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Self-Injury in the Schools: A Survey of School Psychologists

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SELF-INJURY IN THE SCHOOLS: A SURVEY OF SCHOOL PSYCHOLOGISTS

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This investigation explores knowledge, training, and practice issues for school psychologists in working with youth who self-injure. Self-injury (SI) is the socially unaccepted, deliberate, self-inflicted harm of an individual’s body to reduce psychological distress, without the intention to die as a consequence. As SI is viewed as the “the next teen disorder” (Welsh, 2004), school psychologists are increasingly encountering students who self-injure. Thus, it is necessary to determine school psychologists’ ability to respond to youth who self-injure. The purpose of the present study was to conduct a survey of practicing school psychologists to provide information about their knowledge and skills, along with school response plans for SI. The survey obtained a response rate of 6.4% from a random sample of members of the National Association of School Psychologists (NASP). Survey respondents were demographically similar to the NASP demographic with the exception of a lower mean age. On a knowledge measure based on Jeffrey and Warm’s (2002) myths and facts about SI, school psychologists with the Nationally Certified School Psychologist (NCSP) credential evidenced no significantly greater knowledge of SI than school psychologists that do not hold the NCSP credential. In addition, there were no mean differences between the school psychologists with high knowledge of SI from those with low knowledge of SI on their rating of their perceived level of knowledge. However, this sample’s knowledge of SI was comparable to that found by Jeffrey and Warm (2002) for
psychology professionals. Descriptive analysis of the survey items assessing additional factual knowledge about SI further supports concerns about the sample's knowledge base. While the sample has a high knowledge about SI, their knowledge base was not entirely accurate in several areas, most notably contemporary issues such as the media's influence on SI, contagion, and prevalence. In reporting referral rates, 88.9% of participants have had a student referred for SI, with cutting being the most common form. The majority of participants indicated that they were both in need of (93.7%) and interested in training (98.4%) on SI. The last section of the survey examined school districts' responses to SI. Only 7.9% of participants replied that their districts use a plan specifically for addressing SI as recommended by experts in the field (Lieberman & Poland, 2007; Walsh, 2002). Of respondents that use school response plans, 49.2% have not had staff training on SI. A majority of participants (90.5%) have not received any training on how to reduce contagion within their schools. Results indicate a need for more comprehensive crisis management plans for addressing SI and staff training to address basic knowledge of SI along with contemporary influences such as media and contagion. The results are extremely limited in generalizability due to a low response rate (6.4%). A discussion of practical implications for professionals and suggestions for further research follows.
Literature Review

A recent phenomenon noted in the teenage population is the behavior of inflicting superficial injury relatively minor in severity on oneself. This form of self-injury (also referred to as self-inflicted violence, self-mutilation, and cutting), is being noted with increasing frequency in the general population and is receiving increased attention from the media. In the past, self-injury (SI) was something that took place within hospital settings and was an associated feature noted in some clinical disorders, but it has now started to appear more in non-clinical settings. It has moved out of treatment centers and into the classrooms. SI has the potential to be permanently scarring and in some cases fatal. As such, both school and mental health professionals should become acquainted with what is usually a secret problem.

Self-injury has only recently become of concern in non-clinical populations. With this increased concern, professionals who encounter individuals who self-injure are struggling with how to respond appropriately in that they may not distinguish it from the SI associated in clinical populations. Knowledge about this phenomenon is just now becoming widespread in the research and treatment literature. However, research data indicates that mental health professionals have some misconceptions about SI and that individuals who self-injure feel dissatisfaction with the treatment(s) received (e.g., Jeffery & Warm, 2002). School psychologists are seeing greater numbers of students who self-injure. Therefore, it is important that they have the skills to accurately assess and work with these students. However, there has been no research on what training school psychologists have had in this area or how they are dealing with the SI they are encountering in their schools. It is important that professionals receive training on the characteristics of SI and have set crisis management plans in place for dealing with SI in
order for students to receive appropriate care in the schools. The present investigation will address these training and practice issues by obtaining information about the knowledge, skills, and practices of school psychologists.

Definition

Researchers use different terms to describe the behavior of self-injury, including self-mutilation, deliberate self-harm, self-inflicted violence, parasuicidal behavior, and self-wounding. When broadly defined, SI generally involves a range of behaviors from the more severe forms that cause irreversible tissue damage, such as castration and eye enucleation, to the less permanently damaging forms like nail biting and skin picking, which is further discussed in the next section. While different researchers have defined SI in different ways, this investigation will use the following to define self-injury: self-injury is the socially unaccepted, deliberate, self-inflicted harm of an individual's body to reduce psychological distress without the intention to die as a consequence. It is important to note that this definition only covers one class of behaviors categorized as self-injury in the literature, and this moderate form of SI will be the focus of this present investigation. The most frequently reported methods of common self-injury (CSI), the focus of this investigation, include cutting, scratching, or burning one's skin; punching oneself or objects; breaking bones; pulling out hair; picking at scabs in order to interfere with healing; banging body parts on objects; and ingesting harmful material such as bleach (Alderman, 1997; Carlson, DeGreer, & Fenton, 2005; Walsh, 2006). People usually inflict the injury on an area of the body that can easily be covered and hidden by clothing, such as the arms and legs. All of this is done with the intention of physically harming oneself.

As important as defining what SI is, it is also important to note what it is not.
Experts agree that in order for the injury to be SI the person must do it intentionally, not accidentally. SI is also separate and distinct from suicide. An essential feature of the behavior is that it is performed without any intent to die. Favazza (1998) notes the distinction between SI and suicide as someone who attempts suicide is trying to end all feeling, while someone who self-injures is trying to feel better. While some self-injurious behaviors may lead to death or some suicidal behaviors may look similar to SI, they serve two different functions and are thus independent of each other (Derouin & Bravender, 2004; Levenkron, 1998; Simeon & Hollander, 2001; Walsh; 2006; Zila & Kiselica, 2001). However, people who self-injure are more likely to consider or attempt suicide (Whitlock, Powers, & Eckenrode, 2006).

It is also important to note the differences between SI and body alterations, such as tattooing, piercing, or plastic surgery. Self-injury and alteration differ in both means and purpose. SI must be something that one does to his or her own body, as self-infliction is a key component, although Walsh (2006) acknowledges the “self-effected” form of SI in which two or more people will take turns or simultaneously hurt each other. In contrast, alteration is usually done by somebody else. Alteration also differs from SI in that, like suicidal behavior, it serves a different function. Alteration is an act of self-decoration; it is an attempt to enhance the appearance of the body. The purpose of SI is not to affect the appearance of the body, but rather to modify and reduce psychological distress (Carlson et al., 2005; Levenkron, 1998; Simeon & Hollander, 2001; Walsh, 2006; Zila & Kiselica, 2001). Lastly, they differ in precipitating factors. Alteration is often done out of dissatisfaction with the body while SI stems from emotional dysregulation or an inability to cope with emotions. Ritual mutilations or cultural rituals that involve
injury, defined as altering one’s body in order to fulfill the demands of a societal group, are also not considered SI because, like alteration, they differ in precipitating factors. Instead, the injury is to achieve a rite of passage rather than to change a distressing emotional state (Alderman, 1997).

Classification of Self-Injury

Researchers have arranged the various forms of SI into different classifications. In 1993, Favazza first proposed the most accepted classification of SI, with the most recent revision appearing in 2001 (Simeon & Hollander, 2001). Favazza’s first classification system consisted of three categories differentiated by severity and contextual facilitators. The first category of SI, stereotypic, refers to “highly repetitive, monotonous, fixed, often rhythmic, seemingly highly driven, and usually contentless acts” (Simeon & Hollander, 2001, p.6). Unlike the injury done in the other categories, stereotypic injury is not a private act. Stereotypic SI appears more biologically driven than other forms of SI and is associated with developmental disorders, such as autism or Tourette’s Disorder (Simeon & Hollander, 2001). The self-injurious behaviors seen in these populations include behaviors that are seemingly driven, repetitive, and are not functional motor behavior (e.g., head banging, biting).

Favazza’s second category is major self-injurious behavior, also referred to as psychotic self-injury. This category encompasses the most dramatic and dangerous forms of SI, such as eye enucleation or castration. These behaviors are less frequent, occur suddenly, and result in a great deal of damage. This form of SI, usually associated with schizophrenia, has a lower prevalence rate and usually occurs during delusions or hallucinations.

The third category in Favazza’s initial classification is moderate/superficial self-
injury, which involves repetitive, ritualistic behaviors. It is this category of SI that was later further broken down by Simeon and Favazza (Simeon & Hollander, 2001) in their more recent revision of the classification system. This category includes compulsive and impulsive self-injury. Within compulsive SI, the common forms include trichotillomania (hair pulling), onychophagia (nail biting), and skin picking/scratching. Trichotillomania is the only form of SI included in the Diagnostic and Statistical Manual-IV-TR (DSM-IV-TR; American Psychiatric Association [APA], 2000) and falls within the category of an impulse disorder. People within this category do not feel a continuous urge to self-injure. Patients report mounting tension leading up to the behavior and relief after they have engaged in SI, but may resist the behavior with variable success (Simeon & Hollander, 2001). These behaviors are similar to obsessive-compulsive disorder (APA, 2000; Simeon & Hollander, 2001) because of the highly repetitive and compulsive features. Although the behaviors in this category occur more frequently than SI in the other categories, they have received less attention and have not been as thoroughly researched as previously discussed forms. There is speculation that this lack of attention is because the behaviors do not sound as dramatic as the other forms, such as cutting, but they can be just as damaging (Simeon & Favazza, 2001). People engaging in trichotillomania can pluck out a large amount of body hair from areas including their heads and pubic area causing bald spots. Those that engage in onychophagia can bite their nails to the degree that they cause infection. People with Tourette's Disorder may also engage in compulsive self-injury as part of their tics, including head banging, self-slapping, and tongue biting.

Compulsive self-injury is comorbid with the Favazza's last category, impulsive self-injury (Simeon & Hollander, 2001; Walsh, 2006). The SI in the category is usually
associated with borderline personality disorder. Impulsive SI becomes an organized and predominate preoccupation with the person to the point that it may become an automatic response to internal or external stimuli. The most common forms of SI in this category are cutting, burning, puncturing, and self-hitting. Besides borderline personality disorder, impulsive SI is also associated with antisocial personality disorder, posttraumatic stress disorder, dissociative disorder, and eating disorders (Simeon & Hollander, 2001).

There is not always a clear distinction between compulsive and impulsive self-injury as people who engage in SI often show traits of both the categories. Favazza’s system does acknowledge compulsive and impulsive SI as within the same category (Moderate SI); however, the overlap between these categories has led some researchers and practitioners to rethink Favazza’s classification. Also, while in the past SI was seen as a life-long problem associated with borderline personality disorder, developmental disorders, and history of abuse, the increase in new cases of SI have involved individuals that do not demonstrate these characteristics and thus do not fit within Favazza’s traditional categories. For example, the identification of adolescents who have no diagnosable clinical disorder that engage in SI (Ross & Heath, 2003; Walsh, 2006) is of recent focus (Lieberman & Poland, 2007; Ross & Heath, 2003; White Kress, 2003). In fact, Welsh (2004) refers to it as “the next teen disorder.”

Experts within the field differ in their conceptualizations of Simeon and Favazza’s categories and placement of this new generation of individuals who self-injure fit within it. For example, Alderman (1997) advocates combining the compulsive and impulsive forms under the heading Typical Self-Inflicted Violence. This category describes self-injurious behaviors that happen without the presence of a psychotic state and do not have organic or developmental roots, such as autism or mental retardation.
This classification is also for people who engage in self-injury that is more impulsive, but without an associated disorder, such as Borderline Personality Disorder. The behaviors that fall within Alderman's Typical Self-Inflicted Violence category have recently become of interest in the field of mental health, and as seen in the following paragraphs, the literature has begun to address it.

Walsh (2006) proposed an alternate conceptualization of Favazza's classification of SI that incorporates this change in the SI population. Walsh's classification system utilizes Favazza's stereotypic and major classifications, but reconceptualizes the compulsive and impulsive categories. Based on his clinical experience Walsh conceptualizes SI as a fluid behavior that can be both impulsive and compulsive. He writes about working with clients who have presented both impulsive and compulsive SI behaviors at the same time. Walsh feels that Favazza's category system is best for research purposes, but that fast-paced environments, such as schools, need a different classification system. Walsh instead distinguishes between categories he has labeled Common Self-Injury and Major Self-Injury. Within his classification system, Major Self-Injury includes individuals in the clinical population with a primary DSM-IV-TR diagnosis who exhibit self-injurious behaviors. Common Self-Injury (CSI) relates to the people in the general population who have no diagnosable DSM-IV-TR disorder who self-injure. As part of Common Self-Injury, Walsh also differentiates between direct self-harm and indirect self-harm. Direct self-harm refers to behaviors that are a deliberate and concrete attempt to injure oneself, such as cutting and burning. Other behaviors fall within indirect self-harm, which refers to behavior in which the damage is accumulative rather than immediate, such as substance abuse and eating disorders. Various forms of direct and indirect self-harm have been found frequently to co-occur
Walsh (2006) describes the Common Self-Injury category as comprising a new generation of adolescent self-injurers that have different characteristics than noted in past generations. Walsh notes that while in the past physical and sexual abuse have been found to be co-occurring with or are often associated with SI, this is not necessarily the case anymore. Walsh indicates that this new group of self-injurers denies any history of trauma or abuse, does not have a clinical diagnosis (such as Borderline Personality Disorder), does not report a dysfunctional family background, and presents normal attitudes about body image (2006). These individuals appear fine; they meet daily demands and appear to blend in with their peers. They are also quicker to stop self-injuring. As opposed to clinical patients that may engage in SI for years, this new group ceases after 6 months to 2 years. Walsh notes that this shorter time span could also be due to a higher rate in identification and more treatment routes.

Whitlock, Powers, and Eckenrode (2006) also concur with Walsh’s conceptualization, yet refer to these groups as life course-persistent and adolescent-limited SI. Within this conceptualization, Whitlock, Powers, and Eckenrode differentiate SI into two different forms: one that fits with the older conceptualization (clinical diagnosis with self-injurious behaviors) and has a lifelong trajectory, and one that fits Walsh’s new conceptualization that he calls Common Self-Injury and has an adolescent-limited trajectory. Whitlock, Powers, and Eckenrode view these two paths as similar to the life course-persistent and adolescent-limited trajectories associated with antisocial behavior. In the life course-persistent trajectory, the behavior begins in early childhood and is persistent through adulthood. The individuals in this trajectory exhibit characteristics more like classic conceptualization of SI (e.g., report a history of abuse,
have characteristics of borderline personality disorder) and would fit with Favazza’s older conceptualization and Walsh’s Major SI. In the adolescence-limited trajectory, the behavior emerges in early adolescence and declines in late adolescence or early adulthood. The individuals in this trajectory do not exhibit the traditional characteristics of SI and would fit in with Walsh’s category of Common SI.

For the purposes of this study, Walsh’s conceptualization of Common SI (CSI) is the classification of SI under investigation. Walsh’s classification includes people in the general population with no diagnosable DSM-IV-TR disorder who self-injure and distinguishes them from others who self-injure and who have a DSM-IV-TR diagnosis or developmental disorder. From this point, this study uses the term CSI to distinguish the type of self-injury examined in this study from other forms of SI described in different classifications.

Prevalence

There is currently an upward trend in the instances of self-injury. Estimates from the 1970s indicated that about 1% of the general population and 3-5% of the clinical population engaged in self-injury (Ballinger, 1971; Lester, 1972). Contemporary studies document percentages from 4% to 17% percent of the general population (Klonsky, Oltmanns, & Turkheimer, 2003; Ross & Heath, 2003; Whitlock, Eckenrode, & Silverman, 2006). In 2004, a study reported that ten percent of the youth in Britain had engaged in SI, an increase of 65% from 2002 (Young People and Self Harm: A National Inquiry, 2004). Briere and Gil (1998) surveyed randomly selected participants in the general population (n=927) and clinical patients selected from both inpatient and outpatient services (n=390). They found that 4% of the general population and 21% of the clinical population, excluding populations with intellectual deficits and
developmental disabilities, had engaged in a form of self-injurious behavior within the previous six months. Ross and Heath (2002) interviewed 440 high school students from one urban and one suburban high school in Canada and found that 13.9% of adolescents sampled indicated that they had engaged in self-injury. Klonsky et al. (2003) surveyed 1,986 military recruits (62% of which were male). Of their participants, 4% indicated that they had engaged in SI at some point in their lives. Whitlock, Eckenrode, and Powers (2006) found that in a random sample of 3069 students from two northeastern universities, 17% of that population had engaged in at least one instance of SI (7% within last 12 months and 9.7% greater than one year ago). No matter the prevalence rate found, each study indicates a rise in the prevalence of self-injury in recent years.

This rise in the prevalence rate could be due to self-injury being more in the public eye with an increasing amount of coverage about self-injury reported in the mainstream press and popular media. SI is increasingly recognized as an important health problem (Walsh, 2006). In a study conducted by Whitlock, Powers, and Eckenrode (2006), observational data from internet message boards identified over 400 message boards addressing SI. The results of this study combined with a growing number of anecdotal reports by those in the health field suggest that self-injury may be the “next teen disorder” (Welsh, 2004). Time magazine featured an article that refers to CSI as “the anorexia of the 90s” (Edwards, 1998). The media has also become a mechanism for spreading information about CSI with movies and television shows such as Thirteen (Levy-Hinte, London, & Hardwicke, 2003) and 7th Heaven (Hampton, 1996) containing adolescent characters who engage in CSI. As the behavior becomes more prevalent and recognized among teenagers, school personnel are receiving more referrals for children who self-injure (Galley, 2003).
Associated Features

Although most studies report a higher prevalence rate of SI among women over men (Simeon & Hollander, 2001; Zila & Kiselics, 2001), this number may actually reflect a greater tendency of women to solicit formal help and social support compared to men (Whitlock, Powers, & Eckenrode, 2006). Klonsky et al. (2003) found that roughly equal numbers of males and females engage in SI. Lieberman and Poland (2007) note that in the elementary school-aged population, there is a greater representation of males who engage in what they label moderate SI (which is consistent with CSI) than in older male populations, and a wider variety of self-injurious behaviors than in older populations for both sexes. In general, CSI begins in early adolescence, increases through the 20s, and then begins to decline. Adolescents tend to attempt to hide their self-injury due to the shameful and secretive nature of the disorder (Lieberman & Poland, 2007). Substance abuse and eating disorders are frequently comorbid with CSI. Walsh states that, like CSI, both are forms of coping or self-medicating as a way to alleviate negative or difficult emotions (2006). Substance abuse and eating disorders may complement the tension reducing capabilities of self-injury; however, individuals are rarely under the influence of drugs or alcohol when they self-injure (Nock & Prinstein, 2005; Walsh, 2006). According to Walsh (2006), there is also a relationship between CSI and the following types of risk-taking behavior: physical (e.g., walking in high-speed traffic), situational (e.g., hitchhiking alone), and sexual (e.g., having unprotected sex with a stranger). Childhood physical and sexual abuse is also frequently noted in histories of people that engage in SI (Alderman, 1997; Lieberman & Poland, 2007; Walsh, 2006). Van der Kolk, Perry, and Herman (1991) found that while childhood trauma, like abuse,
contributed to the beginnings of self-injurious behaviors, the lack of secure attachments in the child’s life appeared to maintain it. CSI affects adolescents from all cultures, races, and socioeconomic backgrounds (Lieberman & Poland, 2007). Favazza and Conterio (1988) found that 75% of participants engaged in more than one method of self-injury and that 38% of their participants had gone to the emergency room because of their self-injurious behavior.

Self-injury has often been associated with a range of different clinical disorders: borderline personality disorder, posttraumatic stress disorder, dissociative disorders, eating disorders, depression, obsessive-compulsive disorder, antisocial personality disorder, and a variety of psychoses (Walsh, 2006). Each of the classification systems (Alderman, 1997; Simeon & Hollander, 2001; Walsh, 2006; Whitlock, Powers, et al., 2006) includes a classification of SI whose population has a diagnosable clinical disorder. For example, Favazza found his Impulsive SI category to be associated with antisocial personality disorder, posttraumatic stress disorder, dissociative disorders, and eating disorders (Simeon & Hollander, 2001). Similarly, Ross and Heath (2002) surveyed 440 high school students and found that the 61 students who had engaged in SI had significantly higher scores on the ratings of depression and anxiety. Klonsky et al. (2003) found participants who had engaged in SI reported more traits of the borderline, schizotypal, dependent, and avoidant personality disorders. They also found a relationship between SI and depression and anxiety; although, further analysis found that participants that self-injured were better characterized as anxious than as depressed. However, these DSM-IV-TR diagnoses are associated with other classifications of SI, such as Favazza’s Moderate SI (MSI), and are not associated with CSI. Without being aware of the current conceptualization of CSI being distinct from MSI, health
professionals may assume that adolescents who self-injure have an associated pathology.

There are several distinguishing factors between MSI and CSI. CSI does not
evidence the variety of personality and clinical disorders often found in the histories of
individuals with MSI. In addition, CSI is associated with an adolescent limited
trajectory, while MSI is better associated with life course persistent. CSI is also
associated with more risk taking behavior, such as walking in high-speed traffic, which is
not associated with MSI.

*Functions of Self-Injury*

Reports by people who engage in SI say they do so in order to alleviate anxiety
and to cope during emotionally difficult times. They report feeling better afterwards
(Alderman, 1997; Ross & Heath, 2002; Simeon & Favazza, 2001; Walsh, 2006). Most
people cite intrapersonal reasons for why they self-injure (Walsh, 2006). Self-injury
helps people by “giving them a way to physically express and release their tension and
emotional pain” (Alderman, 1997, p.7). One study found that people engage in SI in
order to “control their mind when it is racing (72%), to feel relaxed (65%), to feel less
depressed (58%), to feel real again (55%), and to feel less lonely (47%)” (Favazza &
Conterio, 1988, p. 286).

Nock and Prinstein (2005) interviewed 89 adolescent psychiatric inpatients about
the contextual features and behavioral functions of their SI. Nock and Prinstein’s model
found four primary functions of SI that differ along two dichotomous dimensions:
contingencies that are automatic (within oneself) versus social and reinforcement that is
positive versus negative (removal of adverse stimuli). Combinations of these functions
would include automatic negative reinforcement (e.g., “To stop bad feelings”), automatic
positive reinforcement (e.g., “To feel something, even if it is pain”), social negative
reinforcement (e.g., “To avoid doing something unpleasant”), and social positive reinforcement (e.g., “To get attention”). While this research supports each function combination, adolescents who self-injure most frequently endorsed automatic negative reinforcement.

Klonsky (2007) reviewed 18 empirical research studies investigating the functions of SI. He found that adolescent samples (both clinical and nonclinical) endorse affect-regulation reasons as the function of SI the majority of the time. In the 18 studies that Klonsky reviewed, affect-regulation was examined the most \((n = 11\) studies) and endorsed heavily as a reason for self-injuring. Like the previously reviewed study by Nock and Prinstein, Klonsky cites a study by Penn, Esposito, Schaeffer, Fristz, and Spirito (2003) that also found that the majority of a sample of incarcerated adolescents indicated that they self-injured to stop bad feelings. Other functions of SI noted in adolescent populations to lesser degrees were self-punishment, anti-dissociation, sensation seeking, and anti-suicide. The functions of interpersonal boundaries and interpersonal influence were not noted in adolescent populations. Klonsky concluded that while affect regulation was noted in every study reviewed, the other functions of SI are also evident and should not be considered as mutually exclusive. The pattern of the seven functions of SI identified was similar across populations studied (non-clinical, clinical, forensic, adult, adolescent, outpatient, inpatient, women, and men). Klonsky interpreted the existence of multiple instead of exclusive functions to indicate the following: “(a) different functions may distinguish different subgroups of self-injurers; (b) multiple functions for self-injury may exist concurrently within individuals; (c) functions of self-injury may evolve over time within individuals; and (d) different functional models may overlap conceptually and describe different aspects of the same
phenomenon" (p 235).

Also implicated as an underlying cause and function of SI are endorphin levels or physiological influences (Klonsky, 2007; Walsh, 2006). When a person is injured, the body releases endorphins in order to control the sensation of pain. One theory states that people who self-injure do so because their endorphin level is naturally too low so they injure themselves to increase the levels, while another theory is that people who self-injure are addicted to endorphins and injure themselves for a rush (Alderman, 1997). In one study to test this idea, they found that when they blocked the release of endorphins, self-injurious behaviors decreased (Alderman, 1997). Klonsky (2007) reviewed two studies that used objective and subjective measures of physiological arousal to assess the functions of SI. The two studies reviewed found that arousal levels were high prior to self-injury and reduced after self-injury, thus supporting physiological correlates to SI.

There are several identified functions of SI. While Klonsky concluded that affect regulation is the most endorsed function of SI, he concluded that other functions were also evident and not to consider them as mutually exclusive. There has also been support to implicate the role of endorphins as a function of SI. Across different studies, adolescents most frequently endorsed automatic negative reinforcement (e.g., “To stop bad feelings”) as the function of their SI. The studies reviewed are composed of a variety of populations who self-injure (clinical outpatient, clinical outpatient, adjudicated, etc.) and not specifically limited to CSI populations. However, clinical impressions from Walsh (2006) indicate that affect regulation is major part for CSI also.

**Responding to Youth Who Self-Injure**

*Levels of response.* When it comes to working with adolescents who self-injure there are two levels of response: by individual professionals, and then by organizational
systems of which the adolescent is part. Performing individual professional responses are those within the mental health field, such as psychologists, who allow the adolescent to receive help with his or her SI on an individual basis. Organizational systems, such as schools, allow the adolescent to be involved in a supportive environment while receiving help for his or her SI. When looking at organizational systems, one of the most natural systems in which to work with individuals who self-injure is schools, since by law, all adolescents have to be in school. In addition, schools lack the restrictive nature of mental health community systems (e.g., psychiatric hospitals), which up until now, have been the main venue for information and treatment on SI. Schools offer an opportunity to work with adolescents who self-injure on both levels, within an organizational system and with individual professionals, such as school psychologists.

*Individual professional response to SI.* In White Kress's (2003) article on responses to SI, she sites a survey conducted by Gamble, Pearlman, Lucca, and Allen in 1994 of 117 mental health professionals who identified self-injury as the most distressing issue or behavior encountered in their practice. Further, mental health professionals labeled SI as the most traumatizing issue to encounter. Dealing with and treating SI is not only difficult for the person seeking treatment, but it is also difficult for the person providing treatment. White Kress (2003) notes that education on SI increases professionals' ability to assess and manage clients who self-injure. In her review, she notes that in order for mental health providers to be able to diagnose and assess SI accurately, they must first do a thorough assessment to select appropriate diagnoses and determine the severity and potential degree of danger. She also notes the importance of a thorough assessment in selecting an effective intervention.

However, Jeffery and Warm (2002) found that medical and mental health
professionals may still believe myths and misconceptions about SI. Jeffrey and Warm surveyed 80 medical and mental health providers and asked them to distinguish accurate statements about SI from myths about SI (see Table 1). Their results showed that medical workers and psychiatrists had a poorer understanding of SI than those in the psychological and social work field. The researchers noted that this lack of understanding about SI might contribute to professionals using ineffective interventions in treatments, which may lead to treatment dissatisfaction.

In fact, in a survey conducted by Warm, Murray, and Fox (2002) of individuals who self-injure regarding who in the medical and mental health field they had approached for help and their satisfaction with the help they received, respondents expressed dissatisfaction with the treatment received from health care professionals commonly involved in the treatment of SI. Voluntary organizations (46.5%) and self-harm specialists (44%) received the highest satisfaction ratings. Psychiatrists (51.3%), nurses (49.2%), and doctors (48.9%) received the highest ratings on dissatisfaction. The researchers suggested a link between the prevalence of negative and misinformed understandings about SI and the dissatisfaction patients felt about the treatment they had received. If one compares the data from this survey with the information gathered by Jeffrey and Warm (2002), who assessed knowledge levels of providers, groups with less knowledge were indicated as the groups on Warm et al. (2002) survey with whom individuals who self-injure were most dissatisfied with the treatment received. As such, Warm et al. recommended that professionals who are likely to encounter people who self-injure should receive training that will allow them to respond appropriately. Research implications are that professionals who work with youth who self-injure need to have training to respond sensitively and appropriately. This is necessary not only to be
Table 1.

Facts and Myths about Self-Injury

Accurate Statements about self-harm

Self-injury is a form of communication.
Self-injury provides a way of staying in control.
Self-Injury provides distraction from thinking.
Self-injury can obtain feelings of euphoria.
Self-injury is a release for anger.
Self-injury expresses emotional pain.
Self-injury is a coping strategy.
Self-injury helps a person maintain a sense of identity.
Self-injury provides escape from depression.
Self-injury helps deal with problems.

Myths about self-harm

Self-injury is a sign of madness.
People who self-injure will “grow out of it” eventually.
Self-injury is a manipulative act.
Self-injury is a “woman’s problem.”
The best way to deal with people who self-injure is to make them stop.
People who self-injure have been sexually abused.
Self-injury is a failed suicide attempt.
Self-injury is attention-seeking.
People who self-injure should be kept in psychiatric hospitals.
Facts and Myths about Self-Injury (cont.)

Myths about self-harm (cont.)

Everybody who self-injures suffers from Munchausen’s Disease (self-inflicted injuries which are calculated to produce specific symptoms that will lead to medical hospital admissions).

exclusion of other peers. These conversations can happen via the internet and chat rooms (Walsh, 2006), and a study noted over 400 SI internet message boards where individuals can go to talk with others about this behavior (Whitlock, Powers, & Eckenrode, 2006). Peer hierarchies can play a factor and “high status instigators” may play a role in the spread of CSI through a group (Walsh, 2006). Often in these groups, there is one individual, whom Lieberman and Poland (2007) term “the alpha male/female,” who may fit within a classic conceptualization of SI, such as Walsh’s Major SI, and be in the early stages of a personality disorder. This adolescent then influences his or her peers, who imitate the leader’s self-injurious behavior. These other adolescents will not demonstrate overt psychopathology or emotional disturbance and after assessment rate at lower risk than the alpha adolescent (Lieberman & Poland, 2007).

Even if a person is receiving treatment for another disorder, therapists often do not routinely ask their clients if they are injuring themselves, and people rarely self-disclose self-injurious behaviors voluntarily (Alderman, 1997). It is usually up to the patient to bring it up, but because of the stigma attached to the behavior, few do (Alderman, 1997). Due to the shameful and secretive nature of the behavior, adolescents that self-injure may go to great lengths to appear normal to avoid attention or embarrassment rather than seek help (Lieberman & Poland, 2007). Because the behavior can lead to being rejected or excluded by a peer group, adolescents that self-injure often feel isolated and alienated. In order to provide the help that the students need, schools need to create an environment in which students feel comfortable approaching a teacher, counselor, or school psychologist about the problem (Galley, 2003). As noted, one way to create a comfortable environment is to ensure that the professionals within the environment are knowledgeable about SI (Jeffrey & Warm, 2002; Warm et al., 2002).
Professionals who deal with youth who self-injure need to be knowledgeable about CSI in order to sensitively respond to these individuals and not contribute to their feelings of isolation or rejection. Without this knowledge base, professionals may have misconceptions about CSI, which can lead to adolescents feeling dissatisfied with the treatment that they have received. Thus, training is important to prevent professionals from acting on these myths when they work with individuals who self-injure. Jeffrey and Warm (2002) cite a study, conducted by Crawford et al. (1996), that found that an 1-hour training session improved approaches to the treatment of CSI in a medical setting. Malikow (2006) notes that teachers who are educated about CSI will be more understanding about the problem and will likely not reinforce any fear the student may have about their CSI or fear of judgment by others.

When it comes to CSI in the schools, the rise in the number of adolescents injuring themselves, the risk of a contagion effect spreading the behavior, and the disturbing nature of the behavior itself, all point to the need for a written protocol for personnel in schools to follow in order to respond in a systematic and strategic manner. Warm et al. (2002) recommends that it would be valuable within schools to put in place measures, similar to drug prevention programs, for responding in a meaningful way to adolescents that self-injure. Both Walsh (2006) and Lieberman and Poland (2007) recommend that a well-developed crisis management plan should involve how to respond sensitively and rapidly to CSI. The first step in preparing any school personnel to deal with CSI is comprehensive training (Lieberman & Poland, 2007; Onacki, 2005; Walsh, 2006). In his book, Walsh (2006) outlines a training series for school professionals that includes how to identify CSI and distinguish it from other behaviors and how to respond effectively in a low-key, dispassionate manner. Walsh outlines a protocol for schools to
use specifically in crisis management of CSI that includes designating a point person to
talk to the student and the next actions (depending on the information gathered and the
severity of the CSI). The steps in Walsh’s plan include phone contact with parents,
referral to the school nurse/counselor/principal, referral to agency outside of school (such
as mental health, hospital or police), and establishment of school support.

Lieberman (2004) discusses the importance of all school staff members having
training on how to identify CSI and respond appropriately without criticism or horror.
He recommends that this training be put under the responsibility of crisis management
teams and be included in their activities. Lieberman says that this training should include
the appropriate steps to be taken, such as determining appropriate support resources (e.g.,
parents, private mental health professional), notifying the parents, and coordinating with
relevant community services.

Onacki (2005) divides her response protocol for schools into internal and external
plans. The internal plan includes providing appropriate training for school professionals
on recognizing CSI and any referral steps that may be necessary. For the second part of
the internal plan, Onacki recommends that the nurse and counseling department partner
together to develop strategies on resiliency building opportunities and programming for
the entire student body, which can include using an anonymous peer referral form and
drop-off box. Onacki’s external plan includes involving the community by collaborating
with public resources, such as newspapers and parent organizations, to provide
information about CSI and appropriate treatment. Like Lieberman (2004) and Walsh
(2006), Onacki also recommends that schools have a set protocol in which all referrals go
to a school team that then initiates the assessment.

Because of the threat of contagion and the rise in prevalence rates, it is essential
for professionals who work within schools to learn how to identify students who are self-injuring in order to help them receive appropriate services. As CSI typically begins during adolescence, school professionals are accessible to assist individuals at the age when the behavior begins. Even if they do not engage in direct therapy with the student, mental health professionals (school counselors, school psychologists, etc.) within the school need to be educated about CSI and trained in assessment in order to identify the needs of the student. Walsh advocates that in order for school personnel to respond to CSI effectively they must utilize a written protocol that will allow them to respond systematically and strategically (Walsh, 2006). Other researchers note that school personnel may even become aware of a student’s self-injury before families and other persons outside the school (Carlson et al, 2005; Froeschle & Moyer, 2004; White Kress, Gibson, & Reynolds, 2004) and thus are in a key position to help these students.

School psychologist’s role. In that teens spend a large amount of time in school, it is important for school psychologists to have knowledge and skills in working with students who engage in CSI as they are seeing them more frequently in the schools. However, little research has been conducted with professionals working with individuals with CSI in the school setting. While the internet has been used previously to collect some research by examining chat group discussions or by having the individuals fill out surveys about their own self-injurious behaviors, there is still a lack of research examining school responses to CSI. A search for relevant literature was done on February 20, 2007, using the EBSCOhost research database with combinations of the keywords self-injury/self-mutilation and school psychologists, professional training, education, school professionals, professional practices, professional development, and public school. Only three articles found related to the type of self-injury of importance to
this study, but they were written for teachers or health care professionals, such as school nurses. No articles found dealt specifically with school psychologist and behaviors falling within CSI. Not one of the three articles found were research studies, they were general reviews of past research and professional experiences. However, all three (Brumberg, 2006; Malikow, 2006; Onacki, 2005) discussed the importance of school professionals being trained to work with students who are self-injuring in order to make sure that the student receives appropriate help.

In working toward addressing this need, the National Association of School Psychologists (NASP), which is the professional organization for school psychologists, offers an online tutorial for members on SI. NASP has over 25,000 members and more than 10,000 of their members hold the National Credential for School Psychologists (NCSP) credential, which NASP administers. After initial certification, a school psychologist with the NCSP credential renews his or her certification every three years with 75 hours of continuing professional development within those three years. This continuing professional development requirement encourages the school psychologist to stay up to date with changes in the profession. School psychologists with their NCSP credential can use tutorials, such as the one offered by NASP on SI, to meet the needs for continuing professional development.

Although both crisis management plans and training are important for school psychologists to work with students who are engaging in CSI, there is no research into how prevalent these factors may or may not be. If schools are using crisis management plans for CSI, there is no information as to what role school psychologists are playing within these plans.
Purpose of the Study

A growing number of reports by physicians, therapists, and school counselors suggests that SI may be "the next teen disorder" (Welsh, 2004) or "the anorexia of the 90s" (Edwards, 1998). Because teens spend a large amount of time in school, it is important for school psychologists to have knowledge and skills in working with students who self-injure as they are seeing them more frequently in the schools. Previous research has indicated that professionals are uncomfortable working with individuals who self-injure (White Kress, 2003) and have misconceptions about what constitutes SI (Jeffery & Warm, 2002). Without professionals having an accurate knowledge of SI and the ability to properly assess the behavior, individuals who self-injure may not evidence a high degree of satisfaction with the treatment that they receive (Warm, Murray, & Fox, 2002; White Kress, 2003). This research seeks to offer insight into the needs of school psychologists in working with students who self-injure by looking at school psychologists' current perceptions and understandings of SI. Secondly, it asked what tools school psychologists need to be able to work with students who self-injure and specifically examined training needs. Lastly, it examined what strategies, if any, school psychologists and/or their districts use with students who self-injure. Specifically, it looked at whether or not schools have crisis management plans in place to deal with SI and the composition of these plans. The research questions are as follows:

1. How knowledgeable are school psychologists about CSI?

   Hypothesis 1: School psychologists with documented continuing professional development (NCSP) will exhibit significantly higher knowledge of CSI than that exhibited by school psychologists without the same level of professional development (non-NCSP).
Hypothesis 2: School psychologists with assessed high knowledge of CSI will rate their perceived knowledge of CSI higher than that of school psychologists with assessed low knowledge of CSI.

2. What are the training needs of school psychologists in CSI?

3. How do schools respond to CSI? Are they using training and practices recommended by Walsh, and Lieberman and Poland, within their response systems.
Methods

Description of Respondents

National Association of School Psychologists (NASP) provided a random list of 1,000 members for the survey. Selected participants were members who classified themselves as working in public or private education and excluded those working in private practice, mental health agencies, or colleges/universities. Table 2 contains descriptive statistics for selected sample demographic variables. The majority of participants were Caucasian (87.3%) and female (85.7%). NASP also reports their membership demographic as mostly Caucasian (92.6%) and female (74%; Curtis, Lopez, Batsche, & Smith, 2006). The participants’ ages ranged from 25- to 68-years-old. Roughly half of the participants are 20 to 40 years old (n = 32), with the other half of the participants falling in the 41- to 68- years-old range. The 51-60 age range was the largest group (31.7%). This is comparable to the mean age of NASP membership of 46.2 years (Curtis et al., 2006). Fifty-four percent of respondents reported 10 years or less experience. Thirty-four percent reported they have 0-5 years of experience as a school psychologist, and two thirds of the sample had 15 years or less experience. The largest group of respondents (74.6%) reported having an Ed. S. degree, a Master’s degree, or a Masters degree with an additional 30 graduate hours. This is slightly higher than the NASP membership reports that 68% of members have a Master’s or Ed. S. (Curtis et al., 2006). Of the other respondents, 15.9% have a doctoral degree. Participants received his or her highest degree in school psychology from 1964-2007, with the majority of participants (54%) graduating since 1998. When asked to report how long they had been with their current district, the range was one year to 42 years, with an average of 9.8
Table 2

Demographic Descriptors for Sample

<table>
<thead>
<tr>
<th>Variables</th>
<th>Total Sample</th>
<th>NCSP&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% (N)</td>
<td>Yes (%(N))</td>
<td>No (%(N))</td>
</tr>
<tr>
<td>Total</td>
<td>100(64)</td>
<td>41(26)</td>
<td>59(37)</td>
</tr>
<tr>
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<td></td>
<td></td>
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<tr>
<td>Male</td>
<td>14.3(9)</td>
<td>15.4(4)</td>
<td>13.5(5)</td>
</tr>
<tr>
<td>Female</td>
<td>85.7(54)</td>
<td>84.6(22)</td>
<td>86.5(32)</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-30</td>
<td>22.2(14)</td>
<td>23.1(6)</td>
<td>21.6(8)</td>
</tr>
<tr>
<td>31-40</td>
<td>28.6(18)</td>
<td>30.8(8)</td>
<td>27.0(10)</td>
</tr>
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<td>41-50</td>
<td>11.1(7)</td>
<td>11.5(3)</td>
<td>10.8(4)</td>
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<tr>
<td>51-60</td>
<td>31.7(20)</td>
<td>26.9(7)</td>
<td>35.1(13)</td>
</tr>
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<td>61+</td>
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<td>7.7(2)</td>
<td>5.4(2)</td>
</tr>
<tr>
<td>Race</td>
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<td></td>
<td></td>
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<tr>
<td>African American</td>
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<td>7.7(2)</td>
<td>2.7(1)</td>
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<td>Caucasian</td>
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Table 2 (cont.)

<table>
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<th>Variables</th>
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<th>NCSP&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% (N)</td>
<td>% (N)</td>
<td>% (N)</td>
</tr>
<tr>
<td><strong>Years Experience</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>0-5</td>
<td>34.9 (22)</td>
<td>42.3 (11)</td>
<td>29.7 (11)</td>
</tr>
<tr>
<td>6-10</td>
<td>19.0 (12)</td>
<td>19.2 (5)</td>
<td>18.9 (7)</td>
</tr>
<tr>
<td>11-15</td>
<td>15.9 (10)</td>
<td>15.4 (4)</td>
<td>16.2 (6)</td>
</tr>
<tr>
<td>16-20</td>
<td>9.5 (6)</td>
<td>15.4 (4)</td>
<td>5.4 (2)</td>
</tr>
<tr>
<td>21-30</td>
<td>14.3 (9)</td>
<td>7.7 (2)</td>
<td>18.9 (7)</td>
</tr>
<tr>
<td>31+</td>
<td>6.3 (4)</td>
<td>0</td>
<td>10.8 (4)</td>
</tr>
<tr>
<td><strong>Degree</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Masters</td>
<td>36.5 (23)</td>
<td>46.2 (12)</td>
<td>29.7 (11)</td>
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<td>Ed.S.</td>
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<td>30.8 (8)</td>
<td>43.2 (16)</td>
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<td>Ed. D.</td>
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<td>2.7 (1)</td>
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<td>5.4 (2)</td>
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<td>Ph.D.</td>
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<td>0</td>
<td>10.8 (4)</td>
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<tr>
<td>Other</td>
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<td>8.1 (3)</td>
</tr>
<tr>
<td><strong>School population</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Less than 5,000</td>
<td>25.4 (16)</td>
<td>19.2 (5)</td>
<td>29.7 (11)</td>
</tr>
<tr>
<td>5,001-15,000</td>
<td>31.7 (20)</td>
<td>11.5 (12)</td>
<td>21.6 (8)</td>
</tr>
<tr>
<td>15,001-25,000</td>
<td>14.3 (9)</td>
<td>19.2 (5)</td>
<td>10.8 (4)</td>
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</table>
Table 2 (cont.)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Total Sample</th>
<th>NCSP&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%&lt;sup&gt;(N)&lt;/sup&gt;</td>
<td>%&lt;sup&gt;(N)&lt;/sup&gt;</td>
<td>%&lt;sup&gt;(N)&lt;/sup&gt;</td>
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<tr>
<td>School population (cont.)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>25,001-35,000</td>
<td>6.3(4)</td>
<td>3.8(1)</td>
<td>8.1(3)</td>
</tr>
<tr>
<td>35,001-45,000</td>
<td>4.8(3)</td>
<td>0</td>
<td>8.1(3)</td>
</tr>
<tr>
<td>Over 45,000</td>
<td>17.5(11)</td>
<td>11.5(3)</td>
<td>21.6(8)</td>
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<tr>
<td>Location of school</td>
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<tr>
<td>Metro</td>
<td>12.7(8)</td>
<td>19.2(5)</td>
<td>8.1(3)</td>
</tr>
<tr>
<td>Urban large</td>
<td>19.0(12)</td>
<td>11.5(3)</td>
<td>24.3(9)</td>
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<td>Urban middle</td>
<td>15.9(10)</td>
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<td>13.5(5)</td>
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<td>Town large</td>
<td>23.8(15)</td>
<td>34.6(9)</td>
<td>6.2(6)</td>
</tr>
<tr>
<td>Town small</td>
<td>22.2(14)</td>
<td>15.4(4)</td>
<td>27.0(10)</td>
</tr>
<tr>
<td>Rural</td>
<td>6.3(4)</td>
<td>0</td>
<td>10.8(4)</td>
</tr>
</tbody>
</table>

<sup>Note.</sup> Knowledge score was derived by summing responses to Jeffery and Warm's 20 questions on SI (1-strongly disagree, 2-disagree, 3-unsure, 4-agree, 5-strongly agree) with a potential score range of 20-100.

<sup>a</sup>National Certified School Psychologist.

<sup>b</sup>Low Knowledge Group had Knowledge scores ≤ 79.

<sup>c</sup>High knowledge group, Knowledge scores ≥ 80.
years. The survey respondents practice in twenty-seven states, with cities ranging from metro areas to rural areas. The sample reflects each region of the US. Most of the participants (90.5%) worked in public schools, one participant worked for a private school, three participants worked for a combination, and two participants are retired. Forty-six percent of the respondents worked in either a large or a small town. Respondents estimated the student population of their districts and the largest response category (31.7%) was from 5,001 to 15,000 students.

Procedure

For the research, NASP provided the names and mailing addresses of a random sample of 1,000 NASP members in the form of mailing labels. The sample group received a postcard (Appendix A) inviting them to go to a website on Western Kentucky University’s URL to complete the survey (Appendix B). Once accessing the survey, participants provided consent before continuing (Appendix C). They had three weeks to respond, and the fourth week they received an additional postcard reminding them of the opportunity to fill out the survey (Appendix D). Once participants had completed the survey, they had the option of emailing their contact information to the researchers to be included in a raffle for a participation prize of one of two $25 Amazon.com gift certificates. The participant’s survey information and the raffle information are independent of each other and do not identify individual survey responses. Western Kentucky University’s Human Subjects Review Board approved all procedures (Appendix E). Upon completing the survey, the participants received debriefing and email contact information for the researchers (Appendix F).

Instrument

A survey developed to provide information to address the research questions and
hypotheses provide the data for this investigation. The survey consists of four sections assessing a variety of information ranging from demographic information, basic information about SI, training needs, and school responses to SI.

The first section of the survey (questions 2-13) asks for basic demographic information about the respondents, their level of training, and their employment information. The next section, knowledge of SI, contains Jeffrey and Warm's (2002) 20 survey items that ascertain level of knowledge of SI by asking participants to respond on a 5-point Likert scale (1-strongly disagree, 2-disagree, 3-unsure, 4-agree, 5-strongly agree) to common myths regarding SI and factual information about SI (question 14). Professionals checked Jeffrey and Warm’s survey for face validity during development. Jeffrey and Warm (2002) had a Cronbach's alpha coefficient of .75 and a split-half reliability of .84. To supplement these items, behavioral examples and nonexamples of CSI are included (question 15) and responses scaled consistent with Jeffrey and Warm’s 5-point Likert scale. Additional questions regarding contemporary understandings of SI, on topics such as typical age of onset, percentage of population that engages in SI, and the relationship of SI to psychopathology, were included (questions 16-20). The last set of knowledge questions represent characteristics of SI reported in the literature and utilize a 5-point Likert scale for responses. To control for response set, 22 of the 51 questions require reversed response patterns.

The third section of the survey ascertains participants’ training and experience in working with youth who self-injure (questions 21 to 38). This section gathers indicators of the amount of exposure the participant has to SI including training and experience. As previous research examined the relationship between knowledge of SI and satisfaction with the treatment received (Jeffery & Warm, 2002; Warm et al., 2002), these questions
offer insight into what, if any, opportunities school psychologists have to gain this knowledge.

In the last section of the survey, the participants answered questions about the characteristics of their district responses to SI. The first part (questions 39-43) asks general information about the school plans, such as the school psychologist’s role and what other professionals are involved in the plan. The second part of this section (questions 44-48) is composed of questions taken from recommended practices for training and school crisis management plans for SI (Lieberman & Poland, 2007; Walsh, 2006).

Three doctoral level psychologists and seven school psychology practitioners conducted an expert and practitioner content validity and readability review analysis. They checked the document for both breadth and clarity of the questions and adequacy of response options. In addition, they checked for redundancy and for grammar mistakes. The reviewers only made recommendations for grammar corrections.
Results

This section presents the survey data and the analyses to address the hypotheses. In addition, the results provide descriptive statistics for the sample demographic variables and the measure developed from the survey questions. Hypotheses one and two’s analyses of mean group differences are presented. Descriptive analysis of the responses to the questions addressing training, competence, and school response patterns provides the data to address research questions two and three.

Response Rate

The first round of postcards entered the mail on the first week of June. Three weeks later the follow up postcards entered the mail to ask those who had not yet completed the survey to participate. One week later, collection of the survey data ended (July 9, 2007). The response rate for the survey is 6.4% with 64 responses to the 1,000 mailed invitations. One survey was unusable due to the participant not fitting within the parameters of requested survey participants.

Hypothesis One

To test the first hypothesis, if school psychologists with documented continuing professional development (NCSP status) exhibit significantly higher knowledge of SI than non-NCSP school psychologists exhibit, a knowledge score was calculated based on responses to questions 14 to 20. NCSP status served as the basis for dividing the sample into two groups to test the first hypothesis. Table 2 contains the demographic information on the NCSP and non-NCSP groups. The demographic variables for the NCSP and non-NCSP groups have a similar distribution pattern to that of the total sample. Several of the questions had multiple responses and by summing the responses across these questions, each participant received a knowledge score. To calculate the
knowledge score, the Likert scale responses were assigned values (1-strongly disagree, 2-disagree, 3-unsure, 4-agree, 5-strongly agree), so that higher scores reflect more accurate knowledge. To control for response set, 22 of the questions had reversed scaling and required recoding for scoring. The summed values across the seven questions had a minimum score of 51 and maximum score of 247. A reliability analysis for the measure yielded poor results with a Cronbach’s alpha of .53 and split-half reliability of .46 for the 51-item measure. Analysis of the subset of 20 questions developed previously by Jeffrey and Warm (2002) for this sample yielded stronger reliabilities. Cronbach’s alpha and Spearman-Brown split-half coefficients were .69. Therefore, this analysis used Jeffrey and Warm’s 20 items. The summed knowledge score across the 20 items yield a score range of 20-100. Table 3 contains the descriptive data for the sample and the groups on the computed knowledge score. An independent samples $t$ test computed for the group means yielded no significant mean differences ($t(61) = 1.487, p = .142$). The school psychologists with the NCSP credential evidenced no significantly greater mean knowledge score than school psychologists who do not hold the NCSP credential. Therefore, Hypothesis One is not supported.

**Hypothesis Two**

To test the second hypothesis that school psychologists with assessed high knowledge of CSI rate their perceived knowledge of CSI higher than school psychologists with assessed low knowledge of CSI rate their perceived knowledge, participants’ knowledge score was compared to the participant’s self-assessment of knowledge rating from question 30 “How knowledgeable are you about SI?” A median
Table 3

*Descriptive Statistics of Knowledge Score and Self-Rating Score*

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>Range</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Knowledge Score</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NCSP <em>(n = 26)</em></td>
<td>80.50</td>
<td>69-95</td>
<td>7.27</td>
</tr>
<tr>
<td>Non-NCSP <em>(n = 37)</em></td>
<td>78.14</td>
<td>67-89</td>
<td>5.36</td>
</tr>
<tr>
<td>Total <em>(N = 63)</em></td>
<td>79.11</td>
<td>67-95</td>
<td>6.27</td>
</tr>
<tr>
<td><strong>Self-Rating Score</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Knowledge <em>(n = 35)</em></td>
<td>2.57</td>
<td>1-4</td>
<td>.608</td>
</tr>
<tr>
<td>High Knowledge <em>(n = 28)</em></td>
<td>2.75</td>
<td>2-4</td>
<td>.585</td>
</tr>
<tr>
<td>Total <em>(N = 63)</em></td>
<td>2.65</td>
<td>1-4</td>
<td>.600</td>
</tr>
</tbody>
</table>

*Note.* Knowledge score was derived by summing responses to Jeffery and Warm’s 20 questions on SI (1-strongly disagree, 2-disagree, 3-unsure, 4-agree, 5-strongly agree) with a potential score range of 20-100 *(SD = 6.27).* Self-Rating Score derived from responses to survey question 30 (1-strongly disagree, 2-disagree, 3-unsure, 4-agree, 5-strongly agree *(SD = .60).*

*a*NCSP = Nationally Certified School Psychologist.

*b*Low Knowledge Group had Knowledge scores ≤ 79 *(Mean = 74.67, SD = 3.24).*

*c*High Knowledge Group had Knowledge scores ≥ 80 *(Mean = 84.71, SD = 4.3).*
split of the score range for all respondents on the knowledge measure computed and used in Hypothesis One, created the low and high knowledge groups. The low knowledge group is comprised of individuals with scores equal to or lower than 79 ($n=35; M=74.63$). The high knowledge group is comprised of the individuals with a score above 80 ($n=28; M=84.7$). An independent samples $t$ test verified significantly different mean scores for high and low knowledge groups ($t(61) = -5.47, p = .001$). Table 2 provides the demographic information for the groups and shows the distribution of frequencies for the demographic variables for the high and low groups are similar to that of the sample. Participants' responses to survey question 30 provided the score for analysis (5-point Likert scale; 1-strongly disagree, 2-disagree, 3-unsure, 4-agree, 5-strongly agree). Table 3 provides the descriptive statistics for the responses to the self-assessed level of knowledge. An independent samples $t$ test compared the means for the high and low knowledge groups and found no significant mean difference ($t(61) = -1.178, p = .244$) between the scores of the two groups. Hypothesis Two was not supported. School psychologists in the high knowledge score group do not rate themselves differently than school psychologists in the low knowledge group.

The questions that did not have sufficient reliability to be included in the knowledge score calculation (questions 15-20) provide further descriptive information about the respondents' knowledge. Recoding of the responses into two discrete categories of response patterns enhanced clarity (see Table 4). The first category comprised responses coded as 1, 2, or 3 and reflects inaccurate or unsure knowledge of SI. The response codes of 4 and 5 reflect accurate understanding of SI. Once recoded, a 70% frequency criterion provides a basis for identifying response frequencies indicating a
Table 4

*Understanding of SI*

<table>
<thead>
<tr>
<th>Question</th>
<th>Mean</th>
<th>Inaccurate&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Accurate&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor Understanding of SI&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student punches wall until breaks bones.</td>
<td>2.21</td>
<td>82.5%</td>
<td>17.5%</td>
</tr>
<tr>
<td>Student with autism bangs head desk.</td>
<td>2.29</td>
<td>74.6%</td>
<td>25.4%</td>
</tr>
<tr>
<td>SI is distinct from pathology.</td>
<td>2.94</td>
<td>71.4%</td>
<td>28.6%</td>
</tr>
<tr>
<td>Percent of population engaging in SI.</td>
<td>.08&lt;sup&gt;b&lt;/sup&gt;</td>
<td>92.1%</td>
<td>7.9%</td>
</tr>
<tr>
<td>Good Understanding of SI&lt;sup&gt;c&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student has multiple piercings.</td>
<td>3.94</td>
<td>27.0%</td>
<td>73.0%</td>
</tr>
<tr>
<td>Student broke his ankle while intoxicated.</td>
<td>1.76</td>
<td>15.9%</td>
<td>84.1%</td>
</tr>
<tr>
<td>A student hurts himself to “relax.”</td>
<td>4.41</td>
<td>4.8%</td>
<td>95.2%</td>
</tr>
<tr>
<td>A student burns the inside of her thighs.</td>
<td>4.51</td>
<td>4.8%</td>
<td>95.2%</td>
</tr>
<tr>
<td>A student pulls out hair to relieve anxiety.</td>
<td>3.95</td>
<td>28.6%</td>
<td>71.4%</td>
</tr>
<tr>
<td>A student is branded during initiation.</td>
<td>3.89</td>
<td>27.0%</td>
<td>73.0%</td>
</tr>
<tr>
<td>A student cuts to “feel alive.”</td>
<td>4.70</td>
<td>1.6%</td>
<td>98.4%</td>
</tr>
<tr>
<td>SI is a form of suicide.</td>
<td>4.13</td>
<td>17.5%</td>
<td>82.5%</td>
</tr>
<tr>
<td>Suicide seen in individuals who SI.</td>
<td>3.65</td>
<td>9.5%</td>
<td>90.5%</td>
</tr>
<tr>
<td>SI is distinct from suicide.</td>
<td>3.98</td>
<td>17.5%</td>
<td>82.5%</td>
</tr>
<tr>
<td>SI feature associated with pathology.</td>
<td>4.14</td>
<td>7.9%</td>
<td>92.1%</td>
</tr>
</tbody>
</table>
Table 4 (cont.)

<table>
<thead>
<tr>
<th>Question</th>
<th>Mean</th>
<th>Inaccurate&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Accurate&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Good Understanding of SI&lt;sup&gt;b&lt;/sup&gt; (cont.)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individuals with body piercing/tattoos SI.</td>
<td>4.13</td>
<td>20.6%</td>
<td>79.4%</td>
</tr>
<tr>
<td>Age people begin to engage in SI.</td>
<td>.86&lt;sup&gt;c&lt;/sup&gt;</td>
<td>14.3%</td>
<td>85.7%</td>
</tr>
<tr>
<td>SI is distinct from body piercings/tattoos.</td>
<td>4.02</td>
<td>19.0%</td>
<td>81.0%</td>
</tr>
<tr>
<td><strong>Problematic Understanding of SI&lt;sup&gt;d&lt;/sup&gt;</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student says he tried to commit suicide</td>
<td>3.03</td>
<td>55.6%</td>
<td>44.4%</td>
</tr>
<tr>
<td>Student blinds herself.</td>
<td>2.83</td>
<td>66.7%</td>
<td>33.3%</td>
</tr>
<tr>
<td>Student has scars from ritual group.</td>
<td>2.73</td>
<td>68.3%</td>
<td>31.7%</td>
</tr>
<tr>
<td>Student injures so friends think he is cool.</td>
<td>3.10</td>
<td>60.3%</td>
<td>39.7%</td>
</tr>
<tr>
<td>Student picks at wounds.</td>
<td>3.83</td>
<td>30.2%</td>
<td>69.8%</td>
</tr>
<tr>
<td>SI is a precursor to suicide.</td>
<td>3.65</td>
<td>39.7%</td>
<td>60.3%</td>
</tr>
<tr>
<td>SI is a precursor to psychopathology.</td>
<td>3.16</td>
<td>58.7%</td>
<td>41.3%</td>
</tr>
<tr>
<td>Tattoos/piercings SI if done to self.</td>
<td>3.71</td>
<td>44.4%</td>
<td>55.6%</td>
</tr>
<tr>
<td>SI evident in popular media.</td>
<td>3.51</td>
<td>41.3%</td>
<td>58.7%</td>
</tr>
<tr>
<td>SI internet forums easily accessible.</td>
<td>4.02</td>
<td>30.2%</td>
<td>69.8%</td>
</tr>
<tr>
<td>Media spread information on SI.</td>
<td>3.75</td>
<td>33.3%</td>
<td>66.7%</td>
</tr>
<tr>
<td>SI can be contagious.</td>
<td>3.52</td>
<td>38.1%</td>
<td>61.9%</td>
</tr>
<tr>
<td>SI is DSM-IV-TR category.</td>
<td>3.56</td>
<td>57.1%</td>
<td>42.9%</td>
</tr>
</tbody>
</table>
Table 4 (cont.)

Note. Frequencies derived from rescaling the 5 point Likert scale (1-strongly disagree, 2-disagree, 3-unsure, 4-agree, 5-strongly agree) into two groups, Accurate (responses 4 and 5) and Inaccurate (responses 1, 2, and 3).

\[a\] Poor Understanding of SI = Inaccurate frequencies ≥ 70%.

\[b\] Responses scaled as 1 or 0.

\[c\] Good Understanding of SI = Accurate frequencies ≥ 70%.

\[d\] Problematic Understandings of SI = Inaccurate or Accurate < 70%.

good or a poor understanding of SI for the sample. Out of the 31 questions in this area, four indicate inaccuracies in understanding for the majority of the respondents using the 70% criterion. Fourteen questions reflect accurate understanding of SI. Thirteen questions reflected a problematic understanding of SI in that the response pattern for the sample did not meet the established 70% criterion. Questions in the problematic understanding category have greater than a third of the sample evidencing inaccuracies. These questions included recent research in areas such as the media’s relationship to SI, contagion, and the relationship between SI and psychopathology.

Research Question Two

School psychologists’ CSI training needs are the focus of the second research question. Survey questions 21 to 42 asked about knowledge, experience, confidence, training needs, and school responses.

Knowledge and Experience. The largest group of respondents first became aware of SI through referral/experience working with students who self-injure (39.7%).
Respondents additionally reported the following as ways they first became aware of SI: lecture or training series (30.2%), journal or professional newsletter (9.5%), media or popular press (3.2%), and other (15.9%), which included previous exposure through professional peers and respondents’ personal lives. Only one participant indicated they had no knowledge about SI. Respondents selected journal/professional newsletters (38.1%) and lectures/training sessions (33.3%) as their main information sources on SI, followed by referral/experiences working with students who self-injure (15.9%), the media (4.8%), and other (4.8%) in which respondents selected a combination of the responses or indicated peers. Two respondents (3.2%) indicated they have not received information on SI. The majority of the respondents (50.8%) estimated working with 1-5 students who self-injure in the previous year, and 15.9% indicated an estimate of 6-10 students. A third of the respondents (33.3%) had not worked with a student who self-injures in the previous year. Respondents also estimated the number of students who self-injured and seen by personnel other than themselves, with 1-5 students again most frequently (41.3%) selected. The majority of respondents (67%) indicated they agreed and strongly agreed with the statement “SI is a problem in the schools I service.” Further, 17.5% of the sample disagreed or strongly disagreed with the statement, and 15.9% were unsure. Participants indicated what forms of SI they had seen or had reported to them (Table 5), with cutting (87.3%) being the most frequently noted. They also indicated which form of SI was the most common, followed by the second most common, and then the third most common (see Figure 1). Participants again selected cutting as the most frequently encountered form of self-injury.

Confidence and comfort level. Questions 31 to 33 focused on obtaining
Table 5

*Forms of Self-Injury Seen By or Reported to Participants*

<table>
<thead>
<tr>
<th>Form</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cutting</td>
<td>55</td>
<td>87.3</td>
</tr>
<tr>
<td>Scratching</td>
<td>42</td>
<td>66.7</td>
</tr>
<tr>
<td>Burning</td>
<td>24</td>
<td>38.1</td>
</tr>
<tr>
<td>Punching, hitting (self or objects)</td>
<td>28</td>
<td>44.4</td>
</tr>
<tr>
<td>Breaking bones</td>
<td>6</td>
<td>9.5</td>
</tr>
<tr>
<td>Pulling out hair</td>
<td>34</td>
<td>54.0</td>
</tr>
<tr>
<td>Picking at scabs to interfere with healing</td>
<td>27</td>
<td>42.9</td>
</tr>
<tr>
<td>Banging body parts on objects</td>
<td>18</td>
<td>28.6</td>
</tr>
<tr>
<td>Ingesting harmful materials</td>
<td>7</td>
<td>11.1</td>
</tr>
<tr>
<td>None</td>
<td>4</td>
<td>6.3</td>
</tr>
<tr>
<td>Other*</td>
<td>2</td>
<td>3.2</td>
</tr>
</tbody>
</table>

*aOther: Running into traffic, sniffing paints/gas
Figure 1. Ranking of common types of self-injury encountered by participants, ranked as first most common, second most common, and third most common (n=63). Participants that did not have a form of self-injury to report selected none. Other was biting self.
information about respondent’s confidence and knowledge in working with youth who self-injure. Respondents selected, given their current knowledge, how confident they would be working with someone who self-injures. Most responded that they felt “somewhat confident,” “confident,” or “very confident” (98.4%), with a few of the respondents selecting “not at all confident” (1.6%). In response to how confident they felt in being able to do an initial interview with a student who was referred to them about his/her SI and be able to obtain the necessary information, 89% of participants responded that they felt some degree of confidence. Of the remaining participants, 11.1% felt “not at all confident.” When asked, assuming adequate training, how comfortable the respondent would be in working with someone who self-injures, 84% indicated feeling a degree of comfort, while 16% responded with “uncomfortable” or “slightly uncomfortable.”

*Training needs.* Descriptive data compiled on questions 34-38 address the training needs of the participants in relation to SI training needs. Respondents selected resources to assist them in feeling more confident in working with students who self-injure (see Figure 2). “More Training” was the most frequently selected resource (93.7%). When asked if they felt like they had the tools/resources to work with a student who self-injures, 11% indicated that they had the tools and resources to work alone with youth who self-injure, and 89% indicated that they would need additional tools/resources. When asked to select what training or resources they have available (see Figure 3), “Crisis response training (not for SI specifically)” was most frequently selected (84.1%). However, the largest percentage of participants (42.9%) responded that they have not attended a professional training session on SI. Of those that have attended a professional
Figure 2. Resources identified to assist respondents in feeling more confident in working with students who self-injure.
Figure 3. Types of training and resources available to participants to use in working with students who self-injure. Other was a county specialist on SI.
training session, 50.8% did so within the last five years (see Figure 4). When asked if they would like to receive more training on SI, only one participant (1.6%) was not interested in more training, while the remaining participants (98.4%) were interested in more training, with 27% of the participants indicating that they were "very interested." The majority of participants indicated that they were both in need of and interested in training on SI.

Research Question Three

Descriptive data from questions 21 to 48 on the survey provide information on school and professional responses to SI. In reporting referral rates, 88.9% of participants experienced a student referred for SI, with the majority of respondents (61.9%) reporting that they very rarely had students referred to them for SI. Of the remaining responses, 22.2% of participants received monthly referrals, with 4.8% of participants indicating referrals on a more frequent basis. The largest number of respondents saw their primary role in working with students who self-injure as referring students to a professional in the community (36.5%), followed by individual therapy/counseling (20.6%). Of the remaining responses, 22.2% of participants received monthly referrals, with 4.8% of participants indicating referrals on a more frequent basis. The largest number of respondents saw their primary role in working with students who self-injure as referring students to a professional in the community (36.5%), followed by individual therapy/counseling (20.6%). Other roles include developing academic and/or counseling supports within the school (14.3%) and contacting parents (12.7%). The remainder of the participants indicated that they did not see themselves having a role in working with students who injure (9.5%) or "other" (6.3%). Fifty-six participants (88.9%) reported
Figure 4. Recency of participants’ last professional training on self-injury (N= 63)
another professional in their district is responsible for dealing with students who self-injury.

*School plans.* For school plans for responding to SI, 30.1% of participants indicated that either their school/district does not use a plan or they do not know if there is a plan. For respondents in districts that have a plan for handling SI (69.9%), only 7.9% replied that their district uses a plan specifically for addressing SI. Other types of plans include ones designed by the respondents (11.1%) and plans designed by the district 55.6%. Of schools that designed plans, 30.2% use one developed with mental health involvement, while 7.9% use a plan designed without mental health involvement. Some participants did not know about mental health involvement in response plans. Of those respondents that have a plan, 66.7% indicated that they used at least one of the actions recommended by Walsh, although the frequencies of the different response options varied (Figure 5). Of respondents that use school response plans, 49.2% have not had staff training on SI. Figure 6 depicts which training activities recommended by Lieberman and Poland were included in other participant’s staff training. A majority of participants, 90.5%, have not received any training on how to reduce contagion within their schools.
Figure 5. Walsh’s (2002) recommended actions/options for inclusion in school plans for responding to students who self-injure. N/A selected by participants that do not have school response plans for self-injury.
Figure 6. Lieberman and Poland's (2007) recommend activities for staff training in responding to self-injury. N/A includes respondents whose district does not have a response plan for SI or who do not know about their district’s response plan.
Discussion

The current study investigated the needs of school psychologists in working with students who self-injure by looking at school psychologists’ current perceptions and understandings of SI. It also examined what tools school psychologists need to be able to work with students who self-injure and specifically if there are any training needs. Lastly, it examined what strategies, if any, school psychologists use with students who self-injure. Specifically, it looked at whether or not schools have crisis management plans in place to deal with SI and the composition of these plans.

Hypothesis One

Hypothesis One looked at how the knowledge score of school psychologists with documented continuing professional development (NCSP status) compared with that of non-NCSP school psychologist’s knowledge score. NCSP status served as the grouping variable to compare mean knowledge scores based on selected survey responses. Hypothesis One was not supported as school psychologists with the NCSP credential evidenced no significantly greater mean knowledge score than school psychologists that do not hold the NCSP credential. One possible explanation is that although the population sample was split almost in half (41%/59%) on NSCP status, the demographic composition of the small sample was more homogenous, as the majority of the population were Caucasian, female, have a master’s degree or Ed. S.. and are new to the field. Because the small population was so similar, another factor may have had a stronger influence on their knowledge than NCSP status, such as being a young female. In addition, because most of the participants are recent graduates (half have graduated since 1998), it may be that their recent training influences their knowledge of SI more than their continuing education training done to maintain NCSP status.
Jeffery and Warm’s (2002) initial study found that medical and some mental health professionals may still believe myths and misconceptions about SI. Their results showed that medical workers and psychiatrists had a poorer understanding of SI than those in the psychological field. Of the professionals in their study, psychiatrists had a mean score of 69.78, medical workers a mean of 71.00, and social/community workers a mean of 77.16. The psychologists in their study performed the highest (with a mean score of 79.37) which was similar to the population in this study.

Overall, the participants in this study scored fairly well, indicating that they are knowledgeable about SI with a mean score of 79.11, which is close to the mean score of psychologists on Jeffery and Warm’s (2002) study. Further, the sample mean is similar to the group mean of individuals who self-injure (79.81) who completed Jeffery and Warm’s (2002) study. The current mean score finding may be because of an increase in general awareness about SI since Jeffery and Warm’s original study. It may also be that somewhere in school psychology training or experience, the respondents became more knowledgeable about SI than other professionals did. While Hypothesis One was not supported, the survey did show that the school psychology participants performed similarly on the questions to other psychologists surveyed by Jeffery and Warm (2002).

In looking at participants’ responses to Jeffery and Warm’s (2002) questions, the response pattern does indicate some inaccurate knowledge of SI. For example, almost half of the participants (44.4%) answered “unsure” to the question “People who self-injure have been sexually abused.” On the question “Self-injury helps deal with problems”, the participants were split, with 57.1% of them answering strongly disagree, disagree, or unsure. While Walsh (2006) warns against dismissing CSI in the schools as just being an attempt to gain attention or just a fad, 81% of participants either agreed or
were unsure when asked if they thought SI was attention seeking. On the Jeffery and Warm myth, "Self-injury is a manipulative act," 55.6% of participants either agreed or were unsure. While a large part of the participants correctly identified the myths versus the true statements, the participants did show a lack of knowledge in some areas.

Additional information about respondents knowledge of SI is found in the items removed from the knowledge score due to poor reliability (questions 15-20). These responses were recoded into poor, good, and problematic understanding of SI categories. Of the forms of SI, participants recognized situations as SI where the student said that they were injuring themselves to "feel alive" or "to relax." The two forms of SI that they did not recognize was an example of SI related to a developmental disorder (SI related to autism) and a form where students punch the wall until they break bones. In addition, participants may have been thinking of the narrower category of CSI and not the broader SI category. Since only six participants have indicated this type of SI was reported to them or worked with students who self-injury in this way, they may not have recognized it due to lack of exposure. Another explanation may be that the participants needed to know the precipitating factor, such as the student being angry with himself, before they felt confident considering it SI. Participants were able to recognize that SI can be a feature associated with pathology, but did not recognize SI as being possibly distinct from pathology in some cases. This may be because SI is often associated with disorders such as borderline personality disorder and one from of SI, trichotillomania, is included in the DSM-IV-TR.

Another question examined participants for accuracy knowledge of the prevalence rate of SI. While current research has found that 11-15% of individuals in the general (non-clinical) population engage in SI (Klonsky et al. 2003; Ross & Heath. 2003:}
Whitlock, Eckenrode, & Powers, 2006), only five participants identified this percentage with the largest part of the participants only estimating the percentage at 1-5%. Since the majority of participants responded that they very rarely have students referred to them for SI, they may have underestimated the prevalence rate based on their own experience.

However, by not recognizing that researchers are finding a higher prevalence rate than in previous years, school psychologists may not recognize SI as the “next teen disorder” (Welsh, 2004) or “the anorexia of the 90s” (Edwards, 1998).

Another inaccurate understanding noted in responses was the relationship of SI to body modification, an activity often seen in adolescents. A fifth of participants (20.6%) were either unsure or believed individuals who have piercings or tattoos have a problem with SI. In addition, 44.4% believe that tattoos and piercings are indicative of SI if the person does it to himself or herself. However, body alteration is an attempt to enhance the appearance of the body; its function is separate from SI (Carlson et al., 2005; Levenkron, 1998; Simeon & Hollander, 2001; Walsh, 2006; Zila & Kiselica, 2001).

Overall, the respondents, regardless of NCSP status, demonstrated a good conceptualization of SI. When questions were examined to determine if a majority of participants (70%) demonstrated poor or good conceptualization of SI, participants demonstrated good conceptualization on three times more questions than items demonstrating poor conceptualizations. Like the responses on Jeffery and Warm’s survey (2002), overall they showed a relatively sophisticated knowledge of SI. However, gaps in their knowledge of SI are evident.

Hypothesis Two

Hypothesis Two examined if school psychologists with assessed high knowledge of CSI rate their perceived knowledge of CSI higher than school psychologists with
assessed low knowledge of CSI rate their perceived knowledge. To test this, participant groups based on high and low knowledge scores were compared to the participant's self-assessment of knowledge rating. Hypothesis Two was not supported in that school psychologists in the high knowledge score of CSI group do not rate themselves differently than school psychologists in the low knowledge of CSI group. This is interesting in that the high knowledge group mean score (84.71) on the measure was statistically greater than the low knowledge group mean score (74.63). A possible explanation may be that most participants (93.6%) rated themselves as either a 2 (somewhat knowledgeable) or a 3 (knowledgeable) limiting the range for comparison and creating a restricted numerical range for statistical analysis. Another explanation is that since participants showed a small range on the knowledge portion of survey, indicating a similar knowledge base, if they were accurate in their self-assessment of their knowledge then they would answer similarly. It is promising that while few participants rated themselves as very knowledgeable, few also rated themselves as having no knowledge.

**Research Question Two**

This portion of the survey examined professional responses to SI. A series of questions addressed school psychologists experience with youth who self-injure, perceived knowledge and confidence in working with youth who self-injure and CSI training needs.

*Experience with SI.* In reporting referral rates, 88.9% of participants have had a student referred for SI at some point in their careers. The largest group of respondents (39.7%) first became aware of SI through referral/experience working with students who self-injury, meaning that they are being sent students who are self-injuring before they have received training on how to work with the students.
In White Kress’s (2003) article on responses to SI, she discusses how self-injury is the most distressing issue or behavior encountered in mental health practice. Therefore, school psychologists need preparation for working with students who self-injure. A knowledgeable professional working with individuals who self-injure will help to limit the amount of stress felt by the school psychologist and increase sensitive and appropriate interactions with the individual. White Kress (2003) notes that education on SI increases professionals’ ability to assess and manage clients who self-injure. If school psychologists are first learning about SI through student referrals, they have not received the training they need to be able to do a thorough initial assessment.

Since White Kress notes the importance of a thorough assessment in selecting an effective intervention, by not having training on SI before working with a student, it will be more difficult for school psychologists to design appropriate interventions. Warm et al. (2002) suggested a link between the prevalence of negative and misinformed understandings about SI and the dissatisfaction clients felt about the treatment they had received. As such, Warm et al. (2002) recommended that professionals who are likely to encounter people who self-injure should receive training that will allow them to respond appropriately. For example, 81% of participants answered either yes or that they were unsure when asked if they thought SI was attention seeking. Thus, this group may dismiss the student as simply seeking attention instead providing mental health and medical attention the student needs. However, if school psychologists are not receiving training on SI before receiving referrals for students, they may not know how to respond to the students appropriately. Almost half the participants (42.9%) have not attended a professional training session on SI. Only 22% of participants have attended a professional training session in the past year. With the increasing knowledge base and
more sophisticated conceptualizations of what SI is and is not, and the increase of CSI, it is important for those working with students to be aware of these changes.

Previous research indicates that cutting is the most common form of self-injury (Alderman, 1997; Carlson, DeGreer, & Fenton, 2005; Walsh, 2006). Participants further supported cutting as most commonly encountered form of self-injury, with 87.3% of participants indicating that they have seen it or had it reported to them. It is important that school psychologist have the training to be able to assess what the needs of the student may be to determine what kind of response may be appropriate. On most of the questions asking about the relationship between SI and suicide, participants recognized the distinction between the two acts. However, when asked if “A student shows you a cut and says he tried to commit the suicide the night before” was SI, 55.6% believed that it was SI or were unsure. This figure is disturbing as the question set up a situation where the school psychologist is asked to respond to a referral and respond appropriately and over half of the participants did not correctly identify the behavior. Also, when asked if “Suicide is a precursor to pathology,” 39.7% of participants either agreed or were unsure.

While people who self-injure are more likely to consider or attempt suicide (Whitlock, Powers, & Eckenrode, 2006), the behaviors serve two different functions and are thus independent of each other (Derouin & Bravender, 2004; Levenkron, 1998; Simeon & Hollander, 2001; Walsh; 2006; Zila & Kiselica, 2001). Another explanation is that participants, in knowing that suicidality can be seen in those who self-injury, responded so because the two behaviors are not always independent of each other.

Confidence and training. Since two-thirds of the participants had at least one student referred to them for SI the previous school year and two-thirds believed that self-injury is a problem in the schools they service, it is important that school psychologist
receive the necessary training before a student is referred to them. Most participants (73%) responded that they felt “somewhat confident” or “confident” in being able to do an initial interview with a student who was referred to them about his/her SI and be able to obtain the necessary information. Although most participants indicated that they felt confident, there was only one option, “not at all confident,” in which to indicate a lack of confidence, which may have limited how people responded. The inclusion of a “somewhat unconfident” option may have allowed for a larger range of responses.

When asked if they felt like they had the tools/resources to work with a student who self-injures, 89% indicated that they would need additional tools/resources. When asked to indicate what additional resources they were most interested in, out of the response options the most requested additional resource “more training” (93.7%). When asked specifically if they were interested in receiving more training on SI, only one participant was not interested in more training, while the vast majority of remaining participants (98.4%) were interested in more training. However, only 38.1% of participants indicated that they had training on SI available to them as a resource. Of the top four resources selected (crisis response training, training in general psychological issues, have access to outside resources, professional peer support), none of them have a built-in SI component. Recommendations of researchers are that professionals who work with youth who self-injure need to have training specific to SI (Jeffery & Warm, 2002; Lieberman & Poland, 2007; Warm et al., 2002). Malikow (2006) notes how those educated about CSI will be more understanding about the problem and will likely not reinforce any fear the student may have about their CSI or fear of judgment by others. Although there are different ways for school psychologist to become knowledge about SI, Jeffrey and Warm (2002) discuss how a 1-hour training session improved approaches to
the treatment of CSI in a medical setting.

Research Question Three

This section examined how districts are responding to CSI. Part of the survey inquired if participant’s districts are using response options recommended by Walsh (2002) as part of their response plans for SI. This section also included questions on participant’s districts use of training and practices within the school environment recommended by Lieberman and Poland within the school environment.

The largest number of respondents saw their primary role in working with students who self-injury as referring students to a professional in the community, followed by individual therapy/counseling, then developing academic and/or counseling supports within the school. However, White Kress (2003) indicates without proper training on how to conduct a thorough assessment, it will be difficult for a professional to select an appropriate diagnosis and determine the severity of a student’s SI.

Both Walsh (2006) and Lieberman and Poland (2007) recommend that a well-developed crisis management plan should involve how to respond sensitively and rapidly to CSI. Despite these recommendations, only 7.9% of participants replied that their district uses a plan that specifically addresses SI. Even more concerning is that 30.1% of participants indicated that either their school/district does not use a plan or they do not know if there is a plan.

Walsh’s response plan. Walsh advocates that in order for school personnel to respond to CSI effectively they must utilize a written protocol that will allow them to respond systematically and strategically (Walsh, 2006). He outlines a protocol for schools to use specifically for crisis management of CSI. The steps in Walsh’s plan include phone contact with parents, referral to the school nurse/counselor/principal,
referral to agency outside of school (such as mental health, hospital, or police), and establishment of school support. Of those respondents that have a plan, 66.7% indicated that they used at least one the actions recommended by Walsh. Although, Walsh indicated that every activity should be an option in a school response plan, the participants did not indicate that they were all included in their response plans. Only 19% of participants responded that referring the student to the school nurse was included in their plans, and only 23.8% replied that sending the student for medical care was included. Due to how medically serious the behavior can be, it is troubling that these activities are not included in more school plans. While 69.1% of participant’s have some type of crisis response plan to reference, they composition of the plans do not included all the activities recommended by Walsh. Onacki (2005) also recommends that schools have a set protocol in which all referrals go to a school team that then initiates the assessment. However, the majority of participants do not have such a protocol.

*Lieberman and Poland’s training activities.* The first step in preparing any school personal to deal with CSI is comprehensive training (Lieberman & Poland, 2007; Onacki, 2005; Walsh, 2006). Walsh (2006) outlines a training series for school professionals that includes how to identify CSI and distinguish it from other behaviors and how to respond effectively in a low-key, dispassionate manner. Lieberman (2004) discusses the importance of all school staff members having training on how to identify CSI and responding appropriately without criticism or horror. This is important so that when school psychologists first work with the student they are able to obtain all the necessary information without making the student feel ashamed of their behavior, which may lead to the student being more unwilling to seek help for future SI. Of respondents that use school response plans, 49.2% have not had staff training on SI. It is problematic that
some of the districts that have some type of plan have not had staff training. One reason for this may be the number of participants that indicated that the type of plan their district used is a general crisis management plan that does not address SI specifically. If, in using such plans, the staff has also not been trained in working with students who self-injure, then general crisis management plans may not be useful to school psychologists and the students referred to them for SI. Lieberman (2004) recommends that training should include the appropriate steps to be taken, such as determining appropriate support resources (e.g., parents, private mental health professional), notifying the parents, and coordinating with relevant community services.

Although SI has been found to have a contagious effect among adolescents within certain settings (Lieberman & Poland, 2007; Walsh, 2006; Whitlock, Powers, & Eckenrode, 2006), the majority of participants (90.5%) have not received any training on how to reduce contagion within their schools. Without this training, school psychologist may not be prepared to identify and work with peers who are engaging in CSI as part of a social group. With the threat of contagion being evident in adolescent settings, school psychologists need to be prepared to limit this threat. By including how to reduce contagion in staff training, professionals can know how to reduce the threat of other students copying another student’s SI.

Limitations

Response rate. One of the major limitations of the study was the low response rate of 6.4%. One reason for the low rate may have been the timing of the survey invitations. The survey was for school psychologists who are currently practicing. At the time the initial postcard mailing, at the beginning of June, some of the professionals may have finished working for the school year. Because NASP only provided their mailing
address for the potential participants, it could not be known if the survey invitation was going to the person’s home address or work address. If the card was sent to the person’s work address, they may not have been there to receive it. In addition, because many schools years ended around that time, participants may have been out of town on vacation and not have received the postcard. Another reason for the low response rate may have been a lack of interest or exposure to the topic. Some potential participants may have not felt as if they had enough experience with SI to answer survey questions about it. In addition, while the postcards were mailed, the respondents had to access the website on the internet, meaning that the individual had to have access to a computer and internet to complete the survey. Because of the low response rate, generalizability to school psychologists in general is limited. As such, interpretation of results to others in the field should be done with reservation.

Participant demographics. Participants in the survey tended to be similar, as most of them are characterized as Caucasian, young, females, with a Master’s or Ed. S. Because sample demographics have a restricted distribution, it is hard to generalize the findings to other demographics of school psychologist. However, because participants’ demographics were similar to demographics reported by NASP membership, the sample may still be considered representative of school psychologists. In addition, the similarities among the participants may be due to a self-selection bias, in that those that answered the survey may have selected to do so because of their demographics. For example, school psychologists new to the field may be more interested in and more knowledgeable about SI and thus have been more likely to select to fill out the survey. As such, self-selection may be a threat to internal validity.

Another important consideration is that the results are based on a survey that was
taken independent of the researchers. As such, the possibility of participants misunderstanding the questions exists. Thereby the variance between responses may be due to the respondent perceiving the questions differently than intended. Another consideration is, although other professionals checked the survey to insure both breadth and clarity of response options, not all possible responses may have been included, and thus participant’s true answers may not have been represented. By limiting the response options, the range of possible information obtained was also limited.

Practical Implications

One implication of the present study is that school psychologists, while lacking some contemporary knowledge, have as a group high knowledge about SI. As such, schools psychologists appear to be useful resources for districts to use in dealing with student SI. A majority of participants indicated that they do not often work with students who self-injure, although most have had a student referred to them. In considering this information, school psychologist training might be better geared toward being able to perform a comprehensive intake assessment following referral rather than concentrating on training in working with students who self-injure.

Another implication of the current study is the need for more districts to have a comprehensive, established management plan to use in working with students who self-injure. While participants indicated that they do not often work with students who self-injure, 88.9% of participants have had a student referred for SI. Walsh advocates that in order for school personnel to respond to CSI effectively they must utilize a written protocol that will allow them to respond systematically and strategically (Walsh, 2006). Of those that did use a set protocol, not all the participants used as comprehensive a protocol as recommended by Walsh. In considering the present research, districts should
reevaluate their existing plans, as not all the response options recommend by Walsh (2002) are evident. By having a comprehensive, plan to follow, school psychologists can help to insure that they are responding appropriately to the student’s needs.

More training on CSI was the most frequently selected additional resource by participants. Some districts that have set plans for addressing SI had not had staff training on SI. If all staff members have been trained to address SI, then they will be able implement crisis management plans more effectively. In addition, most participants indicated that their district have not had staff training on reducing contagion. Staff training on contagion can help to insure that professionals have the skills to minimize the threat of CSI spreading though their schools.

Further Research

While the results of this study provide information about responses to CSI, because of the low response rate further research with a more comprehensive sample is needed to support and possibly clarify these results. In that some problems were noted in the knowledge base of the school psychologists surveyed, there is a need for professional development in regards to contemporary understandings of CSI. Since participants exhibited strong knowledge of SI, research to determine where school psychologists are learning about CSI would be useful in order to aid with future training needs.

Another area for future research is how districts are addressing SI. Since a large portion of participants do not have any crisis management plan for dealing with SI, and many other plans do not address SI specifically, this study gained little information about what schools are doing when students are referred for SI. Future research addressing what schools are doing with SI referrals when they do not have a set crisis management plan will also be useful. In addition, with the threat of contagion prevalent in adolescent
settings where SI is present, research on contagion in school settings can also help guide further training. While participants indicated that they rarely have students referred to them for SI, the students that Walsh (2006) termed “high status instigators” or what Lieberman and Poland (2007) termed “the alpha male/female,” may be the students who are referred, while their peers who are also injuring are not as noticeable and thus not referred. Future research examining how prevalent contagion is among students will determine the need and form of staff training on reducing the threat of contagion.

In addition, participants indicated that they are not the only professionals who work with students who CSI. Other professionals, such as school counselors and teachers, are interacting with students who self-injury, and for some districts who utilize crisis management plans, are included on the teams for working with students who self-injury once they have been referred. As such, research into how knowledgeable these other professionals are about SI, using Jeffery and Warm’s (2002) myths questionnaire, will also benefit the research on school responses to CSI.
References


Appendix A

Postcard Invitation
Dear NASP Member,

You are being invited to participate in a survey of your knowledge of and experiences working with students who engage in self-injurious behaviors conducted through the Department of Psychology at Western Kentucky University. The purpose of this survey is to gain information on the experiences school psychologists have in working with students who self-injure. Even if you have not worked with any students who engage in this behavior, we ask that you complete this short survey (15-25 minutes). You may access the survey at the website below. Once you have completed the survey, you will have the option of emailing your contact information to the researchers in order to be included in a raffle to win one of two $25 Amazon.com gift certificates.

If you have any questions regarding the survey or the results, please contact the researchers Amy Beld at amy.beld@wku.edu or Elizabeth Jones at elizabeth.jones@wku.edu or Sean Rubino, Compliance Manager for WKU, at sean.rubino@wku.edu.

Thank you in advance for taking the time to complete this survey.

To participate in this survey go to:

www.wku.edu/~amy.beld
Appendix B

Survey
2) Age: ______________

3) What is your race/ethnicity?
   - African American
   - Asian
   - Caucasian
   - Hispanic
   - Native American
   - Other: _______________

4) What is your gender?
   - Male
   - Female

5) How many years of experience have you had as a school psychologist?
   - 0-5
   - 6-10
   - 11-15
   - 16-20
   - 21-30
   - 31 and above

6) What is the highest degree that you have earned in the field of school psychology?
   - M.A. or M.S.
   - Ed.S
   - Ed.D
   - Ph.D.
   - Other advanced degree: _______________

7) What year did you receive your highest degree in school psychology? ______________

8) Are you a NCSP?
   - yes
   - no

9) In what city/state do you practice? ______________

10) Do you currently practice in a public or private district/school?
    - Public
    - Private
    - Other: _______________

11) How long have you been with your current district? ______________
12) On estimate, how many students are in your district?
   o Less than 5,000
   o 5,001 -15,000
   o 15,001-25,000
   o 25,001 -35,000
   o 35,001- 45,000
   o Over 45,000

13) Location of Schools:
   o Metro (250,000+)
   o Urban Large (100,000-249,999)
   o Urban Middle (50,000-99,999)
   o Town Large (25,000-49,999)
   o Town Small (2,500 – 24,999)
   o Rural (less than 2,500)

**Current Knowledge of Self-Injury (SI)**

In this survey the term self-injury will be used. Self-mutilation, self-harm, deliberate self-harm, deliberate self-mutilation, and cutters are other terms used to identify this behavior.

Based on you current knowledge of SI, please answer the following questions:

14) Please indicate to what extent you agree with the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-injury is a form of communication.</td>
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<td>Self-injury is a sign of madness.</td>
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<td>Self-injury provides a way of staying in control.</td>
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<td>Self-Injury provides distraction from thinking.</td>
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<td>People who self-injure will “grow out of it” eventu-</td>
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<td>ally.</td>
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<td>Self-injury is a manipulative act.</td>
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<td>People who self-injure can obtain feelings of eupho-</td>
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<td>Self-injury is a “woman’s problem.”</td>
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<td>Self-injury is a release for anger.</td>
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<td>Self-injury expresses emotional pain.</td>
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<tr>
<td>Statement</td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Unsure</td>
<td>Agree</td>
<td>Strongly Agree</td>
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<tr>
<td>The best way to deal with people who self-injure is to make them stop.</td>
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<td>People who self-injure have been sexually abused.</td>
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<td>Self-injury is a failed suicide attempt.</td>
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<td>Self-injury helps deal with problems.</td>
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<td>Self-injury is a coping strategy.</td>
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<td>Self-injury is attention-seeking.</td>
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<td>Self-injury helps a person maintain a sense of identity.</td>
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<td>Everybody who self-injures suffers from Munchausen’s Disease (self-inflicted injuries which are calculated to produce specific symptoms that will lead to medical hospital admissions).</td>
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<td>Self-injury provides escape from depression.</td>
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<td>People who self-injure should be kept in psychiatric hospitals.</td>
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</table>
15) Please indicate the extent to which you think the following are examples of SI:

| A student shows you a cut and says he tried to commit suicide the night before. | Strongly Disagree | Disagree | Unsure | Agree | Strongly Agree |
| A student tells you that she burns the inside of her thighs when she fails a test. | | | | | |
| A student comes into your office with multiple piercings. | | | | | |
| A student will severe psychosis blinds herself. | | | | | |
| When you ask a student about a series of scars on his arm, he tells you that he did them during a ritual for a social group he belongs to. | | | | | |
| A student tells you that to relieve test anxiety she pulls out her hair and eyebrows. | | | | | |
| A student tells you he hurts himself to “relax.” | | | | | |
| A student tells you that he cuts himself so that his friends will think he is dangerous and cool. | | | | | |
| A student tells you that when he gets upset he punches the wall until he breaks bones. | | | | | |
| A student tells you that her sports team branded her during an initiation. | | | | | |
| A student tells you that the previous weekend while intoxicated he broke his ankle when he jumped off a high wall. | | | | | |
| A student tells you that she cuts herself to “feel alive.” | | | | | |
A student on the Autism spectrum repeatedly bangs his head on his desk.

A student tells you that she picks at wounds she gets to keep them from healing.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

16) Please indicate to what degree you think that SI is related to suicide:

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
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</thead>
<tbody>
<tr>
<td>SI is a form of suicide.</td>
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<tr>
<td>SI is a precursor to suicide.</td>
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<tr>
<td>Suicidality may be seen in individuals who SI.</td>
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<td>SI is distinct from suicide.</td>
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</tbody>
</table>

17) Please indicate your agreement with the following statements about SI:

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>SI is a precursor to psychopathology.</td>
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<tr>
<td>SI is distinct from psychopathology.</td>
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<tr>
<td>SI can be a feature associated with psychopathology.</td>
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<tr>
<td>Individuals who have body piercings and/or have tattoos have a problem with SI.</td>
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<tr>
<td>Tattoos and/or body piercing are only indicative of SI if the person does it to themselves.</td>
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<tr>
<td>SI is distinct from tattooing and/or body piercing.</td>
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</tbody>
</table>
**Self-Injury Defined:**

For the purposes of the rest of the survey, please only refer to self-injurious behaviors that happen without the presence of a psychotic state (such as schizophrenia) and do not have organic or developmental roots, such as a developmental disability (e.g., autism spectrum disorder, intellectual deficit).

Specifically use the following definition when the term self-injury (SI) is used:

*Self-injury is the socially unaccepted, deliberate, self-inflicted harm of an individual’s body to reduce psychological distress, without the intention to die as a consequence.*

18) What percentage of individuals in the general (non-clinical) population engages in SI?
   - >1%
   - 1%-5%
   - 6-10%
   - 11-15%
   - 16-20%
   - <20%

19) At what age do most people begin to engage in SI?
   - Below 9 years
   - 9-15
   - 16-22
   - 23-30
   - 31 and over
20) Please indicate your agreement with the following statements:

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
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<td>SI is evident in the popular media (internet, music, movies, tv, magazines).</td>
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<td>Internet forums (message boards, chat rooms, blogs) specifically about SI are easily accessible.</td>
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<tr>
<td>The media (internet, music, movies, tv, magazines) has become a mechanism for spreading information about SI.</td>
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<td>SI can be contagious.</td>
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<td>“Self-Injurious Behavior” is a DSM-IV-TR diagnostic category.</td>
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### Strategies For Working With Youth Who SI

**SI Knowledge/Experience:**

21) How did you first become aware of SI?
   - Journal/Professional Newsletter
   - Lecture/Training Session
   - Media (popular press, tv, internet)
   - Referral/Experience working with students who SI
   - Other: ______________________
   - Have no knowledge (experience or training) about SI

22) Which outlet has become your main information source on SI?
   - Journal/Professional Newsletters
   - Lecture/Training Sessions
   - Media (popular press, tv, internet)
   - Referral/Experiences working with students who SI
   - Other: ______________________
   - Have not received information about SI
23) On estimate, how many students have you worked with who SI during the last school year (2006-2007)?
- None
- 1-5
- 6-10
- 11-15
- 16-20
- >20

24) If someone else works with the students in your school who SI, how many students do you estimate engaged in SI last school year (2006-2007) in the schools you service?
- None
- 1-5
- 6-10
- 11-15
- 16-20
- >20

25) Please indicate to what extent you agree with the following statement:

<table>
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<tr>
<th>SI is a problem in the schools I service</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
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</table>

26) What forms of SI have you seen, or have been reported to you by student(s)? (please select all that apply)
- 1. Cutting
- 2. Scratching
- 3. Burning
- 4. Punching, hitting (self or objects)
- 5. Breaking bones
- 6. Pulling out hair
- 7. Picking at scabs to interfere with healing
- 8. Banging body parts on objects
- 9. Ingesting harmful materials
- 10. Other: ______________________
- None
27) If you answered other than "none" on the previous question, of the above options what are the three most common forms of SI that you have seen or students have reported? Place your response in rank order with 1 being the most often seen, 2 being equal or less often than 1 and 3 equal or less often than 2
(27)____________________
(28)____________________
(29)____________________

30) How knowledgeable are you about SI?
   o 1 Know nothing about SI (Was not covered in a training program, have not read scholarly work on it)
   o 2 Somewhat knowledgeable (Are aware of it in the popular media, talked with other professionals about SI)
   o 3 Knowledgeable (Have read scholarly work, attended a training session, had experience working with someone who SI)
   o 4 Very knowledgeable about SI (Have read extensively about SI, attended multiple lectures/training sessions on SI)

31) Given your current knowledge of SI, how confident would you be working with someone who self-injures?
   o 1 Not at all confident
   o 2 Somewhat confident
   o 3 Confident
   o 4 Very confident

32) Assuming adequate training and knowledge, how comfortable are you/would you be working with someone who self-injures?
   o 1 Very comfortable, it would not bother me at all
   o 2 Comfortable
   o 3 Slightly uncomfortable
   o 4 I would not feel comfortable

33) How confident do you feel in being able to do an initial interview with a student who has been referred to you about his/her SI and obtain the necessary information?
   o 1 Not at all confident
   o 2 Somewhat confident
   o 3 Confident
   o 4 Very confident
34) What would assist you in feeling more confident in working with students who self-injure? (please check all that apply)
   o More training
   o More experience working with someone who SI
   o Supervised experience
   o A set plan for dealing with students who SI (such as a school policy or procedure)
   o A more specific plan for dealing with students who SI
   o Talk with other professionals who work with students who SI
   o Other: ________________________________
   o Nothing

35) Do you feel like you have the skills/tools to work with a student who SI?
   o No, I do not feel like I have any skills/tools
   o Some, but I would need a lot of assistance
   o Yes, I have some skills/resources and would seek additional support
   o Yes, I could do it all on my own

36) What training or resources do you have available? (please check all that apply)
   o Training on SI specifically
   o Crisis response training (not for SI specifically)
   o Training in general psychological issues
   o Have read books on SI
   o Have read an article in a professional journal on SI
   o Have read books on general psychological issues
   o Have a set crisis plan to follow
   o Have access to outside resources for information (Local treatment groups, NASP website)
   o Professional peer support
   o None

37) If you have attended a professional training session on SI, when was the most recent training session you attended?
   o Within the last calendar year
   o 1-5 years ago
   o 6-10 years ago
   o 11-15 years ago
   o 16-20 years ago
   o Over 20 years ago
   o Have not attended professional training on SI

38) Would you like to receive more training in SI?
   o 1 Not interested
   o 2 Somewhat interested
   o 3 Interested
   o 4 Very interested
The following questions relate to how you or your district/school responds to SI.

39) On estimate, how frequently are students referred to you for SI?
   - Daily
   - Weekly
   - Monthly
   - Very rarely
   - Never

40) What is your primary role to be in working with students who self-injure?
   - Individual therapy/counseling
   - Refer student to a professional in community (ex: therapist, social worker, hospital)
   - Be able to provide a student with information (ex: books or pamphlets on SI, website addresses for support groups)
   - Develop academic and/or counseling supports within the school
   - Contact parents
   - No role
   - Other

41) Are other professionals in your district responsible for dealing with SI?
   - Yes
   - No

42) If so, which professional(s) are responsible for responding to youth who SI? (please check all that apply)
   - Another school psychologist
   - School social worker
   - School counselor
   - School nurse
   - School therapist
   - Other: ____________________
   - I don’t know

43) Does your district have a specific plan for dealing with students who self-injure, or do you have a generic plan used for a variety of student related crisis/problems?
   - Specific Plan (addresses SI specifically, separate from other response plans)
   - Inclusive Plan (addresses SI specifically, but is part of larger response plan)
   - Generic Plan (Have a general emergency/crisis response plan to address issues like SI, but response to SI not specified)
   - No plan utilized
   - I don’t know
If you chose either 4 ("No plan utilized") or 5 ("I don’t know") on the previous question please select “n/a” for the remainder of the questions. If you answered either 1, 2, or 3 please select a response to the following questions.

44) If you use a specific plan or crisis response, do you use your own or one written by the school/district?
   - Own
   - School/District
   - n/a

45) If you use a plan designed by the school, who designed it?
   - Individual (School counselor, school nurse, social worker, outside researcher)
   - School committee, interdisciplinary with mental health involvement
   - School committee, interdisciplinary without mental health involvement
   - I don’t know
   - n/a

46) Which of the following options/actions are included in your school response to SI? (select all that apply)
   - Assess/ Talk to student
   - Call parents
   - Refer student to school administrator
   - Refer student to school nurse
   - Refer student to school mental health staff
   - Encourage student/parent to seek mental health support outside of school
   - Refer student to police
   - Send student to hospital/medical care center
   - Ask student/parent for permission to develop academic and/or counseling supports within the school itself
   - Document incident
   - Do not know what steps are included in the plan
   - n/a

47) If your district had a staff training on SI, which of these activities were included? (please select all that apply)
   - The staff was trained on the full range of SI, including direct and indirect SI
   - The staff was trained on how to differentiate SI from suicide
   - The staff was trained on how to ascertain which SI wounds are in need of medical attention (e.g., wounds that need suturing, wounds that are infected)
   - The staff was trained on how to differentiate between SI and body modification (e.g., tattooing, body piercing)
   - The staff was trained on how to respond to SI in a low-key, dispassionate tone
   - The staff was trained on how the school needs to respond to the student’s treatment (e.g., not to expect rapid extinction of the behavior).
   - The staff was trained on how to reduce contagion.
   - Our district has not had a staff training on SI
48) If your district’s training included how to reduce contagion, which of these activities were included (please select all that apply)
   - How to reduce communication about SI among peer groups
   - How to reduce public exhibition of wounds
   - How to deal with groups, such as group therapy vs. individual therapy
   - Our district has not had a staff training on SI
Appendix C

Informed Consent
STUDY INFORMATION/INFORMED CONSENT DOCUMENT

Project Title: Self Injury in the Schools: A Survey of School Psychologists

You are being asked to participate in a project conducted through Western Kentucky University investigating school psychologists’ knowledge and experience working with youth who self-injure. The University requires that you give your signed agreement to participate in this project by clicking on the “I Agree” button below.

If you have any questions about the purpose of the project, the procedures to be used, and the potential benefits or possible risks of participation please contact the investigators through the email addresses indicated below. You may ask him/her any questions you have to help you understand the project. A basic explanation of the project is written below. Please read this explanation and discuss with the researcher any questions you may have.

If you then decide to participate in the project, please click the “I Agree” at the bottom of this text.

1. **Nature and Purpose of the Project:** The purpose of this survey is to gain information on the different experiences school psychologists may have in working with students who self-injure. Even if you have not worked with any students who engage in this behavior, please complete the survey.

2. **Explanation of Procedures:** Upon your consent, you will be asked to complete a short survey (15-25 minutes) that can be accessed by clicking the “I agree” button below. You will be asked 46 questions regarding your demographic information, knowledge of self-injury, experience working with students who self-injure, and your school’s responses to students who self-injure.

3. **Discomfort and Risks:** There are no risks associated with filling out this survey.

4. **Benefits:** Upon completion of the survey, you can be entered into a raffle for one of two $25 gift certificates to Amazon.com. The results of this survey will provide better information on the roles and experiences of school psychologists with relation to self-injury in schools. School psychologists, and those served by the profession, will benefit in that this research will not only offer an idea of school psychologists’ current conceptualizations of self-injury and how they are working with these students in the schools, but it will also offer information on the possible need for additional resources for school psychologists.

5. **Confidentiality:** All responses to the survey will be kept in a database that is blind to your name and any email or Internet information.

6. **Refusal/Withdrawal:** Refusal to participate in this study will have no effect on any future services you may be entitled to from the University. Anyone who agrees to participate in this study is free to withdraw from the study at any time with no penalty.
If you have any questions regarding the survey or results, please contact Amy Beld at amy.beld@wku.edu or Elizabeth Jones at elizabeth.jones@wku.edu, Department of Psychology, Western Kentucky University. You may also contact the Compliance Manager for WKU, Mr. Sean Rubino, (270) 745-2129, sean.rubino@wku.edu.

Thank you in advance for your participation and support by taking the time to fill out the following information.

You understand also that it is not possible to identify all potential risks in an experimental procedure, and you believe that reasonable safeguards have been taken to minimize both the known and potential but unknown risks.

☐ I agree  ☐ I decline
Appendix D

Follow Up Postcard
Dear NASP Member,

This notice is to remind you that you have been invited to go to http://www.wku.edu/~amy.beld/ to participate in the survey on self-injurious behavior. Your participation is appreciated whether or not you have any direct knowledge or experience working with youth who self injure. Once you have completed the short survey (15-25 minutes), you will have the option of emailing your contact information to the researchers in order to be included in a raffle to win one of two $25 Amazon.com gift certificates.

If you have already completed the survey, thank you for taking the time to do so!

If you have any questions regarding the survey or the results, please contact the researchers Amy Beld at amy.beld@wku.edu or Elizabeth Jones at elizabeth.jones@wku.edu or Sean Rubino, Compliance Manager for WKU, at sean.rubino@wku.edu.
Appendix E

Letter of Human Subjects Review Board Approval
In future correspondence please refer to HS07-132, February 19, 2007

Amy Beld

c/o Dr. Elizabeth Jones

Department of Psychology

WKU

Dear Amy:

Your revision to your research project, “Self-Injury in the Schools: A Survey of School Psychologists,” was reviewed by the HSRB and it has been determined that risks to subjects are: (1) minimized and reasonable, and that (2) research procedures are consistent with a sound research design and do not expose the subjects to unnecessary risk. Reviewers determined that (1) benefits to subjects are considered along with the importance of the topic and that outcomes are reasonable; (2) selection of subjects is equitable; and (3) the purposes of the research and the research setting is amenable to subjects’ welfare and producing desired outcomes; that indications of coercion or prejudice are absent, and that participation is clearly voluntary.

1. In addition, the IRB found that you need to orient participants as follows: (1) signed informed consent is not required as “clicking” on the appropriate button will imply consent; (2) Provision is made for collecting, using and storing data in a manner that protects the safety and privacy of the subjects and the confidentiality of the data. (3) Appropriate safeguards are included to protect the rights and welfare of the subjects.

This project is therefore approved at the Expedited Review Level until September 1, 2007

2. Please note that the institution is not responsible for any actions regarding this protocol before approval. If you expand the project at a later date to use other instruments please re-apply. Copies of your request for human subjects review, your application, and this approval, are maintained in the Office of Sponsored Programs at the above address. Please report any changes to this approved protocol to this office. Also, please use the stamped Informed Consent documents that are included with this letter. A Continuing Review protocol will be sent to you in the future to determine the status of the project.

Sincerely,

Sean Rubino, M.P.A.
Compliance Manager
Office of Sponsored Programs
Western Kentucky University

cc: HS file number Beld HS07-132
Appendix F

Debriefing Statement
Thank you for participating in this study!

Participants who complete this survey are eligible to participate in a raffle for one of two $25 amazon.com gift cards. To participate in the raffle please provide your name and your postal address to the researcher's email address provided below. Your response will be independent from your survey responses and will only be used to determine raffle results. You may also contact the researcher if you are interested in the results of the survey.

amy.beld@wku.edu
Amy Beld
Western Kentucky University