. The trend for individuals with thoughts of killing themselves, but with no serious intent (said they would not follow through on ending their own life), progressively performed more acts of self-injury as they became more depressed, except for individuals who were mildly depressed. The individuals who were

mildly depressed and had thoughts of suicide, but no serious intent (said they would not carry out the acts) were the least likely to engage in the self-harming behaviors. Only the moderately to severely depressed group of individuals among the sample endorsed that they would like to kill themselves. This group of depressed individuals was likely to engage in at least three acts of NSSI. Based on previous research, individuals moderately to severely depressed may be in so much pain they want to feel something else other than the emotional pain they may be currently experiencing or that they feel so numb, they have the desire and need to feel something, even if it is pain (Walsh, 2009; Glenn & Klonsky, 2009).

Native Americans in the current study reported a high rate of hopelessness, which is another symptom of depression, according to the DSM-IV-TR (American Psychological Association; APA, 2000). Every participant from the current research endorsed some level of hopelessness, based on the scoring guidelines from the Beck Hopelessness Scale (Beck & Steer, 1974), with the majority of participants reporting moderate hopelessness about the future. As mentioned before, many Native Americans are faced with a lifetime of adversity, such as living in extreme poverty, history of abuse (physical, sexual, and/or emotional), and are isolated in rural areas (Olson & Wahab, 2006; Range et al., 1999; Thresher, 2005; Tirado, 2006; Young, 1990), which increases their likelihood of becoming depressed and hopeless. Native Americans are also faced with low high school and college graduate rates (Olson & Wahab, 2006; Gone, 2004), which may inhibit Native Americans sense of personal strength, power, and resilience they have to improve their mood, outlook on life , and their overall sense well-being.

The current study also found that despite the majority of participants only being minimally depressed, the highest frequency of hopelessness was in the moderate range. Learned helplessness or learning to live helplessly even when the opportunity exists, many have contributed to high rates of depression and hopelessness (Sapolsky, 2010) among Native Americans.

The self-harming behaviors endorsed at the highest rate by Native American participants were the catchall category, so the common self-harming behaviors among Native Americans and the mainstream population slightly differed. The typical self-harming behaviors of the mainstream population are cutting, scratching, carving, excoriation of wounds, self-hitting, self-burning, head banging, self-inflicted tattoos, self-biting, scraping, ingesting scrap material, inserting objects, self-inflicted piercing, and hair pulling (Glenn & Klonsky, 2009; Simeon & Hollander, 2001; Conterio & Lader, 1998; Alderman, 1997; Walsh & Rosen, 1988; Favazza, 1987), whereas Native Americans from the current study also engaged in some of the same NSSI behaviors just listed, but at a reduced rate. While the most common forms of NSSI behaviors found in the mainstream population followed, it is possible that Native Americans are "more creative" in the self-harming behaviors they engage in or what Native Americans consider deliberate self-harm is somewhat different than the traditional forms of self-injury. For example, Native Americans may view certain traditional ceremonial practices forms of self-injury (i.e. piercings at a Sundance). Or on the other hand, they might also not consider "typical" forms of suicidal ideation as self-injury because they are traditional practices (carving, inserting objects, etc.).

It was hypothesized there would be a significant interaction between direct or indirect exposure and the different types of exposure (no exposure, exposure to self-injury, exposure to attempted suicide, and exposure to completed suicide) and suicidal ideation, but there was not a significant interaction. This implies that the different types of exposure to indirect or direct exposure was not a significant predictor of participants urge to engage in self-injury. The current results suggest that one's mood or level of depression is the strongest predictor of whether or not a participant is likely to engage in NSSI. The current results only looked at exposure types, direct or indirect exposure, and the likelihood of self-injury, but did not explore the influence of indirect or indirect exposure and the different types of exposure on thoughts of suicide. It is possible that future studies may find the impact of exposure (direct or indirect) and the different types of exposure to be more significant and influential on thoughts of suicide, which is an unexplored area of Native American research.

When exposure and the level of depression are accounted for among the frequency of self-injury, the results were more imperative. Exposure alone was a predictor of suicidal ideation, but as mentioned before, mood is the most important factor to consider when assessing self-injury; at least no other research with the Native American population has shown otherwise. The most influential combination of exposure and depression was the interaction of individuals exposed to completed suicide and being moderately to severely depressed. The participants who fit this criterion have engaged in almost four self-harming behaviors. Participants endorsed just over two forms of self-injury when they were mildly depressed and exposed to an attempted suicide. Individuals exposed to an attempted suicide and who were moderately to severely depressed were at

risk to engage in almost two acts of self-injury. Individual who were moderately to severely depressed engaged in self-harming behaviors equally when exposed to self-injury and at least one attempted suicide. Exposure to self-injury and being mildly depressed was also a risk for two acts of self-injury. On average individuals are likely to endorse at least two forms of self-injury when they are mildly depressed after exposure to self-injury and/or an attempted suicide.

Overall, depression was a significant predictor of self-injury. Individuals with exposure to self-injury and attempted suicide and at least mild depression, increased the frequency of NSSI. When individuals were exposed to completed suicide and were either minimally or mildly depressed, they engaged in less than one act of self-injury. Therefore to a certain extent, it might be a protective factor knowing someone who competed suicide, but as levels of depression increase (moderately to severely) they may not be optimistic enough to and see any opportunity for improvement and view self-injury as their best coping skill. As mentioned above, depressed individuals may want to feel something, even physical pain rather than feeling the depressing and painful emotions, they are currently experiencing.

In general, individuals who are moderately to severely depressed are at the greatest risk of NSSI, regardless of exposure, but if they were exposed to self-injury, attempted suicide, and/or a completed suicide; the intensity of suicidal ideation or ending life is increased. These are the individuals who need to seek mental health counseling. While in therapy or the intake process, therapists who screen for depression, need to score the measures before the client leaves their office and follow-up with questions

about their exposure to self-harming behaviors, attempted suicide, and/or completed suicide, which can be a vital intervention in Native American mental health.

Treatment Implication

It is important to discuss existing treatment options for use with suicidal Native Americans. There are a few treatments used for preventing suicidal behaviors, but fewer specifically aimed at inhibiting and ultimately ceasing self-injury. There are various treatments that can be used to establish stability with suicidal individuals (e.g., Cognitive Behavioral Therapy and Dialectical Behavior Therapy; Krumm, 2007). The number of potentially effective suicide prevention programs designed for Native Americans include Source of Strength (LoMurray, 2007), Yellow Ribbon (Krumm, 2007), American Indian Life Skills Development Curriculum (LaFromboise, 1993), the ASIST Program (http://www.livingworks.net/page/Applied%20Suicide%20Interventions%20Skils%20Training%20), and the Question, Persuade, Refer program (QPR; LeBlanc, 2006). There is only one known suicide prevention program specifically designed to prevent suicide among Native American youth (Muehlenkamp, Marrone, Gray, & Brown, 2009). However, the curriculum for the suicide prevention programs and treatment interventions are likely to help reduce self-harming behaviors because they incorporate and highlight strengths and values.

Gatekeeper programs are also important, such as the Sources of Strength program. This program was designed specifically for Northern Plains Native American youth to help students establish support systems, recognize and reconnect with successful support networks from the past, as well as build new support systems (LoMurray, 2007). Furthermore, the Zuni Life Skills Development Program is a school/community-based

suicide prevention intervention that provides strategies that integrate cultural and community values and strengths. Research also indicates that the Zuni Life Skills program reduces hopelessness and suicidal ideation and improves students' abilities to intervene in peer suicidality, especially in crises (LaFromboise & Lewis, 2008). Muehlenkamp and colleagues (2009) also developed a prevention model that incorporates communication among Native Americans as well as increases their cultural prominence and support resources.

The American Life Skills Development Curriculum is a school-based, culturally tailored, suicide prevention program used for Native American adolescence. This treatment modality focuses on Native American norms, values, beliefs, and attitudes. It is designed to build self-esteem, identify emotions of stress, increase communication, problem-solving skills, and recognize and eliminate destructive behaviors (drug and alcohol abuse). Individuals who attend and participate in this treatment prevention will leave with information on suicide, suicide prevention training, and have set personal and community mental health goals (LaFromboise, 1993).

Another common treatment intervention for Native Americans is the Question, Persuade, and Refer (QPR) Program, which teaches ways to identify warning signs of suicide and crisis and then question, persuade, and refer individuals for help. It is designed to be a tool to detect and prevent individuals from attempting suicide (LeBlanc, 2006). According to Wyman and colleagues (2008), research indicates that increased knowledge of risk factors and attitudes of suicide detected using the QPR model is sufficient to prepare most adults to respond to suicidal ideation and provide appropriate referrals.

The U.S. Department of Health (2010), suggests considering implementing a post-intervention component as part of an overall suicide prevention planning agenda. The CDC recommends general guidelines for preventing suicidal ideation contagion. Important factors of the guidelines suggested by the CDC include avoiding glorifying suicides, offering support to family and friends of victims, identify at-risk relatives and friends and offer counseling, and include the support of the media. . The Suicide Prevention Resource Center (SPRC, 2007) recommends that media reports of suicide avoid detailed descriptions of the suicide, tributes by friends and family of individuals who died by suicide, glamorizing celebrity suicides, over simplifying the cause of suicide and presenting them as inexplicable or unavoidable, overstating the frequency of suicide, and using words such as "committed suicide" or "failed" or "successful" suicide attempt. Instead the SPRC recommends media reports of suicide focus on providing information and referral phone numbers for local crisis intervention services and emphasize recent treatment advancements for depression and other mental illnesses, decreasing trends in national suicide rates of the past decade, and actions communities can take to prevent suicide. It is also suggested that an interview from a local mental health professional who is knowledgeable about suicide and the role of treatment for mental health disorders could be beneficial (SPRC, 2007). It is also strongly encouraged that communities develop their own response (develop community crisis teams) before suicidal ideation contagion occurs (U.S. Department of Health and Human Services, 2010).

Limitations of Current Study

A few limitations of the present study merit consideration. The mean age of the sample was 36.57 years old and the largest portion of the suicidal ideation research has

been conducted on adolescents and young adults. Thus, it may be that a very healthy adult sample of Native Americans completed the study, limiting the ability to examine potential suicide risk and protection. The low depression scores of the participants in this study support this possibility.

Another important limitation is that all data for the study was based on self-report questionnaires, thus limitations of this method apply. Because of the self-report nature of the questionnaires, it is possible that some response bias may have occurred, considering all areas of the study (suicidal ideation, suicide, depression, and hopelessness), which are sensitive and potentially stigmatizing behaviors. There may have also been concern about ramifications of reporting suicidal ideation since participants were informed of the potential risks at the start of the study. Participant fatigue may have also played a role since participants completed several questionnaires in a short time period.

Last of all, there were some methodological limitations. At the time the study was being developed, there was no instrument available to assess contagion effects of suicidal ideation and suicide and the primary investigator needed to create questions about exposure to suicidal ideation and suicide. The questions used to assess exposure are not statistically reliable and valid, in regards to a researched instrument. For future studies of contagion of self-harming and suicidal behaviors it may be wise to develop a reliable and valid measure of exposure and contagion effects.

Future Research

In future research, it would be important to get more detailed information regarding participants' current or prior mental health. If participants' have sought help in the past or are currently receiving behavior health interventions, then what was their

diagnosis and what kind of treatment (individual therapy, group therapy, and/or psychiatry) did/do they receive? Since a history of physical, sexual, and/or emotional abuse has shown to be a risk factor for suicide and self-injury, knowing if they have a trauma history would be important to determine if that factor influenced exposure, self-injury, and/or suicide. A history of hospitalization for psychological purposes would also be helpful to determine the severity of any psychological factors that may influence Native Americans' susceptibility to self-harming behaviors.

A replicated version of the current study would be interesting if done on children and adolescents since self-injury appears to be a relatively new behavior. It appears NSSI has only gained attention in the last 20 years or so. If the study were done with younger generations, it would be important to know whether individuals who engaged in self-injury performed the behaviors in isolation or with a group of friends. This questions takes into account the importance of friends and the social identity theory where the desire to belong is an important aspect of one's identity. Knowing specifically about the importance of group membership might help clarify hypotheses about suicidal ideation contagion.

A few other questions that would have been important to explore would focus on individuals who have been exposed to both suicide and self-injury and if that combination makes individuals more susceptible to deliberate self-harm. In addition, it would also be essential to know if those same individuals who were exposed to suicide and self-harming behaviors were direct, indirect, or a combination of direct and indirect exposures throughout one's lifetime. If individuals were exposed to self-injury and/or suicide, then how many self-injuries and suicides were they exposed to? Furthermore,

adding the question about how often one thinks about self-harming behaviors after exposure to other self-harming behaviors and/or suicide would also provide imperative information.

Lastly, because the highest frequency of self-harming behaviors was among individuals who endorsed the catchall category, it would be important for participants to specify what they considered deliberate self-injury. So, adding the question, "What have you done to deliberately harm your body that was not previously listed?"

Conclusion

In sum, the current study found that depression is a significant predictor of self-harming behaviors. When exposure and the level of depression are accounted for among the frequency of self-injury, the results were important. Exposure alone was a predictor of suicidal ideation, but as mentioned before, mood is the most important factor to consider when assessing self-injury; at least no other research with the Native American population has shown otherwise. Overall, exposure and depression were important in predicting self-harming behaviors, but thoughts of suicide and gender were not influential factors as expected. The most influential combination was the interaction of exposure and depression. Participants exposed to completed suicide and being moderately to severely depressed increased the likelihood of participants participation in NSSI. The participants who fit this criterion have engaged in almost four self-harming behaviors. Individuals with exposure to self-injury and attempted suicide and mildly, moderately, and severely depressed, the frequency of NSSI increases. Therefore to a certain extent, it might be a protective factor knowing someone who completed suicide, but as levels of depression

increase (moderately to severely), they may not be hopeful enough to see any chance for improvement and view self-injury as the answer.

In conclusion, individuals who are moderately to severely depressed are at the greatest risk of NSSI, therefore these individuals who seek mental health counseling, need to be thoroughly screened for experience and exposure with self-harm, attempted suicide, and/or completed suicide. While in therapy or the intake process, therapists who screen for depression, need to score the depression measure before the client leaves their office so the therapist can follow-up and assess their current level of stability, thoughts, and behaviors regarding self-injury. The various treatment interventions listed above are likely to help reduce self-harming behaviors because they incorporate and highlight strengths and values. Knowing this one important piece of information can be a vital intervention in Native American mental health.

APPENDIX A

INFORMED CONSENT FORM

The researchers conducting this study are Jeri Ann Azure, M.A., a graduate student in the Department of Psychology at the University of North Dakota, and Dr. Alan King, Ph.D., a professor in the Department of Psychology. The purpose of this research is to gather information about the social factors that may relate to and possibly prevent self-harming behaviors among Native Americans.

If you wish to take part in this study, you must be at least 18 years old. You will be asked to complete a single questionnaire with multiple parts. Many of the questions on these questionnaires are of a very personal nature, questionnaires will ask about current and past suicidal thoughts and experiences and depression. Please feel free to leave blank any questions that you are not comfortable answering. This study should last no longer than 15 minutes. To compensate your time, you will be entered into a drawing for $10 and $20 Wal-Mart gift cards.

All data collected in experimental testing sessions will remain confidential and will be used for research purposes only. The only individuals with access to the data will be trained researchers and individuals who audit IRB procedures. There will be no link between the consent form and the survey instruments. The online consent forms require only that the participant agree to participate. The online survey will be completely anonymous. This includes the exclusion of the collection of the IP address from the computer. You will be provided with a copy of this consent form to retain for your records. The online data will be stored on SurveyGizmo servers until the completion of the data collection. At that time, the data will be downloaded and erased from SurveyGizmo. The data will be stored on a Jump Drive and kept in a locked file cabinet for a period of three years. All data will be destroyed after three years. At the end of this three year period the data will be destroyed.

The primary benefit of participating in this study is gaining experience in the process of scientific research. On a broader scale, it is expected that this study will benefit the larger field of clinical psychology by providing a more detailed understanding of depression, self-harming behaviors, and suicidality in Native Americans.

Potential risks to individuals who participate in this study include emotional discomfort or distress while answering questions about the topic of depression, suicidal ideation, and contagion of Native Americans. Since the topic of interest is self-harming behavior it is possible that individuals may engage in this type of behavior when experiencing emotional distress. Research participants wil be provided with a list of mental health service providers and encouraged to

contact a provider if he or she experiences high levels of emotional distress. Any cost associated with such counseling will be solely the participant's responsibility. A listing of the mental health providers can be found on the last page of the survey. A list of local, regional, and national mental health service resources from which you can receive psychological services at no cost will be provided to any study participant upon request. You are free to discontinue your participation in the study at any point with no penalty whatsoever.

If you have any questions or concerns about this research please do not hesitate to call Jeri Ann Azure at (701) 278-4628 or by e-mail at: jeri.azure@und.edu or Dr. Alan King at (701) 777-4496. If you have other questions or concerns, you may call UND's Institutional Review Board at (701) 777-4279. Thank you for your time, your signature below indicates that you read this consent form and voluntarily agree to participate.

_____

Participant Name (please print)

_____ _____

Participant Signature Date

APPENDIX B

DEMOGRAPHIC AND INFORMATION QUESTIONNAIRE

Age_____

Gender (Check one): Male_____ Female_____

Culture Identification:

_____American Indian: What tribe do you belong to?_____

Current class ranking (Check ONLY one):

_____Freshman in College

_____Sophomore in College

_____Junior in College

_____Senior in College

_____Graduate School

_____Other (Please specify):_____

_____Not a Student

What town/city do you live in?

_____

APPENDIX C

DELIBERATE SELF-HARM INVENTORY

This questionnaire asks about a number of different things that people sometimes do to hurt themselves. Please be sure to read each question carefully and respond honestly. Often, people who do these kinds of things to themselves keep it a secret, for a variety of reasons. However, honest responses to these questions will provide us with greater understanding and knowledge about these behaviors and the best way to help people. Please answer yes to a question only if you did the behavior intentionally, or on purpose, to hurt yourself. Do not respond yes if you did something accidentally (e.g., you tripped and banged you head on accident). Also, please be assured that your responses are completely confidential.

1. Have you ever intentionally (i.e., on purpose) cut your wrist, arms, or other area(s) of your body (without intending to kill yourself)? (circle one): 1. Yes 2. No

If yes,

How old were you when you first did this? _____

How many times have you done this? (please place a check by **ONE** of the following)

__1 time __2 times

__3 times __4 times

__5 times __6 or more times

When was the last time you did this (please place a check by ONE of the following)

__ Within the past 2 weeks __ 4 months to less than 5 months ago

__ 3-4 weeks ago __ 5 months to less than 6 months ago

__ More 1 month but less than 2 months ago __ 6 months to less than 9 months ago

__ 2 months to less than 3 months ago

__ 9 to 12 months ago

__ 3 months to less than 4 months ago

__ More than 12 months ago

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) **Please write the actual number of years you engaged in this behavior.** _____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? 1. Yes 2. No

2. Have you ever intentionally (i.e., on purpose) burned yourself with a cigarette, lighter, or match ? (circle one): 1. Yes 2. No

If yes,

How old were you when you first did this? _____

How many times have you done this? (please place a check by **ONE** of the following)

__1 time

__2 times

__3 times

__4 times

__5 times

__6 or more times

When was the last time you did this (please place a check by ONE of the following)

__ Within the past 2 weeks

__ 4 months to less than 5 months ago

__ 3-4 weeks ago

__ 5 months to less than 6 months ago

__ More 1 month but less than 2 months ago

__ 6 months to less than 9 months ago

__ 2 months to less than 3 months ago

__ 9 to 12 months ago

__ 3 months to less than 4 months ago

__ More than 12 months ago

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) **Please write the actual number of years you engaged in this behavior.** _____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? 1. Yes 2. No

3. Have you ever intentionally (i.e., on purpose) carved words into your skin? (circle one):

1. Yes 2. No

If yes,

How old were you when you first did this? _____

How many times have you done this? (please place a check by **ONE** of the following)

__1 time __2 times

__3 times __4 times

__5 times __6 or more times

When was the last time you did this (please place a check by ONE of the following)

__ Within the past 2 weeks __ 4 months to less than 5 months ago

__ 3-4 weeks ago __ 5 months to less than 6 months ago

__ More 1 month but less than 2 months ago __ 6 months to less than 9

__ 2 months to less than 3 months ago __ 9 to 12 months ago

__ 3 months to less than 4 months ago __ More than 12 months ago

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) **Please write the actual number of years you engaged in this behaviors.**_____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? 1. Yes 2. No

4. Have you ever intentionally (i.e., on purpose) carved pictures, designs, or other marks into your skin? (circle one): 1. Yes 2. No

If yes,

How old were you when you first did this? _____

How many times have you done this? (please place a check by **ONE** of the following)

__1 time __2 times

__3 times __4 times

__5 times __6 or more times

When was the last time you did this (please place a check by ONE of the following)

__ Within the past 2 weeks __ 4 months to less than 5 months ago

__ 3-4 weeks ago __ 5 months to less than 6 months ago

__ More 1 month but less than 2 months ago __ 6 months to less than 9 months ago

__ 2 months to less than 3 months ago __ 9 to 12 months ago

__ 3 months to less than 4 months ago __ More than 12 months ago

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) **Please write the actual number of years you engaged in this behavior.** _____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? 1. Yes 2. No

5. Have you ever intentionally (i.e., on purpose) severely scratched yourself, to the extent that scarring or bleeding occurred? (circle one): 1. Yes 2. No

If yes,

How old were you when you first did this? _____

How many times have you done this? (please place a check by **ONE** of the following)

__1 time __2 times

__3 times __4 times

__5 times __6 or more times

When was the last time you did this (please place a check by ONE of the following)

__ Within the past 2 weeks __ 4 months to less than 5 months ago

__ 3-4 weeks ago __ 5 months to less than 6 months ago

__ More 1 month but less than 2 months ago __ 6 months to less than 9 months ago

__ 2 months to less than 3 months ago __ 9 to 12 months ago

__ 3 months to less than 4 months ago __ More than 12 months ago

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) **Please write the actual number of years you engaged in this behavior.**_____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? 1. Yes 2. No

6. Have you ever intentionally (i.e., on purpose) bit yourself, to the extent that you broke the skin? (circle one): 1. Yes 2. No

If yes,

How old were you when you first did this? _____

How many times have you done this? (please place a check by **ONE** of the following)

__1 time __2 times

__3 times __4 times

__5 times __6 or more times

When was the last time you did this (please place a check by ONE of the following)

__ Within the past 2 weeks __ 4 months to less than 5 months ago

__ 3-4 weeks ago __ 5 months to less than 6 months ago

__ More 1 month but less than 2 months ago __ 6 months to less than 9 months ago

__ 2 months to less than 3 months ago __ 9 to 12 months ago

__ 3 months to less than 4 months ago __ More than 12 months ago

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) **Please write the actual number of years you engaged in this behavior.** _____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? 1. Yes 2. No

7. Have you ever intentionally (i.e., on purpose) rubbed sandpaper on your body? (circle one):

1. Yes 2. No

If yes,

How old were you when you first did this? _____

How many times have you done this? (please place a check by **ONE** of the following)

__1 time __2 times

__3 times __4 times

__5 times __6 or more times

When was the last time you did this (please place a check by ONE of the following)

__ Within the past 2 weeks __ 4 months to less than 5 months ago

__ 3-4 weeks ago __ 5 months to less than 6 months ago

__ More 1 month but less than 2 months ago

__ 6 months to less than 9 months ago

__ 2 months to less than 3 months ago

__ 9 to 12 months ago

__ 3 months to less than 4 months ago

__ More than 12 months ago

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) **Please write the actual number of years you engaged in this behavior.** _____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? 1. Yes 2. No

8. Have you ever intentionally (i.e., on purpose) dripped acid onto your skin? (circle one):

1. Yes 2. No

If yes,

How old were you when you first did this? _____

How many times have you done this? (please place a check by **ONE** of the following)

__1 time

__2 times

__3 times

__4 times

__5 times

__6 or more times

When was the last time you did this (please place a check by ONE of the following)

__ Within the past 2 weeks

__ 4 months to less than 5 months ago

__ 3-4 weeks ago

__ 5 months to less than 6 months ago

__ More 1 month but less than 2 months ago

__ 6 months to less than 9 months ago

__ 2 months to less than 3 months ago

__ 9 to 12 months ago

__ 3 months to less than 4 months ago

__ More than 12 months ago

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) **Please write the actual number of years you engaged in this behavior.** _____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? 1. Yes 2. No

9. Have you ever intentionally (i.e., on purpose) used bleach, comet, or oven cleaner to scrub your skin? (circle one): 1. Yes 2. No

If yes,

How old were you when you first did this? _____

How many times have you done this? (please place a check by **ONE** of the following)

__1 time __2 times

__3 times __4 times

__5 times __6 or more times

When was the last time you did this (please place a check by ONE of the following)

__ Within the past 2 weeks __ 4 months to less than 5 months ago

__ 3-4 weeks ago __ 5 months to less than 6 months ago

__ More 1 month but less than 2 months ago __ 6 months to less than 9 months ago

__ 2 months to less than 3 months ago __ 9 to 12 months ago

__ 3 months to less than 4 months ago __ More than 12 months ago

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) **Please write the actual number of years you engaged in this behavior.** _____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? 1. Yes 2. No

10. Have you ever intentionally (i.e., on purpose) stuck sharp objects such as needles, pins, staples, etc. into your skin, **not including** tattoos, ear piercing, needles used for drug use, or body piercing? (circle one) 1. Yes 2. No

If yes,

How old were you when you first did this? _____

How many times have you done this? (please place a check by **ONE** of the following)

__1 time __2 times

__3 times __4 times

__5 times __6 or more times

When was the last time you did this (please place a check by ONE of the following)

__ Within the past 2 weeks __ 4 months to less than 5 months ago

__ 3-4 weeks ago __ 5 months to less than 6 months ago

__ More 1 month but less than 2 months ago __ 6 months to less than 9 months ago

__ 2 months to less than 3 months ago __ 9 to 12 months ago

__ 3 months to less than 4 months ago __ More than 12 months ago

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) **Please write the actual number of years you engaged in this behavior.** _____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? 1. Yes 2. No

11. Have you ever intentionally (i.e., on purpose) rubbed glass into your skin? (circle one):

1. Yes 2. No

If yes,

How old were you when you first did this? _____

How many times have you done this? (please place a check by **ONE** of the following)

__1 time __2 times

__3 times __4 times

__5 times __6 or more times

When was the last time you did this (please place a check by ONE of the following)

__ Within the past 2 weeks __ 4 months to less than 5 months ago

__ 3-4 weeks ago __ 5 months to less than 6 months ago

__ More 1 month but less than 2 months ago __ 6 months to less than 9 months ago

__ 2 months to less than 3 months ago __ 9 to 12 months ago

__ 3 months to less than 4 months ago __ More than 12 months ago

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) **Please write the actual number of years you engaged in this behavior.** _____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? 1. Yes 2. No

12. Have you ever intentionally (i.e., on purpose) broken your own bones? (circle one):

1. Yes 2. No

If yes,

How old were you when you first did this? _____

How many times have you done this? (please place a check by **ONE** of the following)

__1 time __2 times

__3 times __4 times

__5 times __6 or more times

When was the last time you did this (please place a check by ONE of the following)

__ Within the past 2 weeks __ 4 months to less than 5 months ago

__ 3-4 weeks ago __ 5 months to less than 6 months ago

__ More 1 month but less than 2 months ago __ 6 months to less than 9 months ago

__ 2 months to less than 3 months ago __ 9 to 12 months ago

__ 3 months to less than 4 months ago __ More than 12 months ago

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) **Please write the actual number of years you engaged in this behavior.** _____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? 1. Yes 2. No

13. Have you ever intentionally (i.e., on purpose) banged your head against something, to the extent that you caused a bruise to appear? (circle one): 1. Yes 2. No

If yes,

How old were you when you first did this? _____

How many times have you done this? (please place a check by **ONE** of the following)

__1 time __2 times

__3 times __4 times

__5 times __6 or more times

When was the last time you did this (please place a check by ONE of the following)

__ Within the past 2 weeks __ 4 months to less than 5 months ago

__ 3-4 weeks ago __ 5 months to less than 6 months ago

__ More 1 month but less than 2 months ago

__ 6 months to less than 9 months ago

__ 2 months to less than 3 months ago

__ 9 to 12 months ago

__ 3 months to less than 4 months ago

__ More than 12 months ago

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) **Please write the actual number of years you engaged in this behavior.** _____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? 1. Yes 2. No

14. Have you ever intentionally (i.e., on purpose) punched yourself or another object, to the extent that you caused a bruise to appear? (circle one): 1. Yes 2. No

If yes,

How old were you when you first did this? _____

How many times have you done this? (please place a check by **ONE** of the following)

__1 time

__2 times

__3 times

__4 times

__5 times

__6 or more times

When was the last time you did this (please place a check by ONE of the following)

__ Within the past 2 weeks

__ 4 months to less than 5 months ago

__ 3-4 weeks ago

__ 5 months to less than 6 months ago

__ More 1 month but less than 2 months ago

__ 6 months to less than 9 months ago

__ 2 months to less than 3 months ago

__ 9 to 12 months ago

__ 3 months to less than 4 months ago

__ More than 12 months ago

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) **Please write the actual number of years you engaged in this behavior.** _____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? 1. Yes 2. No

15. Have you ever intentionally (i.e., on purpose) prevented wounds from healing? (circle one):

1. Yes 2. No

If yes,

How old were you when you first did this? _____

How many times have you done this? (please place a check by **ONE** of the following)

__1 time __2 times

__3 times __4 times

__5 times __6 or more times

When was the last time you did this (please place a check by ONE of the following)

__ Within the past 2 weeks __ 4 months to less than 5 months ago

__ 3-4 weeks ago __ 5 months to less than 6 months ago

__ More 1 month but less than 2 months ago __ 6 months to less than 9 months ago

__ 2 months to less than 3 months ago __ 9 to 12 months ago

__ 3 months to less than 4 months ago __ More than 12 months ago

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) **Please write the actual number of years you engaged in this behavior.** _____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? 1. Yes 2. No

16. Have you ever intentionally (i.e., on purpose) done anything else to hurt yourself that was not asked about in this questionnaire? (circle one): 1. Yes 2. No

If yes,

What did you do? _____

How old were you when you first did this? _____

How many times have you done this? (please place a check by **ONE** of the following)

__1 time __2 times

__3 times __4 times

__5 times __6 or more times

When was the last time you did this (please place a check by ONE of the following)

__ Within the past 2 weeks __ 4 months to less than 5 months ago

__ 3-4 weeks ago __ 5 months to less than 6 months ago

__ More 1 month but less than 2 months ago __ 6 months to less than 9 months ago

__ 2 months to less than 3 months ago __ 9 to 12 months ago

__ 3 months to less than 4 months ago __ More than 12 months ago

How many years have you been doing this? (If you are no longer doing this, how many years did you do this before you stopped?) **Please write the actual number of years you engaged in this behavior.** _____

Has this behavior ever resulted in hospitalization or injury severe enough to require medical treatment? 1. Yes 2. No

Did you harm yourself (i.e. Did you do any of the acts you listed above) for any of the reasons listed below? (Check all reasons that apply):

0 Never	1 Rarely	2 Some	3 Often

Reasons:	Rating
1. to avoid school, work, or other activities	
2. to relieve feeling "numb" or empty	
3. to get attention	
4. to feel something, even if it was pain	
5. to avoid having to do something unpleasant you don't want to do	
6. to get control of a situation	
7. to try to get a reaction from someone, even if its a negative reaction	
8. to receive more attention from your parents or friends	
9. to avoid being with people	
10. to punish yourself	
11. to be like someone you respect	
12. to avoid punishment or paying the consequences	

13. to stop bad feelings	
14. to let others know how desperate you were	
15. to feel more a part of a group	
16. to get your parents to understand or notice you	
17. to give yourself something to do when alone	
18. to give yourself something to do when with others	
19. to get help	
20. to make others angry	
21. to feel relaxed	
22. other:	

APPENDIX D

DIRECT/INDIRECT EXPOSURE

If you were ever exposed to another individual's self-harming behaviors, suicide attempt, and/or completed suicide please indicate all that apply. Please indicate their outcome.

_____**Self-Harmed** (Cutting, carving, burning, etc.)

_____**Attempted Suicide** (attempted suicide but did not die)

_____**Completed Suicide** (died by suicide)

_____**Never exposed to self-harming behaviors, suicide attempt, and/or completed suicide**

How did you know the individual?

_____**Directly knew individual** (family, friends, spouse, other close individuals, etc.)

_____**Indirectly knew individual** (media, heard of suicidal ideators actions through community and did not personally know them, etc.)

_____**Never knew a person who engaged in self-harming behaviors, attempted suicide, and/or completed suicide**

How long did you know the individual who engaged in the self-harming behaviors, suicide attempt, and/or completed suicide?

_____**Less than 1 month**

_____**3 Months**

_____**6 Months**

_____**1 Year**

_____**More than 1 year**

_____**Never knew an individual who engaged in self-harming behaviors, attempted suicide, and/or completed suicide**

APPENDIX E

BDI-II

Instructions: This questionnaire consists of 21 groups of statements. Please read each group of statements carefully, and then pick out the one statement in each group that best describes the way you have been feeling during the past two weeks, including today. Circle the number beside the statement you have picked. If several statements in the group seem to apply equally well, circle the highest number for that group. Be sure that you do not choose more than one statement for any group

1. Sadness

0 I do not feel sad.

1 I feel sad much of the time.

2 I am sad all the time.

3 I am so sad or unhappy that I can't stand it.

2. Pessimism

0 I am not discouraged about my future.

1 I feel more discouraged about my future than I used to be.

2 I do not expect things to work out for me.

3 I feel my future is hopeless and will only get worse.

3. Past Failure

0 I do not feel like a failure.

1 I have failed more than I should have.

2 As I look back, I see a lot of failures.

3 I feel I am a total failure as a person.

4. Loss of Pleasure

0 I get as much pleasure as I ever did from the things I enjoy.

1 I don't enjoy things as much as I used to.

2 I get very little pleasure from the things I used to enjoy.

3 I can't get any pleasure from the things I used to enjoy.

5. Guilty Feelings

0 I don't feel particularly guilty.

1 I feel guilty over many things I have done or should have done.

2 I feel quite guilty most of the time.

3 I feel guilty all of the time.

6. Punishment Feelings

0 I don't feel I am being punished.

1 I feel I may be punished.

2 I expect to be punished.

3 I feel I am being punished.

7. Self-Dislike

0 I feel the same about myself as ever.

1 I have lost confidence in myself.

2 I am disappointed in myself.

3 I dislike myself.

8. Self-Criticalness

0 I don't criticize myself or blame or blame myself more than usual.

1 I am more critical of myself than I used to be.

2 I criticize myself for all my faults.

3 I blame myself for everything bad that happens.

9. Suicidal Thoughts or Wishes

0 I don't have any thoughts of killing myself.

1 I have thoughts of killing myself, but I would not carry them out.

2 I would like to kill myself.

3 I would kill myself if I had the chance.

10. Crying

0 I don't cry anymore than I used to.

1 I cry more than I used to.

2 I cry over every little thing.

3 I feel like crying, but I can't.

11. Agitation

0 I am no more restless or wound up than usual.

1 I feel more restless of wound up than usual.

2 I am so restless or agitated that it's hard to sit still.

3 I am so restless or agitated that I have to keep moving or do something.

12. Loss of Interest

0 I have not lost interest in other people or activities.

1 I am less interested in other people or things than before.

2 I have lost most of my interest in other people or things.

3 It's hard to get interested in anything.

13. Indecisiveness

0 I make decisions about as well as ever.

1 I find it more difficult to make decisions than usual.

2 I have much greater difficulty in making decisions than I used to.

3 I have trouble making any decisions.

14. Worthlessness

0 I do not feel I am worthless.

1 I don't consider myself as worthwhile and useful as I used to.

2 I feel more worthless as compared to other people.

3 I feel utterly worthless.

15. Loss of Energy

0 I have as much energy as ever.

1 I have less energy than I used to have.

2 I don't have enough energy to do very much.

3 I don't have enough energy to do anything.

16. Changes in Sleep Pattern

0 I have not experienced any change in my sleeping pattern.

1a I sleep somewhat more than usual.

1b I sleep somewhat less than usual.

2a I sleep a lot more than usual.

2b I sleep a lot less than usual.

3a I sleep most of the day.

3b I wake up 1-2 hours early and can't get back to sleep.

17. Irritability

0 I am no more irritable than usual.

1 I am more irritable than usual.

2 I am much more irritable than usual.

3 I am irritable all the time.

18. Changes in Appetite

0 I have not experienced any change in my appetite.

1a My appetite has been somewhat less than usual.

1b My appetite has been somewhat greater than usual.

2a My appetite is much less than usual.

2b My appetite is much greater than usual.

3a I have no appetite at all.

3b I crave food all the time.

19. Concentration Difficulty

0 I can concentrate as well as ever.

1 I can't concentrate as well as usual.

2 It's hard to keep my mind on anything for very long.

3 I find I can't concentrate on anything.

20. Tiredness or Fatigue

0 I am no more tired or fatigued than I used to be.

1 I get more tired or fatigued more easily than usual.

2 I am too tired or fatigued to do a lot of the things I used to.

3 I am too tired or fatigued to do most of the things I used to do.

21. Loss of Interest in Sex

0 I have not noticed any recent changes in my interest in sex.

1 I am less interested in sex than I used to be.

2 I am much less interested in sex now.

3 I have lost interest in sex completely.

APPENDIX F

BHS

The questionnaire consists of 20 statements. Please read the statements carefully one by one. If the statement describes your attitude for the **past week including today,** circle the "T" indicating TRUE in the column next to the statement. If the statement does not describe your attitude, circle the "F" indicating FALSE in the column next to this statement. **Please be sure to read each statement carefully.**

1. I look forward to the future with hope and enthusiasm.	T	F
2. I might as well give up because there is nothing I can do about making things better for myself.	T	F
3. When things are going badly, I am helped by knowing that they cannot stay that way forever.	T	F
4. I can't imagine what my life would be like in ten years.	T	F
5. I have enough time to accomplish the things I want to do.	T	F
6. In the future, I expect to succeed in what concern me most.	T	F
7. My future seems dark to me.	T	F
8. I happen to be particularly lucky, and I expect to get more of the good things in life than the average person.	T	F
9. I just can't get the breaks, and there's no reason I will in the future.	T	F
10. My past experiences have prepared me well for the future.	T	F
11. All I can see ahead of me is unpleasantness rather than pleasantness.	T	F
12. I don't expect to get what I really want.	T	F

13. When I look ahead to the future, I expect that I will be happier than I am now. T F

14. Things just won't work out the way I want them to. T F

15. I have great faith in the future. T F

16. I never get what I want, so it's foolish to want anything. T F

17. It's very unlikely that I will get any real satisfaction in the future. T F

18. The future seems vague and uncertain to me. T F

19. I can look forward to more good times than bad times. T F

20. There's no use in really trying to get anything I want because I probably won't get it. T F

APPENDIX G

WE CARE ABOUT YOU AND YOUR FAMILY

It is common for people to have uncomfortable thoughts or feelings when talking about some of the issues in this survey. Your reactions may be mild or intense.

During or after the questions you or your loved ones may like to talk with someone. Area resources are listed below. We would be happy to help you contact any of these resources if you wish. We are firmly committed to our policy of confidentiality, so, if you decide to seek help for yourself or your family, your decision would be kept confidential.

RESOURCES

Location	Program	Phone	Contact Persons
Belcourt	Turtle Mountain Counseling/Rehab Ctr.	(701)477-3121	Terry Jerome
Belcourt	Quentin N. Burdick Memorial Health Care Facility-Human Services	(701)477-8658 or (701)477-6111	
Belcourt	Turtle Mountain Suicide Prevention Program	(701)244-0199	Claudette McCloud
Bismarck	United Tribes Educational Tech Center	(701)255-3285 Ext. 1210	Russell Gillette
Bismarck	West Central Human Service Center	(701)328-8888	

Dickinson	Badlands Human Service Center	(701)227-7515	
Devil's Lake	Lake Region Human Service Center	(701)665-2200	
Fargo	South East Human Service Center	(701)298-4500 888-342-4900	
Fort Totten	Spirit Lake Nation Recover & Wellness Center – Residential	(701)766-4285	Evelyn Cavanaugh
Fort Totten	Spirit Lake Health Center-Mental Health	(701)766-1613 or (701)766-1600	
Fort Yates	Comp. Chemical Prevention Program	(701)854-7219	Duane Silk
Fort Yates	Standing Rock Indian Hospital-Mental Health	(701)854-8227 or (701)854-3831	
Grand Forks	Northeast Human Service Center	(701)795-3000	
Jamestown	South Central Human Service Center	(701)253-6300	
Minot	North Central Human Service Center	(701)857-8500 888-470-6968	
New Town	Circle of Life	(701)627-4700	Belinda Beston

New Town	Minne Tohl Health Center-Mental Health	(701)627-2979 or (701)627-4701	
Trenton	Native American Resource Center	(701)774-9876	Joe McGillis
Williston	Northwest Human Service Center	(701)774-4600 C: (701)572-9111 800-231-7724	

National Council of Urban Indian Health

Location	Program	**Phone**	**Contact Persons**
Maryland	Native American Lifelines (NIAAA Program) 106 West Clay Ave. Baltimore, MD 21201 www.nativeamericanlifelines.com	(410) 837-2258	Shelly Wiechelt
Massachusetts	North American Indian Center of Boston 105 South Huntington Ave. Jamaica Plains, MA 02130 www.naicob.org	(617) 232-0343	
New York	American Indian Community House 11 Broadway, 2nd Floor New York, NY 10004-1303 www.aich.org	(212) 598-0100	Marietta Brodhurst Serena Cisneros

Illinois	American Indian Health Services of Chicago Mental Health Clinic 4079 N. Broadway Chicago, IL 60613 www.aihschicago.org	(773) 883-9100	
Minnesota	Indian Health Board of Minneapolis Dr. Patrick Rock, Chief Executive Officer 1715 East 24th Street Minneapolis, MN 55404 www.ihb-mpls.org	(612-721-9868)	
Wisconsin	Gerald L. Ignace Indian Health Center Executive Director 1711 South 11th Street Milwaukee, WI 53204 www.indianhealthcenter.com	(414) 383-9526	
Michigan	American Indian Health and Family Services 4880 Lawndale Detroit, MI 48110 www.aihfs.org	(313)-846-6030	
Nebraska	Nebraska Urban Indian Health Coalition 2240 Landon Court Omaha, NE 68103 www.nuihc.com	(402) 346-0902	
South Dakota	South Dakota Urban Indian Health 1714 Abbey Road Pierre, SD 57501 www.sduih.org	(605) 224-8841 OR Sioux Falls (605)339-0420	
	North American Indian Alliance 55 East Galena Butte, MT 59701	(406) 782-0461	

	www.naia-butte.org		
	Indian Family Health Clinic 1220 Central Avenue, Suite 1B Great Falls, MT 59401 www.indianfamilyhealth.org	(406) 268-1510	
	Helena Indian Alliance 435 N. Last Chance Gulch Helena, MT 59601 www.helenaindianalliance.com	(406) 442-9244	
	Missoula Indian Center Fort Missoula Road, Building 33 Missoula, MT 59808 www.missoulaindiancenter.org	(406) 829-9515 OR 24 Hr. Crisis Hotline (406) 240-3955	
Nevada	Nevada Urban Indians 1475 Terminal Way, Suite B Reno, NV 89502 www.nevadaurbanindians.org	(775) 788-7600 OR 1-888-885-8447	Roy Erickson
Washington	Seattle Indian Health Board 606 12th Avenue South Seattle, WA 98144 www.sihb.org	(206) 324-9360	
	N.A.T.I.V.E. Project 1803 West Maxwell Spokane, WA 99201 www.nativeproject.org	(509) 325-5502	

Oregon	North America Rehabilitation Association (NARA) of the Northwest 1776 SW Madison Portland, OR 97205 www.naranorthwest.org	(503) 224-1044 OR (503) 230-9875	
California	American Indian Health Project Bakersfield 1617 30th Street Bakersfield, CA 93301 www.aihpb.com	(661) 327-4030	
	Native American Health Center 3124 International Blvd. Oakland, CA 94602 www.nativehealth.org	(510) 535-4495	
	Friendship House Assoc. of American Indians 56 Julian Ave. San Francisco, CA 94103 www.friendshiphousesf.org	(415) 865-0964	
	Sacramento Native American Health Center 2020 J Street Sacramento, CA 95814 www.snahc.org	(916) 341-0575	
	Indian Health Center of Santa Clara Valley 602 E Santa Clara St., Suite 200 San Jose, CA 95112 www.indianhealthcenter.org Counseling Prevention Services One With All Program 25 N. 14th St., Suite 140	(408) 445-3400 Ext. 240 (408) 445-3400 Ext. 245	

	San Jose, CA 95112		
	American Indian Health Services 4141 State Street, A-1 Santa Barbara, CA 93110	(805) 681-7356	
	San Diego American Indian Health Center 2602 First Ave., Suite 105 San Diego, CA 92103 www.sdaih.org	(619) 234-0572	
	United American Indian Involvement 1125 West 6th Street, Suite 400 Los Angeles, CA 90017 www.uaii.org	(213) 202-3970	
	Fresno American Indian Health Project 1535 East Shaw Avenue Suite 105 Fresno, CA 93710 www.fresnonativehealth.org	(559) 320-0490	
	Three Rivers Indian Lodge (NIAAA) 13505 Union Road Manteca, CA 95336 www.3riverslodge.org	(209) 858-2421	
Utah	Indian Walk-In Center 120 West 1300 South Salt Lake City, UT 84115 www.indianwalkincenter.org	(801) 486-4877	
Arizona	Native Americans for Community Action 2717 North Steves Blvd., Suite 11 Flagstaff, AZ 86004 www.nacainc.org	(928) 526-2968	Martha Scranton
	Native American Community Health Center 4520 North Central Ave., Suite 620 Phoenix, AZ 85012 www.nativehealthphoenix.org	(602) 279-5262 OR Crisis Hotline (480) 784-1500	Dennis Huff

	Tucson Indian Center 97 E. Congress St. Tucson, AZ 85701 www.ticenter.org	(520) 884-7131	
Texas	Urban Inter-Tribal Center of Texas 209 East Jefferson Blvd. Dallas, TX 75203	(214) 941-1050	
Oklahoma	Oklahoma City Indian Clinic 4913 West Reno Avenue Oklahoma City, OK 73127 www.okcic.com	(405) 948-4900 Ext. 100	
	Indian Health Care Resource Center 550 S. Peoria Tulsa, OK 74120 www.ihcrc.org	(918) 382-1241	
Kansas	Hunter Health Clinic 2318 East Central Wichita, KS 67214 www.hunterhealthclinic.org	(316) 262-3611	
New Mexico	First Nations Community Healthsource 5608 Zuni, SE Albuquerque, NM 87108 www.fnch.org	(505) 262-6520 OR 24 HR. Crisis Hotline (505) 238-7488	
Colorado	Denver Indian Health and Family 1633 Filmore St., Suite GL1 Denver, CO 80206 www.dihfs.org	(303) 781-4050	

TOLL FREE NUMBERS

HELPLine	2-1-1
National Suicide Prevention Talkline	800-273-TALK
	800-273-8255
National Suicide Hotline	800-SUICIDE
	800-784-2433
National Drug Information Treatment and Referral Hotline	800-662-HELP
	800-662-4357
Alcohol Abuse and Crisis Intervention	800-234-0246
Alcohol and Drug Abuse Helpline and Treatment	800-234-0420
Alcohol Hotline Support & Information	800-331-2900

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