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Peer Perceptions of Self-injurious Behavior

Fantom Shakeria Smith
Western Kentucky University, davisfs@wku.edu

PEER PERCEPTIONS OF SELF-INJURIOUS BEHAVIOR

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PEER PERCEPTIONS OF SELF-INJURIOUS BEHAVIOR

Date Recommended __May 13, 2009_____

_Elizabeth Jones_____
Director of Thesis

_Frederick Grieve_____

_Jacqueline Pope-Tarrence_____

_____
Dean, Graduate Studies and Research Date

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PEER PERCEPTIONS OF SELF-INJURIOUS BEHAVIOR

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Directed by: Elizabeth Jones, Rick Grieve, and Jacqueline Pope-Tarrence

Department of Psychology Western Kentucky University

Students of a south central university provide data for this study investigating knowledge of self-injury (SI), experiences with those who self-injure, and perceptions of SI. This study proposes that college peers of those who self-injure have higher levels of SI knowledge than professionals who work with individuals who self-injure. In addition, the study proposes that individuals who have experience with others who self-injure have higher levels of SI knowledge than individuals who do not have experience with others who self-injure. An additional purpose of this study is to explore information regarding experiences people have with others who self-injure and their perceptions of self-injurious behavior. A convenience sample of 495 members solicited from psychology courses at a south central university completed the survey, which consisted of four sections including the following: demographics, knowledge of SI, experiences with SI, and perceptions of SI.

The knowledge section of the survey contains a 20-item measure previously used by Jeffrey and Warm (2002). A knowledge score was created based on participants responses to these 20 items. This score was used in the analysis of both hypotheses one and two. Results indicate that participants have a poor understanding of SI, based on their mean knowledge score. In addition, results reveal that the current sample's mean SI knowledge level is lower than seven of the seven groups' mean knowledge scores. Mean

knowledge scores are significantly greater for individuals indicating experience with others who self-injure than individuals reporting no experience with others who self-injure as assessed through independent *t* tests. Descriptive information indicates that participants do not reject those who self-injure, but rather are supportive in peer relationships with others that engage in the behavior. However, participants indicate considerable confusion surrounding the behavior and are generally not accepting of the behavior, choosing to encourage cessation of the behavior. Limitations discussed include sample demographics, possibility for misinterpretation of survey items, and potential social desirability bias.

Introduction

While once considered a taboo topic, self-injurious behavior is an increasing focus for researchers and is a commonplace occurrence in the popular media. This rise in awareness is not surprising given statistics estimating a growth rate of 150% in the population over a 20-year period (Walsh, 2006). Approximately 4% of the general adult population (Briere & Gil, 1998), 4% of an Air Force population (Klonsky, Oltmanns, & Turkheimer, 2003), and 21% of clinical populations (Muehlenkamp, Gutierrez, Osman, & Barrios, 2005) engage, or have engaged, in some form of self-injurious behavior. In addition, prevalence estimates range from 12% to 38% in adolescent populations (Favazza, 1992; Muehlenkamp & Gutierrez, 2004). Specifically, a study of the youth in Britain reported a ten percent prevalence rate, an increase of 65% between 2002 and 2004 (Young People and Self-Harm: A National Inquiry, 2004). More recently, Whitlock, Eckenrode, & Silverman (2006), found that 17% of college students have participated in at least one instance of self-injurious behavior. Current studies support that the prevalence rate is increasing as evidenced by rates of 37.2% and 26.1% among West and East coast adolescents, respectively (Yates, Tracy, & Luthar, 2008).

It is important to note that self-injurious behavior encompasses a broad spectrum of behaviors, ranging from more severe methods, such as limb amputation and eye enucleation, to less severe forms, such as lip or hand chewing and skin scratching. While researchers use varying definitions of self-injurious behavior, this study defines self-injurious behavior as intentional self-harm to an individual's body that is socially unacceptable and is used to reduce psychological distress (Walsh, 2006). This particular definition encompasses a moderate form of self-injurious behavior that includes methods

such as cutting, burning skin, scratching, pulling hair, and punching objects. Each of these methods is carried out to cause physical harm to oneself, but not in an attempt to end one's life. In addition, common self-injurious behavior is typically performed by a new group of adolescent self-injurers with characteristics different from those studied by previous researchers or addressed in existing classification systems (Walsh, 2006). This group of adolescent self-injurers is the main focus of the present study. For the remainder of the study, common self-injurious behavior refers to self-injury performed by the group of nonclinical adolescent self-injurers, whereas self-injurious behavior is a broader term that refers to self-injury performed by all groups of self-injurers.

Adolescence typically encompasses the age span of 12 to 18 years. The target population for this review is college-aged individuals. However, there is little research regarding college populations and the presence of nonclinical self-injury associated with common self-injury. Adolescents and college-aged individuals share many similarities in regard to peer interaction. Therefore, for the remainder of this study, the term "adolescence" is distinguished from the college population under investigation; however, information on adolescence is included to provide information regarding common self-injurious behavior and peer relationships.

Research studies focusing on self-injurious behavior are beginning to identify the precursors, functions, characteristics, assessment, and treatment of self-injurious behavior. Self-injury has previously been noted to have an onset in mid to late adolescence with a slow decline in early adulthood (Briere & Gil, 1998). However, recent research has identified that for many adolescents, self-injury is limited to the adolescent years. This adolescent-limited group of self-injurers is noted to cease self-

injuring as opposed to clinical populations who commonly continue the behavior well into and throughout adulthood (Walsh, 2006). Whitlock, Powers, and Eckenrode (2006) provide further evidence that self-injurers with clinical diagnoses tend to exhibit a lifelong course of self-injury, while adolescent self-injurers (those that fit within common self-injurious behavior) exhibit an adolescent-limited course of self-injury.

Despite the increased research effort into the area of adolescent self-injury, less emphasis has been placed specifically on college populations. Only recently has self-injury been investigated in college populations. Further, no research to date has been identified as focusing on the area of peer knowledge and perceptions of self-injurious behavior in the college population. In that there are increasing numbers of self-injury in adolescent and college populations, it is important to ascertain peer perceptions due to the potential impact on adolescent and post adolescent development.

Due to the influence peers hold during adolescence and early adulthood as well as the increasing prevalence rates among these populations, this gap in the research needs to be addressed. The following is a review of the existing research on the topic of self-injurious behavior that will provide a background for the present study and is a rationale for why peer knowledge and peer perceptions of self-injury needs to be addressed.

Literature Review

Definition and Classification of Self-Injurious Behavior

While literature on self-injury (SI) has been evident for many years, adolescent SI/common SI, the focus of this study, is a recent conceptualization. In general, SI includes those behaviors that are intentionally committed against one's own body. SI is distinct from suicide, although it is also considered to be an inappropriate action in society. While suicide is attempted in order to end feelings, SI is committed to alleviate negative feelings (Favazza, 1998). Body alterations such as tattooing or piercing, while intentionally inflicted on the body, are commonplace in today's society and are generally not considered inappropriate actions. Furthermore, body alterations are typically performed in order to change or enhance one's appearance, which is not the function of SI. Thus, a recent definition that encompasses these findings is as follows: "self-injury is intentional, self-effected, low-lethality bodily harm of a socially unacceptable nature, performed to reduce psychological distress" (Walsh, 2006, p. 4).

Simeon and Favazza first proposed a classification system for SI in 1993, with the most recent version produced in 2001. The classification system organizes a wide range of self-injurious behaviors into four categories: Stereotypic SI, Major SI, Compulsive SI, and Impulsive SI. The four categories differ in the associated clinical diagnoses, functions, rates, patterns of use, and level of damage associated. The first category, Stereotypic SI, includes biologically driven behaviors most often connected with mental disorders such as mental retardation and developmental delays. Typical behaviors include head banging, lip and hand chewing, self-biting, hair pulling, and other repetitive

behaviors that cause mild to severe tissue damage. Stereotypic SI is highly repetitive in nature and involves a fixed pattern of use (Simeon & Favazza, 2001).

The second category, Major SI, typically occurs in people suffering from severe psychosis, intoxication, or character disorders, and includes more severe or life-threatening injuries. Such injuries include, but are not limited to, castration, limb amputation, and eye enucleation. People who engage in Major SI do not recognize the irrationality of the behavior, report no pain, and typically experience calm before, during, and after the injury occurs. Within this category, the SI may be impulsive or planned, and is typically associated with isolated occurrences (Simeon & Favazza, 2001).

The third category, Compulsive SI, includes repetitive behaviors that are executed on impulse, and consists of hair pulling, moderate to severe nail biting, and skin picking. People who engage in Compulsive SI may wish to resist the impulse, but find difficulty doing so. This category is most commonly associated with impulse disorders, such as Trichotillomania (Simeon & Favazza, 2001).

The fourth category, Impulsive SI, includes behaviors such as burning, skin cutting, and self-hitting. These behaviors may be isolated incidents or habitual acts. There are two types of Impulsive SI: episodic and repetitive. Episodic SI is associated with a limited number of incidents during a person's life, while repetitive SI is more frequently connected with reoccurring self-injury that has a more addictive quality. Impulsive SI is more associated with personality disorder diagnoses, such as Borderline Personality Disorder and Antisocial Personality Disorder (Simeon & Favazza, 2001).

Simeon and Favazza's Compulsive and Impulsive categories are criticized for not always being easily differentiated, as it is not uncommon for those that engage in SI to

demonstrate qualities associated with both categories (Walsh, 2006). Thus, some researchers are beginning to propose new conceptualizations of these classifications. For instance, Walsh (2006) developed a new classification system that recognizes that SI can be both compulsive and impulsive in nature for some individuals. Walsh's classification system is based on his experience working with those that engage in SI, particularly adolescents, who present with both impulsive and compulsive qualities. In addition, Walsh notes the new occurrence of SI involving individuals void of diagnosable clinical disorders, strikingly different from the individuals on which Simeon and Favazza's classification system is based. Thus, Walsh has termed a new category, Common Self-Injury (CSI), which encompasses his findings.

Walsh (2006) notes several distinguishing features of CSI that distinguish CSI as separate from Simeon and Favazza's classification. CSI evidences a briefer time span for the behavior ranging from early to mid adolescence through late adolescence/early adulthood. While previous research has indicated a correlation between SI and physical and sexual abuse, individuals with CSI report a much lower history of abuse prevalence. In addition, other co-occurring problems frequently associated with SI, such as family dysfunction and eating disorders, are noted in lower frequency in CSI. Walsh also indicates that many individuals with CSI also deny a history of family problems and report normal attitudes concerning their body image. Additionally, a majority of those with CSI do not meet criteria for any specific clinical diagnosis within the *Diagnostic and Statistical Manual of Mental Disorders*-IV-TR (American Psychiatric Association, 2000). Walsh notes that adolescents with CSI appear to be meeting the demands of daily life and lack a decrease in functioning that is generally associated with other forms of SI. Thus,

this newly conceptualized category of self-injurers appears to be functioning well in society.

Differentiation between Self-Injury and Suicide

Many who self-injure do not report suicidal thoughts prior to or during the self-injurious acts, and indicate that they do not intend to die from their self-injury (Simeon & Favazza, 2001). In fact, in a study of college students, 66% of those that reported self-injurious behavior indicated never considering or attempting suicide (Whitlock, Eckenrode et al., 2006). However, other studies indicate that between 28% and 41% of those who self-injure report suicidal thoughts at some point (Favazza, 1996). In addition, a study conducted by Whitlock and Knox (2007) suggests that SI is a strong predictor of suicidality and that risk of suicidality increases as SI frequency increases. Thus, while researchers indicate that SI and suicidality serve two distinct functions, those who self-injure may have an increased risk of suicidal thoughts and/or attempts and this increased risk escalates with the frequency of self-injury.

Methods of Self-Injury

The largest sample to date investigating the various methods of self-injury was conducted by Favazza and Conterio (1989) in which 250 people who engaged in self-injury responded to a questionnaire regarding the methods they use. The results indicate that the following methods were employed: cutting (72%), burning (35%), self-hitting (30%), interference with wound healing (22%), hair pulling (10%), and bone breaking (8%). A more recent study on CSI investigating the methods employed by adolescents shows similar results with a few slight variations. The adolescents investigated reported the following methods of self-injury: cutting (82%), body carving (64%), head banging

(65%), picking at scabs (62%), scratching (50%), burning (59%), self-hitting (59%), and self-piercing (53%) (Walsh & Frost, 2005).

It is also not uncommon for those who self-injure to employ more than one method. The majority of individuals report using multiple methods (Favazza, 1996; Walsh, 2006). A recent study of college students indicate that 70% of those that reported engaging in self-injury used multiple methods to do so (Whitlock, Eckenrode et al., 2006). However, a sample of high school students indicates that only 23% reported using multiple methods to self-injure (Muehlenkamp & Gutierrez, 2004). Research also suggests that self-injurers are ritualistic in their methods to self-injure and their methods may change over time (Walsh, 2006).

Functions and Contextual Features of Self-Injury

It is difficult to determine a clear picture of the functions of SI because of inconsistencies in the functions studied and the different populations (clinical/nonclinical). In an attempt to aggregate the research findings, Klonsky (2007) conducted a meta analysis of 18 studies and identified seven functions of self-injury that evidenced repeated empirical support. The seven functions include affect-regulation, anti-dissociation, anti-suicide, interpersonal boundaries, interpersonal-influence, self-punishment, and sensation-seeking. Klonsky (2007) notes there were other functions investigated in the literature; however, the seven just mentioned were repeatedly confirmed. In addition, the affect-regulation function was the only function present across all 18 studies examined. Integration of the findings across studies on affect-regulation suggest that acute negative affect is present prior to self-injury and decreased negative affect and relief are present following self-injury. Strong support was also

evident for the self-punishment theory. Functions receiving modest support include the anti-dissociation, interpersonal-influence, sensation-seeking, anti-suicide, and interpersonal boundaries theories. Regardless of the sample studied (women vs. men, clinical vs. non-clinical, adult vs. adolescent, outpatient vs. inpatient), the general findings regarding the seven functions remained consistent.

Researchers have also examined the contextual factors surrounding self-injurious episodes. Nock and Prinstein's (2005) study of adolescent psychiatric inpatients indicates that most of the individuals thought about the behavior for a few minutes or less before performing the behavior and reported not using alcohol or drugs during self-injurious episodes. In addition, the participants reported experiencing little or no pain while engaging in the behavior.

Also strongly linked with the functions and contextual factors associated with SI, several risk factors have been identified. Risk factors include a history of physical and/or sexual abuse (Favazza & Rosenthal, 1993; Turrell & Armsworth, 2000), family violence (Conterio & Lader, 1998), and posttraumatic stress disorder (Favazza & Rosenthal, 1993). However, caution must be taken in generalizing these results to CSI because most of the evidence is derived from clinical populations exhibiting SI.

Associated Features

For years, SI was associated primarily with women due to higher prevalence rates in women over men across several studies (Simeon & Hollander, 2001; Zila & Kiselica, 2001); however, women are more likely to seek professional help and support than are men (Whitlock, Powers et al., 2006), thus skewing the past prevalence rates. Furthermore, other studies indicate equal prevalence rates among men and women

(Klonsky et al., 2003; Yates et al., 2008) and/or higher rates among men than previously reported (Lieberman & Poland, 2008). In regard to sexual orientation, Whitlock, Eckenrode et al. (2006) indicate a higher prevalence of bisexuality or questioning sexual orientation among those who self-injure than in the general population. However, equivalent prevalent rates were found for homosexual and heterosexual orientations among those who self-injure and the general population.

Yates et al. (2008) examined the prevalence of self-injury in two large-scale samples of adolescents from the West (n = 1,036) and East (n = 245) coasts of the United States. Results indicate higher prevalence rates than those previously noted in the literature, with a rate of 37% in the West Coast sample and a rate of 26% in the East Coast sample. Results also indicate a higher rate of SI among minorities, particularly among the Black ethnicity, than rates previously documented in other literature. In the West Coast sample, students endorsing Black or Other ethnic identities held higher prevalence rates of self-injury than students endorsing White, Hispanic, Asian, and multi-racial ethnic identities (Yates et al., 2008). Most previous studies indicated higher rates of self-injury among Caucasians than other ethnic groups (Klonsky & Muehlenkamp, 2007; Laye-Gindhu & Schonert-Reichl, 2005; Ross & Heath, 2002). Yates et al. depicts a growing trend of SI across various ethnicities. Yates et al. (2008) also indicate equivalent prevalence rates for women and men, much unlike previous studies supporting higher prevalence rates for women than for men. Yates et al. (2008) depicts a growing trend of SI among men as well.

Research on SI also indicates that a higher percentage of people who self-injure exhibit comorbid clinical diagnoses, including substance abuse disorders, eating

disorders, Borderline Personality Disorder, Posttraumatic Stress Disorder, Dissociative Disorder, Antisocial Personality Disorder, and impulse control disorders such as Trichotillomania than found for the general population (Lieberman & Poland, 2008, Simeon & Hollander, 2001; Walsh, 2006). Depression is also noted to be more frequent in those who self-injure than in the general population (Ross & Heath, 2002). In addition, research suggests that self-injurers commonly detail higher percentages of childhood physical and/or sexual abuse than those noted in the general population (Lieberman & Poland, 2008). For example, Whitlock, Eckenrode et al. (2006) indicate that 53% of college students who reported a history of self-injury also reported a history of physical, sexual, and/or emotional abuse. Of those participants reporting both a history of self-injury and abuse, those that engaged in self-injury on more than one occasion were more likely to reveal a history of abuse involving all three types of abuse. CSI, the focus of the present study, typically begins early in adolescence, increases during the 20's, and then gradually declines (Walsh, 2006). Walsh (2006) also discovered a correlation between CSI and several risk taking behaviors, including walking in high-speed traffic, hitchhiking, and having unprotected sex with strangers.

In addition, adolescents who self-injure typically hide their self-injury due to the shame associated with the behavior (Lieberman & Poland, 2008) and, thus, tend to avoid revealing this information to others and engaging in professional help-seeking measures (Whitlock, Eckenrode et al., 2006). The shame and secretive nature associated with CSI leads adolescents who self-injure to a sense of feeling marginalized from their peers (Whitlock, Powers et al., 2006). Those who self-injure are more likely to hide their scars and lie about their behaviors for fear of social rejection. Furthermore, these feelings of

shame that self-injurers experience may lead to more generalized feelings of shame over time, thus perpetuating the cycle of SI (Levenkron, 2006).

Self-injury has also been targeted as a possible peer contagion. Prinstein and Wang (2005) indicate that adolescents' perceptions of their peers' deviant and health risk behaviors (i.e., illegal behavior, use of drugs, aggression, sexual risk behavior, binging, suicidality) are a strong predictor of their own behavior, regardless of the finding that their perceptions are often either over- or under-estimations of their peers' behaviors. This finding suggests that adolescents may choose to engage in behaviors such as self-injury in order to earn affiliation within a social group. This finding also suggests that those that already engage in self-injury may choose to select others that engage in similar behavior for social interaction, which may further exacerbate their self-injury behaviors.

Self-Injury in the College Population

While numerous studies have been conducted on SI in the adolescent population due to the heavy prevalence of these behaviors during adolescence, fewer studies have been geared toward the college population. This is surprising given that traditional college-aged students (i.e., 18 to 22 years) fall within the highest risk category for CSI according to previous research (White, Trepal-Wollenzier, & Nolan, 2002).

Whitlock, Eckenrode et al. (2006) explored the scope and nature of SI as well as help-seeking endeavors in a sample of college students from two Northeastern universities and established a prevalence rate of 17% (n = 2875). In addition, three-fourths of those reporting SI stated they had engaged in SI on two or more occasions. Consistent with previous research on SI, the sample indicated a higher prevalence of female SI than male SI; however, this finding related only to repeated SI incidents and

not to single SI incidents. Bisexuality and questioning sexual orientation was more frequently associated with both single and repeated SI incidents. Also consistent with previous research findings, a history of abuse was significantly correlated with SI. In addition, the mean age of onset of SI was middle adolescence and those aged 24 or older were slightly less likely to report SI than the younger age brackets. One in five respondents indicated that they had injured themselves more severely than anticipated or severely enough to warrant medical attention, while very few actually sought medical help (Whitlock, Eckenrode et al., 2006). This tendency to avoid help-seeking reinforces previous suggestions that people who engage in SI often experience shame in regard to their behavior and, therefore, do not reveal the behavior (Whitlock, Powers et al., 2006).

Self-Injury and Adolescent Culture

Given the experience of isolation and secrecy associated with self-injurious behavior, interaction strategies that can ensure anonymity may be sought by those who self-injure. One such modality is that of electronic media. It is suggested that more than 80% of American adolescents use the Internet, with nearly half logging on daily (Lenhart, Madden, & Hitlin, 2005). On the Internet, there is a rise in the number of websites devoted to the topic of SI. Whitlock, Powers et al. (2006) found over 400 documented self-injury focused message boards. One year later in a similar study, Whitlock, Lader, and Conterio (2007) documented well over 500 websites dedicated to SI. In addition, studies indicate that using keywords such as self-injury, self-mutilation, self-inflicted violence, as well as others results in millions of blog communities, individually posted videos, websites with message boards, and other social networks (Whitlock et al., 2007). It is therefore apparent that SI is becoming a prominent topic on the Internet and self-

injurers are logging onto Internet sites devoted to SI to post blogs and interact on message boards and group sites with others that engage in self-injury (Murray & Fox, 2006; Whitlock et al., 2007; Whitlock, Powers et al., 2006).

Self-injurers are using the Internet and are visiting sites devoted to SI. Internet communication provides special advantages for shy, socially anxious, or marginalized youth (McKenna, Green, & Gleason, 2002; Whitlock, Powers et al., 2006). Those who self-injure are one such marginalized group. Marginalization results from people, or groups of people, being excluded by others in a society or social domain. For marginalized individuals, or those with stigmatized identities, the tendency is to conceal their identity at all costs for fear of shame or embarrassment, and, therefore, these possible consequences keep them from seeking out similar others (McKenna & Bargh, 2000). Communication via the Internet may allow those who self-injure the opportunity to express themselves in a safe and anonymous environment with those who share their feeling of marginalization (McKenna & Bargh, 2000; Whitlock, Powers et al., 2006).

With this increase in websites and social networking sites dedicated to SI, it is a logical conclusion that SI is becoming a more well known topic to non self-injurers as well, considering a 93% Internet usage rate among teens (Lenhart, Madden, Macgill, & Smith, 2007). In addition, more than half of American teens ages 12 to 17 use an online social networking site, such as MySpace or Facebook. Of these teens, 48% report logging onto social networking sites daily or more often; 26% report logging on once a day; and 22% report logging on several times a day (Lenhart & Madden, 2007). With the rise of sites dedicated to SI and the use of the Internet constantly increasing among adolescents for social purposes and/or to search for information on topics that may not be

readily discussed face-to-face with others, it is logical that non self-injurers are coming into contact with information regarding SI via the Internet.

Peer Perceptions of Self-Injury

While it seems apparent that adolescents are coming into contact with information regarding SI, the nature and extent of knowledge about SI and adolescent perceptions of the behavior are yet to be determined. During adolescence, development takes place within the context of peer social networks and relationships. Developmental tasks of adolescence include establishing meaningful relationships, finding acceptance and belonging in social groups, and establishing interpersonal intimacy (Baumeister & Leary, 1995). Therefore, peer acceptance and understanding are crucial needs that adolescents and young adults desire to fulfill. Since SI is a behavior that is generally viewed as unacceptable by society, it is important to know if this view is shared by adolescents.

Boeckmann (2008) conducted a survey of members of online self-injury groups that indirectly provides some information about peer perceptions of self-injury. Members of online self-injury groups (n = 64) report having more face-to-face than online friends with whom they communicate on a regular basis; however, they report having more online friends than face-to-face friends with whom they talk about self-injury. Participants also noted their perceptions of their face-to-face and online friends' primary reactions to learning about their self-injurious behaviors and thoughts concerning the impact of their self-injurious behaviors on their life functioning. Respondents indicate that face-to-face and online friends have contrasting reactions and thoughts concerning their self-injurious behavior. Face-to-face friends, who were reported less likely to engage in self-injurious behavior, are perceived as less supportive. Participants also

perceive that their face-to-face friends think their self-injurious behavior has a high, negative impact on their life functioning and that their online friends primarily think their self-injurious behavior has no impact on their life functioning. A majority of the participants also report that they agree or strongly agree that their online friends would be more accepting and supportive of their self-injurious behaviors than the people they know in person.

Boeckmann's (2008) study provides some guidance for understanding peer perceptions and indicates differences in peers' behavior based on whether the peer also engages in the self-injury. Face-to-face friends are described as different from online friends who are more likely to also engage in self-injury. It appears that face-to-face peers are not very supportive or understanding of the behavior. Although it is important to ascertain the thoughts those who self-injure have regarding how others view them, this information is not definitive without seeking similar information directly from peers of those who self-injure. Despite the source of the perceptions, this finding leads to a variety of questions: Do peers have an accurate knowledge of SI? Are peers accepting of the behavior, or do they reject those who self-injure? If peers discover that a friend self-injures, is their relationship with that person impacted positively or negatively?

The previous questions are important since studies have indicated peer influence and peer responses to self-injury to be crucial factors in adolescents' self-injury. Data have indicated that deviant peers or interpersonal conflicts with peers appear to be a provoking factor in adolescent self-injury (Walsh, 2006). Furthermore, peers' influence may negatively affect adolescents' ability to regulate their emotions effectively, one of the primary functions of adolescent self-injury (Suyemoto, 1998).

While peer acceptance is crucial for healthy social development, it appears that adolescent self-injurers are isolated from their peers (Walsh, 2006) and, therefore, their social development is limited. Self-injurers are described as a stigmatized group (Adler & Adler, 2005). Stigmas may be transferred to other people who do not personally possess the stigma, but are merely associated with those that do (Goffman, 1963). In this way, peers may opt to distance themselves from those that possess stigmas in order to avoid what Goffman (1963) termed 'stigma by association'. Taking into consideration the stigma associated with SI, one could hypothesize that peers either reject, or simply avoid, self-injurers in order to avoid stigma by association (Adler & Adler, 2005).

Knowledge tends to influence people's beliefs and behaviors regarding various topics. It is typical to avoid or fear the unknown. It is unknown to what degree peers are exposed to the topic of SI or whether peers are aware of others that engage in the behavior. Additionally, it is unknown whether the topic of SI is broached in conversation between adolescent and college-aged peers or remains a taboo topic in casual conversation. The level of accurate knowledge peers have regarding SI and how their level of knowledge interacts with their perceptions of the behavior has not been established. Furthermore, research has not ventured to determine the dynamics that occur between peers who self-injure and those who do not engage in the behavior. Given the importance of peer acceptance and the potential for stigmatization and alienation, as well as the detrimental influence peers can have on those who self-injure, it is highly important to identify peers' knowledge, experience, and perceptions of those who self-injure.

Professional Responses and Knowledge

While little is known of adolescents' knowledge and perceptions of self-injurious behavior, some information can be obtained from studies of the knowledge of professionals who work with individuals who self-injure and individuals who self-injure. Walsh (2006) suggests that SI often provokes strong, and primarily negative, reactions from those who do not engage in the behavior. He reasons that these reactions are a result of SI going against typical societal values, and, thus, SI is considered a deviant act. It is difficult for many individuals even to talk about SI, and, likewise, many fail to understand why anyone would choose to purposefully injure oneself. Gamble, Pearlman, Lucca, and Allen (1994) surveyed professionals' responses to SI and indicate that 117 mental health professionals identify self-injury as the most distressing issue or behavior encountered in their practice (as cited in White Kress, 2003). White Kress (2003) responds to this problem by stating that knowledge of SI increases professionals' abilities to manage patients who self-injure.

However, many professionals who interact with youth who self-injure evidence a high degree of inaccuracy in their knowledge of self-injury (Beld, 2007; Boeckmann, 2008; Butts, 2008; Jeffery & Warm, 2002). After reviewing literature on SI, Jeffery and Warm (2002) developed a survey consisting of 10 accurate statements and 10 myths about SI, as seen in Table 1.

Table 1

Facts and Myths about Self-Injury

Accurate Statements about SI
SI is a form of communication.
SI provides a way of staying in control.
SI provides distraction from thinking.
SI can obtain feelings of euphoria.
SI is a release for anger.
SI expresses emotional pain.
SI is a coping strategy.
SI helps a person maintain a sense of identity.
SI provides escape from depression.
SI helps deal with problems.
Myths about self-injury
SI is a sign of madness.
People who self-injure will “grow out of it” eventually.
SI is a manipulative act.
SI 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.
SI is a failed suicide attempt.
SI is attention seeking.

Table 1 (cont.) *Facts and Myths about Self-Injury*

	People who self-injure should be kept in psychiatric hospitals.
	Everybody who self-injures suffers from Munchausen's Disease (self-inflicted injuries calculated to produce specific symptoms that will lead to medical hospital admissions).

Note. Adapted from "A study of service providers' understanding of self-harm," by D. Jeffery and A. Warm, 2002, *Journal of Mental Health, 11*, p. 299.

Jeffery and Warm (2002) used the myths and facts to develop a measure that asks respondents to indicate their degree of agreement with the items on a scale from strongly disagree to strongly agree. Responses are given a score of 1 to 4 based on the accuracy of the rating. The measure yields scores from 20 to 100 with higher scores indicative of higher accuracy of knowledge. The level of knowledge of health and mental health professionals (Jeffery & Warm, 2002), self-injurers (Boeckmann, 2008; Jeffery & Warm, 2002), school psychologists (Beld, 2007), and teachers (Butts, 2008) have been identified across various samples. Across these samples, the mean scores of understanding of SI range from 67.36 to 80.18 suggesting that all groups studied endorse at least some of the myths outlined in the survey. Table 2 below contains each of the groups studied with their corresponding mean scores of SI knowledge on the measure.

Table 2

Self-Injury Knowledge Scores

Group	Mean	Standard Deviation
Psychiatrists[a]	69.78	8.76

Table 2 (cont.) *Self-Injury Knowledge Scores*

Psychology Workers[a]	79.37	6.55
Medical Group[a]	71.00	5.98
Social Community Workers[a]	77.16	8.71
Self-Injurers[a]	79.81	6.46
Self-Injurers[b]	80.18	6.94
School Psychologists[c]	79.11	6.27
Teachers[d]	68.83	6.23

[a]From "A study of service providers' understanding of self-harm," by D. Jeffery and A. Warm, 2002, *Journal of Mental Health, 11,* p. 299. [b]From "Self-injury knowledge and peer perceptions among members of internet self-injury groups," by E. Boeckmann, 2008, Unpublished Educational Specialist Project, Western Kentucky University, Bowling Green. [c]From "Self-injury in the schools: A survey of school psychologists," by A. Beld, 2007, Unpublished Educational Specialist Project, Western Kentucky University, Bowling Green. [d]From "Self-injury in the schools: A survey of educators," by J. Butts, 2008, Unpublished Educational Specialist Project, Western Kentucky University, Bowling Green.

Mean group differences in level of knowledge of SI are evident within groups that have some interaction and expectations to serve those that SI. Psychologists' and social/community workers' level of knowledge is greater than that of psychiatrists and medical workers. Additionally, psychologists, social/community workers, and school psychologists exhibit roughly equivalent levels of knowledge regarding SI. Teachers

appear to be the least knowledgeable on SI. Although in some groups the level of knowledge is good, the response pattern indicates some problems even in high performing groups that could lead to inappropriate behavior or practices when working with youth who self-injure. While research has taken an appropriate step in assessing the knowledge and reactions of professionals who come into contact with those who self-injure, the knowledge and reactions of the population within direct vicinity of those who self-injure is still unknown. No known research to date has focused on the peers of those who self-injure. Evidence from other groups suggests they may not have accurate knowledge regarding SI.

Beld (2007), Butts (2008), and Boeckmann (2008) also looked at the individual items in the measure to identify those that posed the most problems or evidenced the most problematic understanding. For instance, Beld (2007) found that 44.4% of school psychologists state they are unsure if people who self-injure had been sexually abused (myth), 57.1% disagree or are unsure if self-injuring helps people deal with their problems (fact), 55.6% agree or are unsure if SI is a manipulative act (myth), and 81% agree or are unsure if SI is an attention seeking behavior (myth).

In that knowledge does influence behavior, it would be important to ascertain the level of peer knowledge of SI and determine if there are inaccuracies in understanding that may negatively impact peer acceptance.

The Present Study

Self-injury prevalence rates have continued to increase over the last several years, with a growth rate estimated at 150% over the past 20-year period (Walsh, 2006). Researchers have documented these increasing prevalence rates in SI across a variety of

settings, including not only clinical populations such as inpatient psychiatric facilities, but also in non clinical settings such as middle schools, high schools, colleges, and the military (Briere & Gil, 1998; Favazza, 1992; Klonsky et al., 2003; Muehlenkamp & Gutierrez, 2004; Muehlenkamp et al., 2005; Whitlock, Eckenrode et al., 2006). Despite growing numbers of self-injurers, SI continues to be a taboo topic in society, going against common cultural values, and frequently invoking strong reactions in those that do not engage in the behavior (Walsh, 2006). There is a lack of understanding regarding SI as evidenced by many professionals in contact with those that SI still endorsing common myths and misconceptions of SI (Beld, 2007; Butts, 2008; Jeffery & Warm, 2002). While research has focused on the knowledge of several professional groups, research has not ventured into the area of peer knowledge. Peer knowledge is an important topic to research due to the heavy emphasis on peers and socialization during adolescence. In addition, self-injurers appear to be a marginalized group in society due to the stigma associated with the behavior. Are peers of self-injurers rejecting others who self-injure or are they accepting of the behavior? Are relationships between peers and self-injurers impacted, negatively or positively, once knowledge of the SI is disclosed? These questions cannot be ignored considering the increase in numbers of adolescent and college-aged self-injurers. There is a need to find out what is happening within the social context of peers and self-injurers. This research seeks to determine peer knowledge of SI as well as peer perceptions and reactions. The primary intent of this investigation is to gain insight into peer knowledge of SI, gain descriptive information regarding peers' perceptions of and experiences with others who SI, and determine whether personal experience with self-injurers affects peers' level of knowledge.

It is hypothesized that peers will hold a high level of knowledge when compared to the knowledge of the professional groups previously investigated. In addition, peers who evidence experience with individuals who SI will have greater knowledge. The basis for this prediction is threefold. First, peers share more of a common culture than do adolescents and young adults with professionals. Second, popular media (i.e., internet, movies) is widely accessible and frequently used by peers and self-injury is a visible topic in this media. Third, increasing numbers of SI would predict peers to have increasing opportunity to interact personally with someone who self-injures. In addition, the proposed study will provide a descriptive analysis of peers' experiences with those who self-injure, their reactions to those who self-injure, and their perceptions of SI.

Methods

Description of Respondents

The sample consists of 495 students aged 18 to 46 enrolled in undergraduate psychology courses at a south central Kentucky university. Students received class credit for participation in the form of either extra credit or course research credit. Of this sample, 68 (13.74%) participants responded that they currently engage in self-injury or have engaged in self-injury in the past. Due to the survey's focus on peers' perceptions of SI within the current study as well as the difference in response patterns between those with a history of SI and those with no history of SI, these participants were excluded from this sample. Thus, survey responses of the remaining 427 participants comprise the sample for this analysis. The majority of the respondents are Caucasian (88.6%), female (65.5%), and in their freshman year of college (60%). They indicate their ethnicity as African American (6.3%), Hispanic (2.2%), Asian (0.7%), Native American (0.2%), and other (1.9%; Biracial or Middle Eastern). Regarding education level, 16.3% were college sophomores, 8.5% were college juniors, and 14.6% were college seniors. The mean age4 of the sample is 20.47. The modal age is 18 years (40.5%). Regarding sexual orientation, 91.5% of respondents indicated they are heterosexual, 1.9% questioning their sexuality, 1.5% gay, 1.2% lesbian, and 1.2% bisexual.

The current sample of participants is comparable to the overall student demographics at the university in regard to gender and ethnicity in that the majority of students are Caucasian (83.6%) and female (59.6%). Other ethnicities for the university break down as African American (9.1%), Non-Resident Alien (2.9%), Hispanic (1.3%), Asian (1%), or American Indian/Alaskan (0.3%). However, in regard to education level,

the study sample consists of a larger percentage of freshmen than that of the current student body at the university (60% versus 30%). The remaining university students indicated their education level as college sophomore (20%), college junior (18%), college senior (25%), or other (8%). In addition, the current sample is comparable to the psychology department student demographics in that the majority of students are Caucasian (84.5%) and female (71.8%). The remaining students enrolled in the psychology department indicate their ethnicity as African American (8.7%) or other (3.8%) (WKU Fact Book, 2008).

Instrument

The survey instrument development is based upon a two-part process consisting of focus groups and survey design and review.

Focus Group Data

The survey was developed based upon focus group information and expert review. Focus group information regarding peer knowledge of SI was gathered from two groups consisting of four and six participants respectively. Participants were undergraduate students participating in psychology courses at a south central Kentucky university. Participants elected to participate for extra credit in their course or as a course research requirement. Participants earning course research requirement had the opportunity to sign up for any of various research studies currently in the data collection stage. Thus, research requirement participants self-selected to participate in the current study.

The focus groups were established for three primary reasons: 1) determine vernacular language/terminology used by the population in question, 2) exclude any

superfluous information not needed for the survey, and 3) determine level of contact/experience with peers who self-injure. The discussion of the focus groups was centered on their knowledge and perception of self-injury gleaned from responses to open-ended questions (see Appendix A).

Focus group participants signed informed consent forms for participation (see Appendix B). Participants were educated on specific ground rules of the focus groups. The ground rules state that participants not disclose last names and/or other identifying information (i.e., place of residence, unique personally identifying features, well-known recent events concerning discussed person) regarding individuals they know who self-injure, that only one person should talk at any one time, and that all participants remain respectful of one another's comments, opinions, or personal experiences.

A discussion then proceeded with the researcher asking open-ended questions (see Appendix A), to which further follow-up questions were asked when necessary while another researcher recorded data on chart paper to track conversation content. The focus groups lasted approximately 60 minutes in length. At the completion of the focus group, participants were given a debriefing statement (see Appendix C).

Insights gathered via focus groups guided the formulation of the survey concerning peers' knowledge, experience, and perceptions of SI. First, the focus groups demonstrated that the peer group is a surveyable group concerning the topic of SI. Second, focus groups revealed that participants presented both accurate and inaccurate knowledge concerning SI, thus strengthening the importance of assessing peer knowledge of the topic. Third, no novel terms and/or language concerning SI were revealed through the focus group discussions. Fourth, focus groups revealed that 90% of participants have

been in contact with at least one person that self-injurers, further demonstrating peers' ability to answer questions concerning their knowledge, experience, and perceptions on SI, as well as strengthening the need for more research on the area of peers of self-injurers. Each of these insights provided a foundation for the domains contained in the peer perceptions survey.

Survey Content

The peer perceptions survey consists of 54 items (five demographic items and five background items for those that personally self-injure) that assess four separate domains. The first domain (questions 12 to 21), peer knowledge, contains Jeffery and Warm's (2002) twenty items that assess respondents' level of SI knowledge by having them respond to accurate and inaccurate perceptions of SI. Jeffery and Warm assessed their survey for face validity during development and a factor analysis confirmed content validity and supported the distinctions between the accurate and inaccurate perceptions of SI. Reliability of this SI knowledge measure is adequate, evidencing Cronbach's alpha coefficient of .75 and split-half reliability of .84 (Jeffery & Warm, 2002). Reliability data from Beld (2007) and Butts (2008) also support that this knowledge measure is reliable with Cronbach's alpha coefficient of .69 and .71, respectively. An additional 9 items assess the current knowledge of peers as well as the source(s) of their knowledge. The second domain (questions 22 to 42), explores experience with SI, and contains 21 items that assess the extent and outcomes of experiences peers have engaged in with those who self-injure. The third domain (questions 43 to 54), peer perceptions, contains 12 items that assess peers' perceptions of SI (see Appendix D).

Content and editorial reviews of the preliminary survey were obtained by three graduate students and two undergraduate students at Western Kentucky University. Reviewers were given a list of questions to consider concerning each item contained on the survey (see Appendix E). Reviewers were instructed to note any problems with clarity in question formats, vocabulary, or directions. Reviewers were also instructed to denote any problems in answering the survey items due to lack of a particular response choice. Expert reviews of the survey were obtained by three licensed psychologists and one doctoral social psychologist. Reviews suggested only minor editorial changes and one content suggestion that led to inclusion of two questions concerning risky behaviors deemed appropriate to the survey.

Procedure

Participants are solicited via psychology courses for which they receive extra credit or study participation credit to meet course research requirement. Additional participants are obtained from campus organizations in which they receive volunteer credit. Participants respond to the survey either by signing up via the Psychology Department's Study Board system or via dissemination of the survey URL. All participants interested in the study are allowed to participate. A disclaimer at the beginning of the survey cautions individuals who self-injure about the possible discomfort or triggers that may result from completing the survey. In addition, a helpline, a URL/website, and a phone number to the campus counseling center at the south central Kentucky university is provided at the top of each page of the survey. Once individuals elect to participate in the survey, they are first directed to a screen displaying the informed consent form (see Appendix F). Once participants agree to the terms listed

on the permission form, they are directed to a screen that details the purpose of the study and gives them the option of continuing into the website and filling out the survey, or declining to fill out the survey without repercussions. Once the survey was completed and submitted, participants are directed to a screen displaying the debriefing statement (see Appendix G). The Western Kentucky University Human Subjects Review Board approved all of the procedures (see Appendix H).

Results

Descriptives for Experience with Others who Self-Injure

The survey contains 21 questions that seek to gauge the level and quality of experience peers have with others who self-injure. The majority of respondents (56.4%) indicate they know, or have known, at least one person who self-injures. However, a large percentage (43.3%) of respondents report not knowing anyone who self-injures. Figure 1 depicts the breakdown of responses.

Of those respondents who indicate they know, or have known, someone who self-injures, the majority (53.8%) say one to two of the people they know are close friends (someone they interact with on a regular basis), while 44% say none of the people they know who self-injure are close friends and 2.2% say three to five of the people they know are close friends. Of those respondents that know someone who self-injures, the majority (82%) indicate that no one within their current social group (those people they interact with on a periodic basis rather than on a regular basis) has self-injured within the past year, while 10.3% indicate one to two people have and 1.9% indicate three to five people have. Of those respondents who indicate knowing someone who self-injures, 60.4% say they have spoken with the individual about their self-injury; however, the majority (52.6%) of respondents say they have not spoken with someone else about the individuals' self-injury.

The following descriptives are based on the 228 respondents that indicated they know, or have known, someone who self-injures. In addition, respondents are asked to answer the remaining questions based on the person they know best who self-injures if they know more than one person.

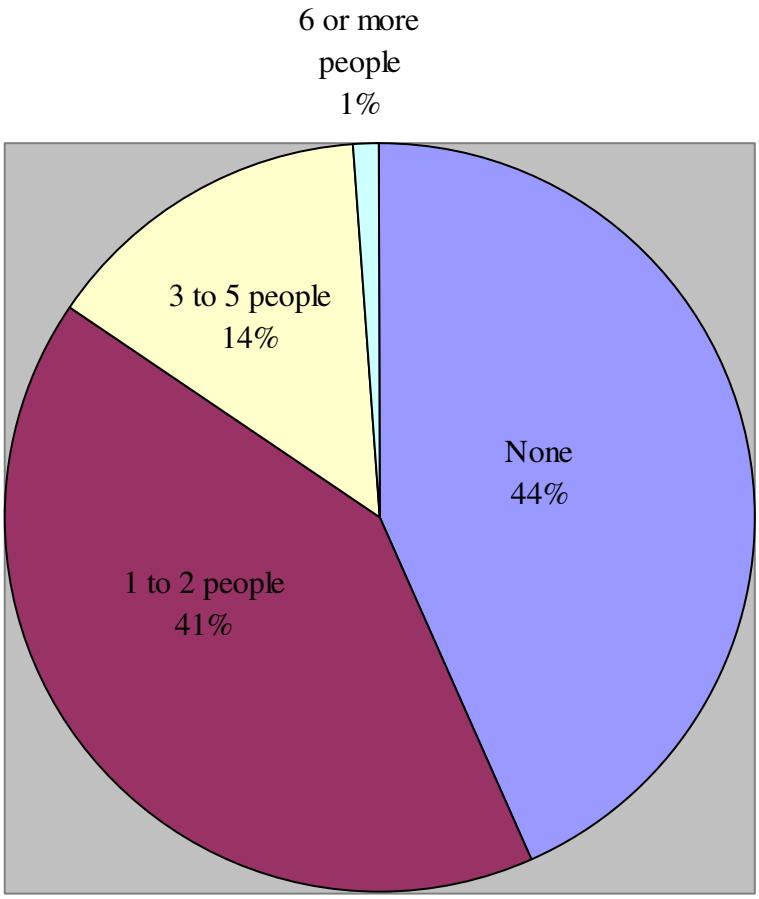

Figure 1. Number of individuals peers indicate they know, or have known, who self-injure.

A majority of the respondents indicate the individual they know is female (77.5%) and is someone they knew prior to college (83.8%). In response to the question of how they know the person self-injures the largest percentage of respondents (45.3%) state the person told them. Other responses to how they know the person self-injures include noticing scars (22.4%), being told by someone else (19.4%), catching the person in the act (7.2%), or a combination of these responses (7.2%). Of those respondents that indicate the person they know told them about the self-injury, 59.7% say the person they know initiated the conversation; however, 25.8% of respondents initiated the conversation themselves, and 14.5% of respondents say another person initiated the conversation.

A majority (74.6%) of respondents state their relationship with the person they know did not change due to their knowledge of the behavior. For those who indicate a change in the relationship, the largest percentage (48.4%) of respondents say the change was initiated by both themselves and their friend as opposed to themselves (29.4%) or their friend (22.2%) individually. The majority of those indicating no change in the relationship report a variety of reasons for why they think their relationship did not change (see Figure 2). The most frequently reported reason is they talked with the person about the behavior (25.9%).

Additionally, participants were asked to designate their agreement with a list of statements in reference to their relationship with the person they know after discovering that he/she self-injures (see Table 3).

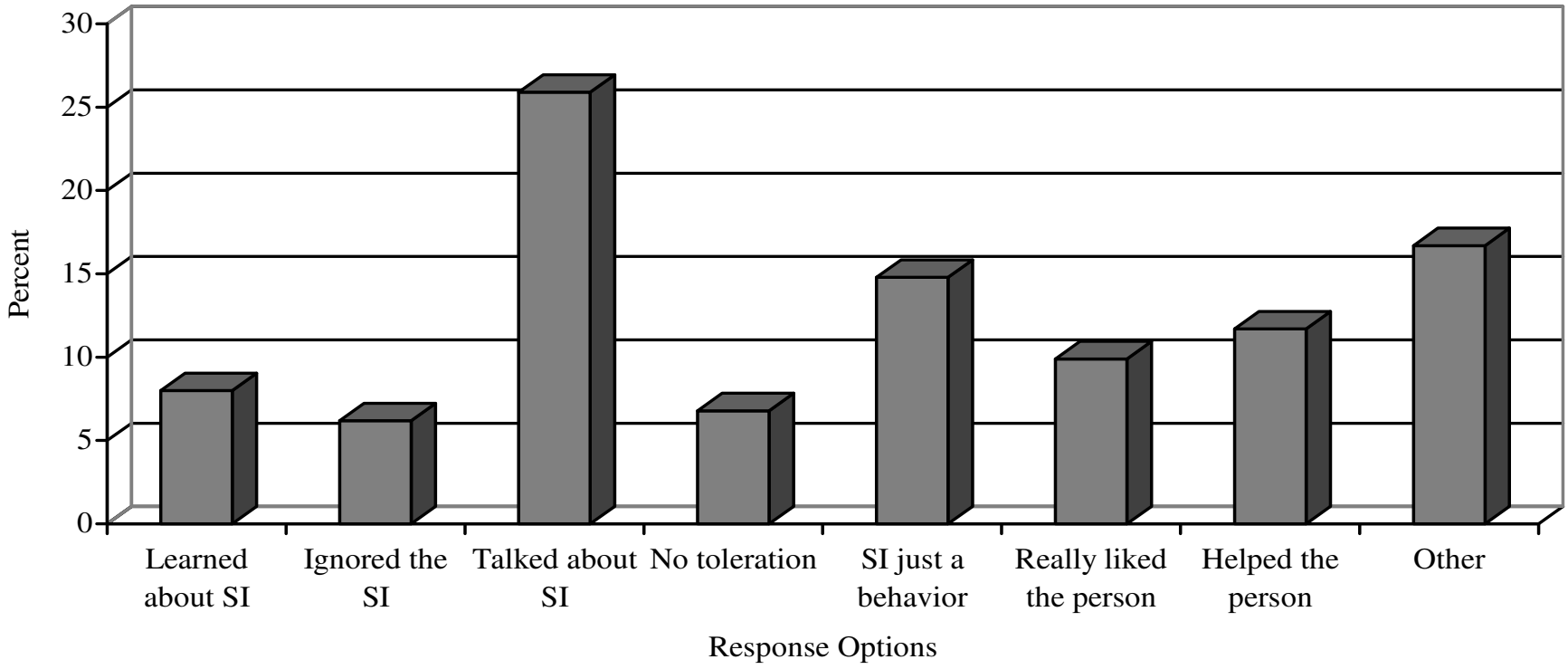

Figure 2. Reasons peers give for having no change in their relationship with someone who self-injures after discovering the behavior.

Table 3

Peer Responses to Learning about Another's Self-Injury

Statement	SD	D	U	A	SA
I think less of the person.	36.50	**40.60**	10.20	11.70	1.00
I do less with the person.	29.40	**42.60**	12.20	13.70	2.00
I pity the person.	18.80	**31.50**	22.80	25.40	1.50
I support the person.	13.20	16.20	20.80	**38.60**	11.20
I feel closer to the person.	8.60	**31.00**	28.90	27.40	4.10
We're very likeminded.	25.90	**31.00**	24.90	17.80	0.50
We share the same interest.	17.80	24.90	17.80	**37.10**	2.50
I've tried to learn more about SI.	11.20	**37.60**	15.70	34.50	1.00
I've gained more tolerance for the behavior.	23.40	**41.60**	20.80	13.20	1.00
His/her behavior really bothers me.	3.60	13.20	16.20	**50.30**	16.80
I've tried to get him/her to stop the behavior.	2.60	21.90	12.20	**45.90**	17.30
I feel the person is in need of professional help.	5.60	23.40	24.40	**33.00**	13.70

Table 3 (cont.) *Peer Responses to Learning about Another's Self-Injury*

I have aided the person in getting professional help.	13.80	**39.50**	20.50	20.00	6.20

Note. Peers indicate agreement by designating Strongly Disagree (SD), Disagree (D), Unsure (U), Agree (A), or Strongly Agree (SA). The highest percentage response for each item is marked in bold.

The majority (54.2%) of respondents state that their knowledge of the self-injury performed by the individual they know did not impact the behavior of the individual. For those that noted a change in behavior on the part of the individual they know, they were asked to indicate their agreement with statements concerning possible impacts on the individuals' behavior (see Table 4).

Table 4

Behavioral Impacts of Learning about Peer's Self-Injury

Statements	SD	D	U	A	SA
He/she stopped doing things with me.	20.00	**51.10**	16.70	11.10	1.10
He/she avoided talking to me.	22.00	**51.60**	15.40	9.90	1.10
He/she reached out to me for understanding/help.	3.30	24.20	18.70	**49.50**	4.40
He/she seemed to be relieved that I knew.	4.40	14.30	25.30	**53.80**	2.20
He/she pretended that I didn't know.	13.20	**49.50**	18.70	18.70	0.00
To my knowledge, his/her behavior did not change.	16.50	**39.60**	28.60	15.40	0.00

Table 4 (cont.) *Behavioral Impacts of Learning about Peer's Self-Injury*

Note. Peers indicate agreement with statements concerning behavioral impacts with Strongly Disagree (SD), Disagree (D), Unsure (U), Agree (A), or Strongly Agree (SA). The highest percentage response for each item is marked in bold.

The largest group (37.7%) of respondents indicates they have known the individual who self-injures for less than a year and 38.2% feel it is "somewhat distressing" that their friend self-injures. In regard to the functioning of the individual they know who self-injures, a majority (54.9%) of respondents think the individual they know generally does fine (i.e., goes to classes, makes good grades, has a good social life) and others are unable to notice any difference.

Experience Establishment

Hypothesis One and Two required the creation of a variable that quantifies the sample's experience or interaction with peers who SI. Experience for the sample is based on item 25 of the survey that asks respondents to indicate the number of individuals within their current social group that have self-injured within the last year. Response choices for the question were collapsed into two groups (don't know anyone, know someone) based on the distribution of responses that indicate very few participants know more than two individuals (2%, n = 8) who self-injure. One group consists of those individuals indicating they "don't know anyone" (n = 350) and is renamed the "no experience" group. All other response choices (1-2 individuals, 3-5 individuals, 6-10 individuals, 10+ individuals) comprise the "experience" group (n = 52).

The two groups are similar to one another in regard to gender and ethnicity in that both groups are predominantly Caucasian and female. However, the experience group is

younger on average (*M* = 19.6) than the no experience group (*M* = 21.72). Also, the experience group contains more respondents in their freshman year of college than the no experience group (67.1% versus 51.1%) and fewer respondents in their senior year of college than the no experience group (8.9% versus 23%). Complete demographic information for the experience and no experience groups is contained in Table 5.

Table 5

Demographic Information of the Experience and No Experience Groups

Demographic	Experience	No Experience
Gender		
Female	67.70	64.20
Male	32.30	35.80
Ethnicity		
African American	4.80	8.00
Asian	1.30	0.00
Caucasian	90.80	85.60
Hispanic	1.80	2.90
Native American	0.00	0.60
Education Level		
College Freshman	67.10	51.10
College Sophomore	14.20	18.40
College Junior	9.80	7.50
College Senior	8.90	23.00
Sexual Orientation		
Gay	1.80	1.20
Lesbian	0.90	1.20
Heterosexual	94.60	93.50
Bisexual	0.90	1.80
Questioning	1.80	2.40

Note. Frequencies reported as percentages.

Self-Injury Knowledge Measure

In order to test hypothesis one and hypothesis two, the self-injury knowledge measure used by Jeffery and Warm (2002), Beld (2007), Butts (2008), and Boeckmann (2008) serves as the foundation for calculating peer knowledge. Only those participants (n=385) who completed all 20 knowledge items on the measure were used in the analysis of knowledge mean scores. The reverse worded items on the measure were recoded for consistent scaling across the items on the five-point Likert scale (1=Strongly Disagree, 2=Disagree, 3=Unsure, 4=Agree, 5=Strongly Agree). Scores were totaled to create knowledge scores ranging from 20 to 100. The knowledge measure evidenced good item reliability with a Cronbach's Coefficient alpha of .77. The mean score for the sample is 61.05 with a range from 36 to 86 and a standard deviation of 8.38.

Hypothesis One

Hypothesis one predicts peers to hold higher knowledge of SI than professional groups previously investigated. A series of one-sample *t*-tests compare the mean score of the peer sample to the mean scores obtained by Jeffery and Warm (2002), Beld (2007), Butts (2008), and Boeckmann (2008). Given the two separate samples of self-injurers examined by Jeffery and Warm (2002) and Boeckmann (2008), a weighted mean was calculated for the comparison (M=80.12, n=95). A Bonferoni correction established a significance level of p=.007 for the comparisons. The current sample is divided into two groups consisting of those who have experience with others who self-injure (n = 51) versus those who have no experience with others who self-injure (n = 328). All of the mean score comparisons yielded significant mean differences, with both groups in the current sample exhibiting significantly lower levels of knowledge. In addition, the effect

sizes are large. Therefore, hypothesis one is not supported. Table 6 depicts the *t*-test comparisons between those respondents indicating having no experience with someone who self-injures and each professional group (i.e., psychiatrists, psychology workers, medical group, social community workers, self-injurers, school psychologists, and teachers). Table 7 depicts the *t*-test comparisons between those respondents indicating having experience with someone who self-injures and each professional group.

Table 6

T tests comparing mean group scores on Knowledge Measure for No Experience Group

Group	No Experience (n = 328)
Peers	
Mean	60.41
t	-3.62*
d	1.56
Psychiatrists[a] (n = 9)	
Mean	69.78
t	-20.68*
d	3.22
Psychology Workers[a] (n = 19)	
Mean	79.37
t	-41.83*
d	6.98
Medical Group[a] (n = 27)	
Mean	71.00
t	-23.37*
d	3.98
Social Community Workers[a] (n = 25)	
Mean	77.16
t	-39.96*
d	5.76

Table 6 (cont.) *T tests comparing mean group scores on Knowledge Measure for No Experience Group*

Self-Injurers[a,b] (n = 95)	
Weighted Mean	80.12
t	-43.49*
d	----
School Psychologists[c] (n = 63)	
Mean	79.11
t	-41.26*
d	6.95
Teachers[d] (n = 224)	
Mean	68.83
t	-18.58*
d	3.13

Note. Dashes indicate the effect size cannot be formulated.

[a]From "A study of service providers' understanding of self-harm," by D. Jeffery and A. Warm, 2002, *Journal of Mental Health, 11,* p. 299. [b]From "Self-injury knowledge and peer perceptions among members of internet self-injury groups," by E. Boeckmann, 2008, Unpublished Educational Specialist Project, Western Kentucky University, Bowling Green. [c]From "Self-injury in the schools: A survey of school psychologists," by A. Beld, 2007, Unpublished Educational Specialist Project, Western Kentucky University, Bowling Green. [d]From "Self-injury in the schools: A survey of educators," by J. Butts, 2008, Unpublished Educational Specialist Project, Western Kentucky University, Bowling Green.

*p<.000

Table 7

T tests comparing mean group scores on Knowledge Measure for Experience Group

Group	Experience (n = 51)
Peers	
Mean	64.90
t	-3.62*
d	1.56
Psychiatrists[a] (n = 9)	
Mean	69.78
t	-4.12*
d	1.66
Psychology Workers[a] (n = 19)	
Mean	79.37
t	-12.22*
d	5.28
Medical Group[a] (n = 27)	
Mean	71.00
t	-5.15*
d	2.27
Social Community Workers[a] (n = 25)	
Mean	77.16
t	-10.36*
d	4.19
Self-Injurers[a,b] (n = 95)	
Weighted Mean	80.12
t	-12.86*
d	
School Psychologists[c] (n = 63)	
Mean	79.11
t	-12.00*
d	5.24
Teachers[d] (n = 224)	
Mean	68.83
t	-3.32*
d	1.45

Table 7 (cont.) *T tests comparing mean group scores on Knowledge Measure for Experience Group*

[a]From "A study of service providers' understanding of self-harm," by D. Jeffery and A. Warm, 2002, *Journal of Mental Health, 11,* p. 299. [b]From "Self-injury knowledge and peer perceptions among members of internet self-injury groups," by E. Boeckmann, 2008, Unpublished Educational Specialist Project, Western Kentucky University, Bowling Green. [c]From "Self-injury in the schools: A survey of school psychologists," by A. Beld, 2007, Unpublished Educational Specialist Project, Western Kentucky University, Bowling Green. [d]From "Self-injury in the schools: A survey of educators," by J. Butts, 2008, Unpublished Educational Specialist Project, Western Kentucky University, Bowling Green.

*p<.000

In addition, analysis of the response patterns for the sample provides a basis for categorizing the sample responses for each item as evidencing good, poor, or problematic understandings of SI. Beld's (2007) criterion level of a 70% response rate serves to differentiate good, poor, or problematic understanding in that the level screens for SI knowledge, but is not overly strict. Under this criterion level, an item receives a classification of 'good understanding' when response rating values for agree and strongly agree are evident in 70% or more of the sample. A classification of 'poor understanding' of an item is given when response ratings of strongly disagree, disagree, and unsure are equal to or greater than 70%. A classification of 'problematic understanding' is for items that do not reach the 70% criterion level as either good or poor. On the 20-item knowledge measure, responses from the current sample indicate two accurate

understandings, nine inaccurate understandings, and nine problematic understandings (see Table 8).

Table 8

Peer Understanding of SI Knowledge

Question	*M*	Inaccurate	Accurate
Good Understanding of SI[a]			
SI is a "woman's problem"	4.35	11.60	86.90
SI expresses emotional pain	3.73	26.70	72.40
Poor Understanding of SI[b]			
SI is a sign of madness/mental illness	2.48	81.00	17.20
SI can provide a way of staying in control	2.29	79.90	18.70
SI is a manipulative act	2.71	83.00	15.80
SI can obtain feelings of euphoria	3.07	71.60	27.40
SI can provide help dealing with problems	2.42	79.90	18.40
SI is attention-seeking	2.49	83.30	15.50
SI helps maintain a sense of identity	2.51	82.80	12.90
SI provides escape from depression	2.49	78.70	19.90
People who SI need psychiatric hospitalization	2.56	79.00	19.70
Problematic Understanding of SI[c]			
SI is a form of communication	2.81	59.40	39.60
SI provides distraction from thinking	3.19	46.60	51.90
People who SI will "grow out of it" eventually	3.68	41.20	57.50

Table 8 (cont.) *Peer Understanding of SI Knowledge*

SI can provide a release for anger	3.29	43.90	54.60
People who self-injure have been sexually abused	3.35	60.50	38.40
SI is a failed suicide attempt	3.67	35.00	63.90
SI is a coping strategy	3.21	47.10	51.70
Everybody who self-injures suffers from Munchausen's Syndrome	3.60	47.80	51.00

Note. Accurate and inaccurate frequencies (shown as percentages) 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 of 4 and 5) and Inaccurate (responses of 1, 2, and 3).

[a]Good Understanding of SI = Accurate frequencies ≥ 70%. [b]Poor Understanding of SI = Inaccurate frequencies ≥ 70%. [c]Problematic Understanding of SI = Inaccurate or Accurate frequencies < 70%.

Descriptive Information for Peer Knowledge of Self-Injury

Additional questions examine this group of college students' knowledge of SI in regard to suicide, prevalence rates, age of onset, media, risky behaviors, source(s) for knowledge, and evidence of SI within social and educational populations. When given the statement "SI is a form of suicide," the majority of the sample (51.5%) either agrees or is unsure; however, 36.8% of the sample disagrees with the statement. A majority of the sample (67.6%) either is unsure or disagrees that "SI is typically followed by suicide." Following the statement, "suicide and SI are not related," 34.1% are unsure and 33.2% disagree. In regard to the percentage of college-aged individuals they think

engage in SI, 23.2% state “6-10”, 22.4% state “1-5”, and 21.5% state “11-15”. In questioning SI and age of onset, the majority of the respondents (58.5%) answers that most people begin to engage in SI between 13 to 15 years old.

In regard to SI and the media, 41% of the respondents agree that SI is evident in the popular media, 43.4% indicate that Internet forums specifically about SI are easily accessible, and 41.7% agree that the media has become a mechanism for spreading information about SI. When asked whether SI can be contagious, or spread among members of a group, 39.5% of respondents believe it can.

In regard to SI within social and educational communities, when asked how they first became aware that SI is something their friends do, the majority of the sample (53.9%) responds they “saw [their] friends do it, either in person or online”. In reference to educational communities, 51.5% are unsure whether SI is evident at the university they attend. In response to the statement, “SI is evident in college populations across America”, 39.8% are not sure while 36.6% feel SI is evident. When asked whether SI was evident in the high school they attended, 39% state SI was evident, while 25.1% respond they are unsure. In response to SI being evident in high school populations across America, 43.2% of respondents feel it is and 34.9% are unsure.

Participants are asked to indicate how risky they find a series of behaviors to be, which include three forms of SI (cutting oneself, burning oneself, and hitting oneself), on a scale that ranges from extremely risky to not at all risky (see Table 9).

Table 9

Severity of Risk Ratings of High Risk Behaviors

Behavior	Extremely Risky	Very Risky	Risky	Not Very Risky	Not At All Risky
Drinking while driving	**74.80**	18.30	6.20	0.70	0.00
Having unprotected sex	**51.00**	29.60	18.50	1.00	0.00
Smoking	20.40	23.40	**42.90**	12.80	0.50
Doing drugs	**54.50**	26.50	16.80	2.20	0.00
Speeding	10.70	16.10	**50.90**	21.30	1.00
Cutting oneself	**51.40**	34.10	13.60	1.00	0.00
Getting drunk	12.10	13.30	**41.00**	28.60	4.90
Burning oneself	**48.00**	32.90	15.80	2.70	0.50
Cheating on an exam	12.60	17.80	**44.00**	22.70	3.00
Shoplifting	29.10	31.30	**34.70**	4.40	0.50
Lying	9.10	15.30	**43.80**	26.80	4.90
Skipping class	3.20	6.40	31.40	**44.00**	15.10
Hitting oneself	17.60	25.20	**39.60**	15.60	2.00

Note. Frequencies reported as percentages. Highest percentages marked in bold.

Participants are also asked to rate how often they engage in the same set of behaviors on a scale from never done to done often (see Table 10).

Table 10

Frequency of Engagement in High Risk Behaviors for Sample

Behavior	Never Done	Done Once Only	Done Occasionally	Done Often
Drinking while driving	**61.30**	19.50	17.20	2.00
Having unprotected sex	**41.40**	12.10	35.00	11.60
Smoking	**41.40**	13.30	26.10	19.20
Doing drugs	**63.50**	11.60	20.70	4.20
Speeding	8.20	3.70	**46.40**	41.60
Cutting oneself	**99.50**	0.20	0.20	0.00
Getting drunk	21.20	6.70	**47.40**	24.70
Burning oneself	**96.60**	2.50	1.00	0.00
Cheating on an exam	**44.80**	29.20	25.50	0.50
Shoplifting	**73.10**	22.00	4.90	0.00
Lying	5.40	10.60	**74.10**	9.90
Skipping class	9.90	15.10	**63.00**	12.10
Hitting oneself	**89.20**	6.40	4.20	0.20

Note. Frequencies reported as percentages. Highest percentages marked in bold.

When respondents are asked about how they have learned about SI, they respond by marking all sources that apply (see Figure 3). The most frequently reported source is television or other popular media (63.4%) such as news programs, World Wide Web, and books/magazines.

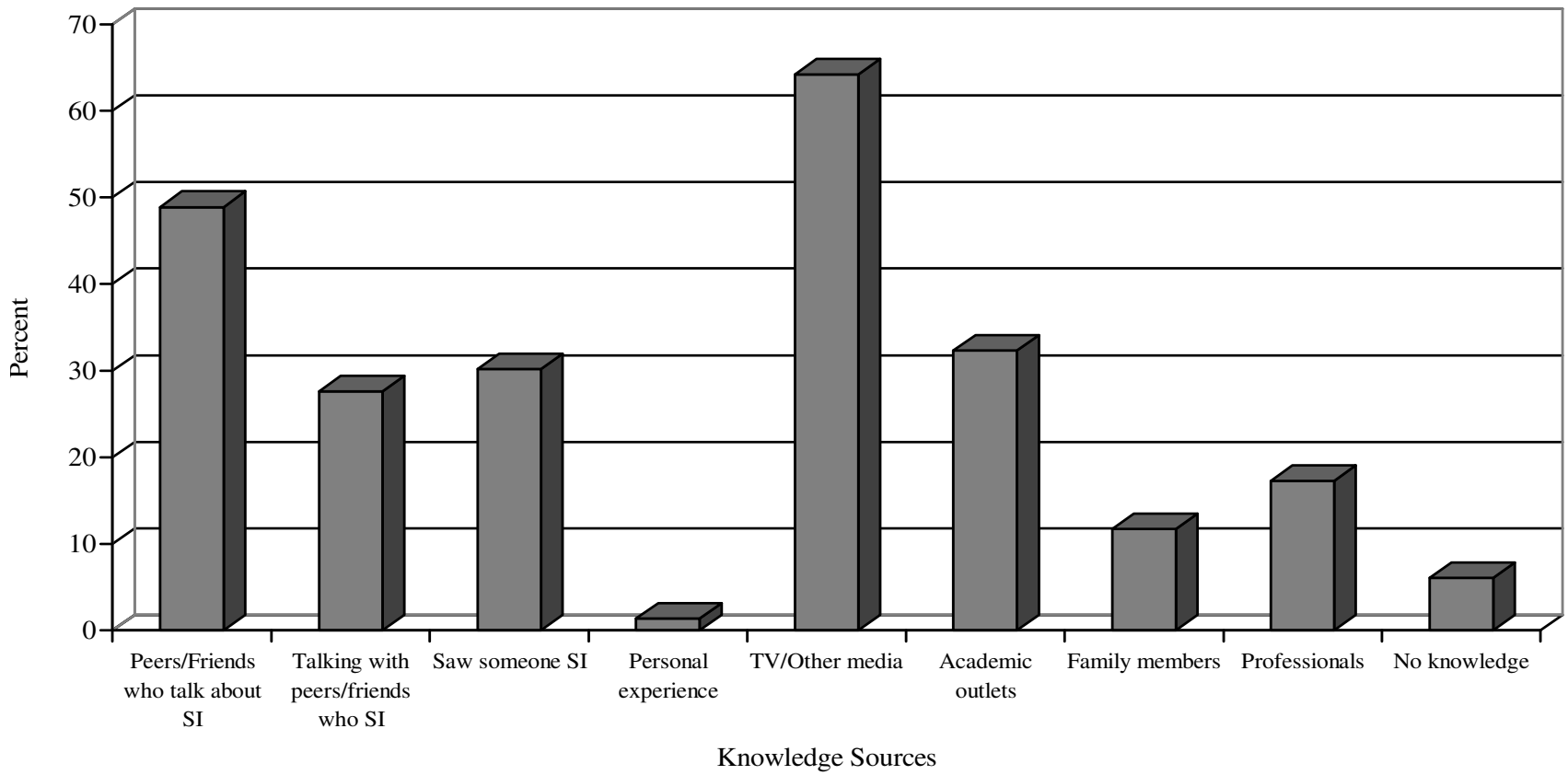

Figure 3. Sources of SI knowledge for college sample.

Hypothesis Two

Hypothesis two predicts that peers who have experience with others who self-injure will have higher levels of SI knowledge than peers who have no experience with others who self-injure. As indicated above, experience is defined as responses indicating knowing one or more individuals who self-injure. To evaluate this hypothesis, an independent samples *t*-test is used to compare the mean scores on Jeffery and Warm's (2002) twenty items of the two groups established through the experience item on the survey. The no experience group (n=328) has a mean score of 60.41 with a standard deviation of 8.21. The experience group (n=51) has a mean score of 64.90 with a standard deviation of 8.45. The *t*-test is significant, $t(377) = -3.62$, $p = .000$. In addition, the effect size is large ($d = 1.56$). Thus, hypothesis two is supported—individuals who have the 'experience' or personally know someone who engages in self-injury evidence a higher level of knowledge about SI than those who do not personally know someone who engages in self-injury.

Descriptive Data for Peer Perceptions of Self-Injury

The survey contains 12 questions that seek to gauge peer perceptions of SI. When asked whether they have ever spoken with anyone that does not engage in SI about SI, 52.7% say they have not while 41.2% say they have. For those that say they have, the largest group of respondents (43.3%) indicates the topic was broached in a classroom discussion and another 30% indicate the topic was discussed with a friend or family member of someone who self-injures. Of those that have spoken with someone that does not engage in SI about SI, 84.2% indicate the topic is not frequently talked about.

Participants are asked to indicate all thoughts and emotions they hold for self-injurious behavior (see Figure 4). The most frequently reported thought respondents hold for SI is confusion (54.9%).

Within the peer perception portion of the survey, participants respond to one open-ended question—what puzzles you about SI and/or what do you wish you knew about SI. A total of 285 of 495 respondents answered this question, and their responses are coded into five categories. Categories are derived from the combination of organization of sample responses into pre-selected categories (Associated Features, Why People Do It, How the Pain Helps, Helping Aspects, Don't Want to Know More, Other) by two clinical psychology graduate students and creation of categories based upon sample responses by two different clinical psychology graduate students. Based on reviewer suggestions, the first two categories are grouped into one larger category, Asking Why/Not Understanding the Behavior, due to the vast similarities between the responses contained in each category. Organization of responses into categories produced a 90% agreement rate. Six responses are coded into more than one category as the content reflects ideas from two separate categories. Overall, the most frequently reported category indicates that peers do not understand the behavior and wish to know why people engage in self-injury (73%). This category includes such responses as "how can someone purposefully hurt themselves" or "why would anyone choose to self-injure". Twenty-one percent of responses fit into the category of not wanting to know anything more about SI or being unsure of what else they wish they knew.

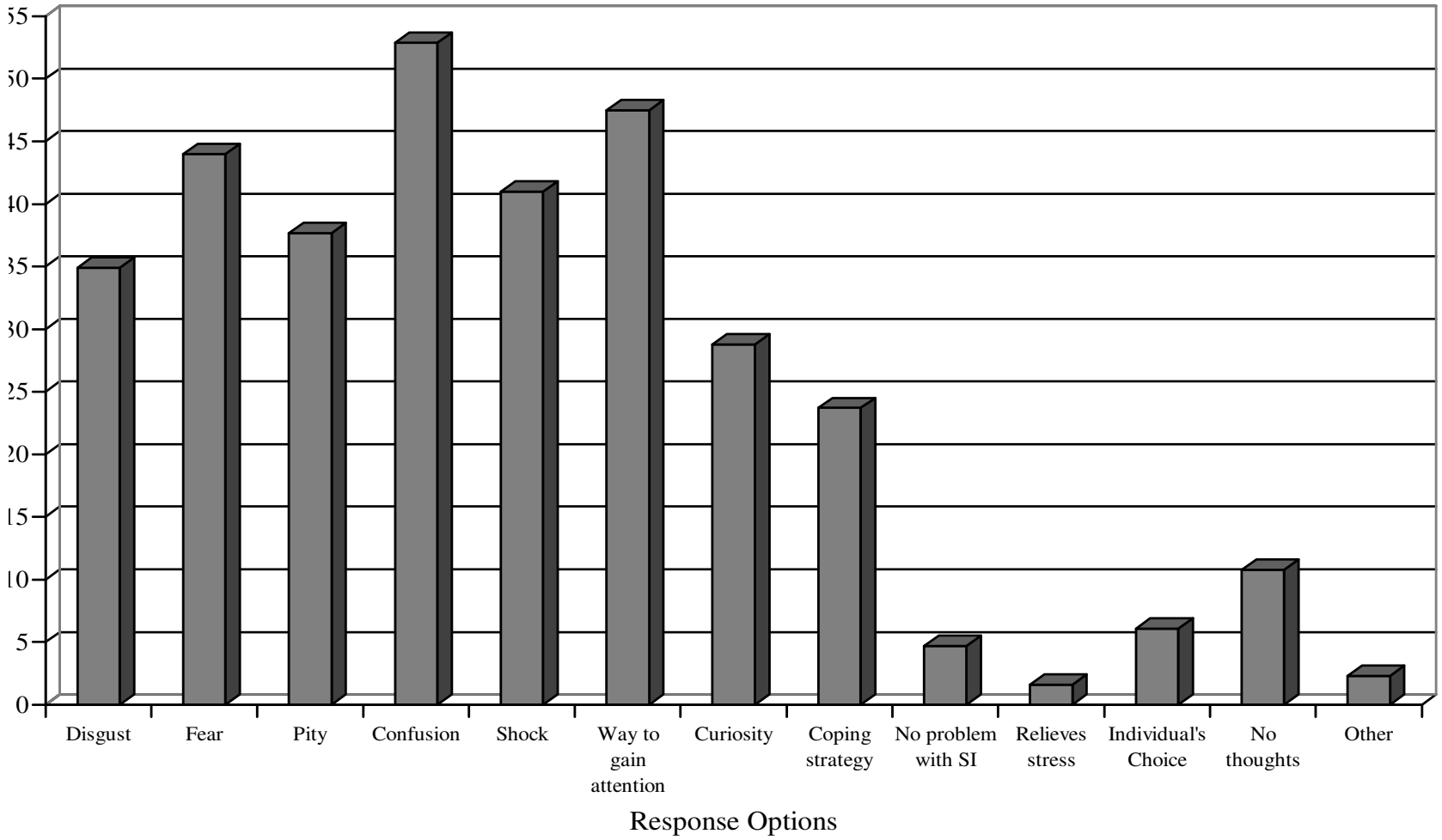

Figure 4. Thoughts and emotions sample indicates having about SI.

Nineteen percent of responses fit into the category of helping aspects of SI. Under this category, respondents indicate a desire to learn ways of helping others who self-injure and/or effective strategies in dealing with the behavior. Sixteen percent of the responses form the category of associated features. Under this category, responses indicate a desire to learn more generalized information on SI, such as prevalence rates, risk factors, potential causes, age of onset, and other associated SI knowledge. The remaining 21% of responses forms the 'other' category. This category is comprised of responses that do not fit into any of the other four categories and are not similar in theme. Sample responses from the 'other' category include "I wish I knew it didn't exist," "What's the difference between burning and cutting?", and "Why do they have to hide it? After all, they like to do it."

Participants were asked to indicate all reasons for why they think people who self-injure engage in the behavior (see Figure 5). The most frequently reported reason is "to cope with problems and/or emotions" (68.8%).

In response to whether respondents would maintain a relationship with a friend if they divulge they self-injure, 76.1% of the sample indicate they would. When asked if they think SI is something that people grow out of, the majority (69%) of respondents either disagree (35.6%) or are unsure (33.4%). Thirty-nine percent of respondents feel people who self-injure are in need of mental health services and 45.6% state they would encourage someone who self-injures to get help. When asked if SI is something that needs to be addressed in the college population, 47.8% of the sample feel it needs to be addressed, and 82.7% indicate there needs to be a better understanding of SI in the college population. Participants indicate the best methods for providing college

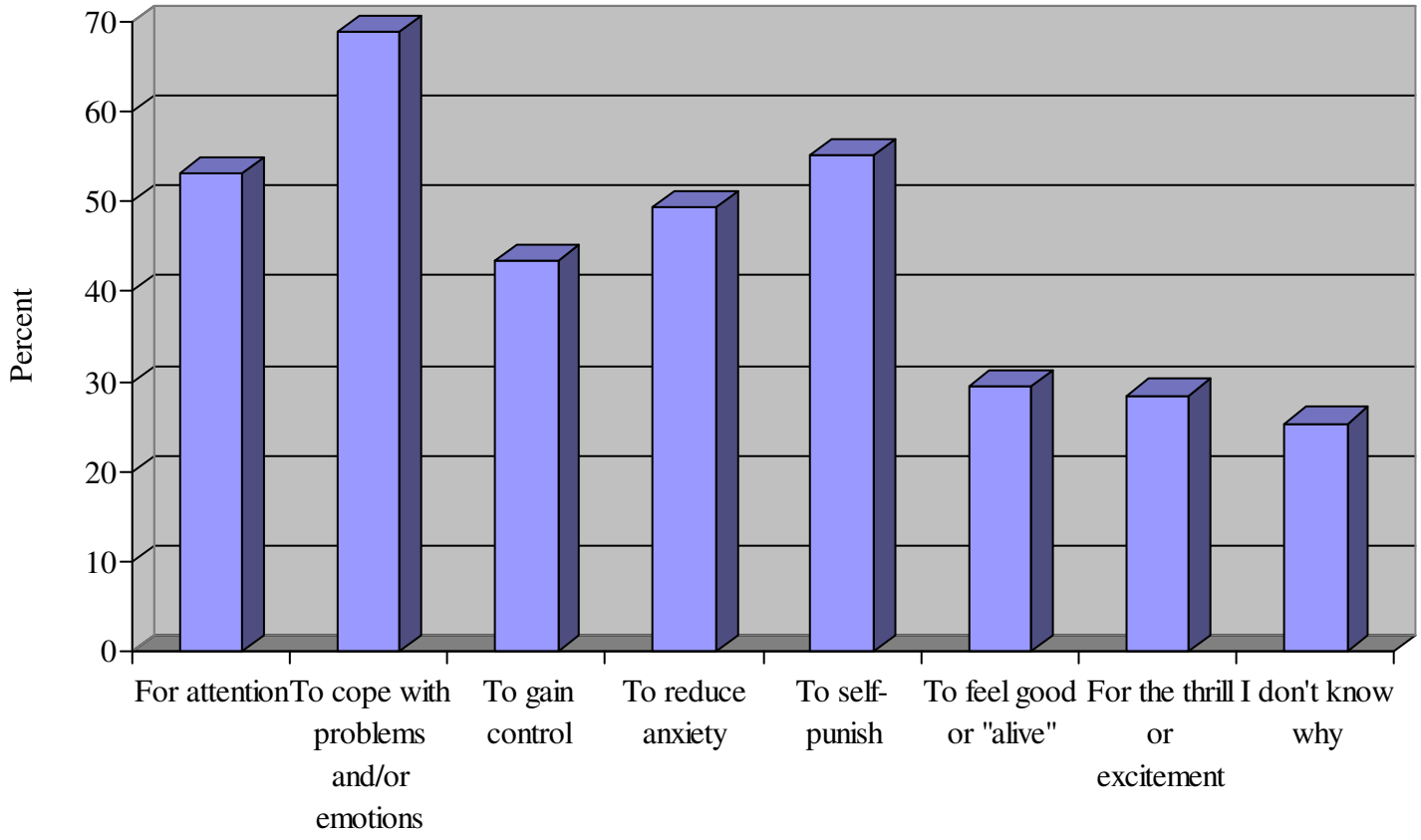

Figure 5. Reasons peers indicate for why people engage in SI.

populations with information about SI are peer counseling (58.3%), informational talks on the subject provided to various student groups (57.3%), posters with helpful resources (56.8%), and a campus self-injury telephone helpline (51.2%). The other two methods receive less support: a week-long awareness project devoted to SI on campus (30.7%) and information tables run by professionals who can help answer questions regarding SI (28.8%). Only 3.4% of participants respond that SI does not need to be addressed in the college population.

When asked what impact SI has on those who self-injure as a group, the largest group (37.8%) of respondents indicates they feel people who self-injure have some problems meeting the demands of everyday life, but their functioning is only slightly different from most people's functioning. The largest group (36.8%) of respondents indicates they are somewhat concerned about individuals their age who self-injure.

Discussion

The current study explores the knowledge of a sample of college students regarding SI as well as their experience with peers who self-injure. It also examines whether level of experience with SI impacts level of knowledge regarding SI among the sample. Lastly, descriptive information regarding peers' perceptions of those who self-injure provides some basis for understanding peer perceptions of SI.

Peer Experience with Others who Self-Injure

Several items describe the experience peers have with others who self-injure, a topic that has not been previously investigated in other studies.

Prevalence of peer experience with SI. The majority of respondents indicate they know, or have known, at least one person who self-injures. Of those respondents that know someone, the majority indicate one to two of the people they know are close friends. Within their current social group, however, approximately only 12% of respondents report knowing someone that has self-injured within the past year. Given the fact that over half the sample knows at least one person that self-injures, a baseline for peer knowledge is established. In addition, 13.74% of the sample engages, or has engaged, in SI at some point. This sample prevalence rate of those engaging in SI is only slightly lower than the 17% prevalence rate previously reported for a college population (Whitlock, Eckenrode et al., 2006). However, it is important to keep in mind that the current sample was solicited from a south central university primarily consisting of students from surrounding rural areas.

Peer relationships with others who self-injure. The majority of research indicates that SI is most prevalent in adolescent females (Briere & Gil, 1998; Simeon & Hollander,

2001; Zila & Kiselica, 2001). The people the respondents indicate knowing who self-injure follow in the same suit in that they are predominantly female and are people the respondents knew prior to college. The majority of respondents indicate knowing about the behavior for less than a year and have spoken with the person they know about their self-injury; however, they report not having spoken with anyone else about the individual's SI. The majority of respondents indicate their knowledge of the person's self-injurious behavior stems from the person telling them. Other sources include noticing scars, being told by someone else, and catching the person in the act. In addition, of those that indicate the person told them of their self-injurious behavior, the majority state the person they know initiated the conversation. Thus, for the majority, it appears the person who self-injures chose to disclose their behavior. This openness regarding the behavior is vastly different from the shame and secrecy typically associated with the behavior that keeps many who engage in SI from revealing the behavior to other peers and professionals (Lieberman & Poland, 2008).

Peer responses to those who self-injure. For those respondents that know someone who self-injures, the majority indicate their relationship with the person did not change upon learning of the behavior. The most frequently reported reason for having no change in the relationship is that they talked with the person about the behavior. Other frequently reported responses include believing SI is just a behavior, a desire to help the person, really liking the person, and learning more about SI. Upon discovering the self-injurious behavior, the majority of respondents do not think less of the person nor do they lessen the amount of time they spend with the person. In general, they are more likely to support the person. However, the majority of respondents also note that they have not

gained more tolerance for the behavior as they still are bothered by it. In addition, the majority feel the person is in need of professional help and has tried to get them to stop. Thus, it appears that the participants in Boeckmann's (2008) study are partially accurate in their perception of how their face-to-face friends would react to their self-injurious behavior. Boeckmann's (2008) participants report their face-to-face friends to not be as supportive or as understanding of the behavior as others who engage in the behavior. The current sample does not appear to completely understand the behavior, but states they are supportive of the people they know who self-injure. The majority of the sample also feels that it is somewhat distressing that the individual they know self-injures; however, they feel the person they know generally does fine in everyday life. Thus, the current sample of peers who have experience with others who self-injure appear to agree with Walsh's (2006) observation that individuals with CSI tend to meet the demands of daily life and lack a decrease in functioning typically associated with other forms of SI. This finding does not coincide with the perceptions of the participants in Boeckmann's (2008) study who believe their face-to-face friends would find their self-injurious behavior to have a high, negative impact on their functioning.

Behavioral changes of those who self-injure. The majority of respondents indicate their knowledge of the SI does not impact the behavior of the individual; however, others note two particular changes on the part of the individual. The majority of those that note changes indicate that the person they know reaches out to them for understanding and/or help and that the person seems relieved that they know.

Peer Knowledge

Additional items on the survey provide descriptive information regarding peer knowledge of SI.

Self-Injury and Suicide. The sample appears to be fairly knowledgeable concerning SI and suicidality. Much like research that states SI and suicide are distinct from one another due to their intended results (Simeon & Favazza, 2001; Whitlock & Knox, 2007), the majority of the respondents either disagrees or is unsure whether SI is a form of suicide and whether SI is typically followed by suicide. In comparison to a sample of teachers and school psychologists, the participants in this sample respond similarly to questions related to SI and suicide (Beld, 2007; Butts, 2008); therefore, the current sample of peers appear to be as knowledgeable as two groups of professionals concerning SI and suicide. Additionally, the majority of respondents are able to recognize that suicide and SI are, however, related in that those who self-injure report suicidal thoughts at some point (Favazza, 1996) and are at an increased risk of suicidal thoughts and/or attempts (Whitlock & Knox, 2007).

Self-Injury Prevalence. Respondents' estimate that most people begin to engage in SI between 13 to 15 years of age is equivalent to the consensus among current research that SI typically begins in mid to late adolescence (Briere & Gil, 1998). While current research estimates that 17% of college students have participated in SI (Whitlock, Eckenrode et al., 2006) the majority of respondents underestimate this prevalence rate, with the largest group estimating a 6 to 10 percent.

Thus, the respondents appear to be somewhat unaware of the prevalence rate of SI within the college population around them. This lack of awareness can be seen through

the majority of participants responding they are unsure whether SI is evident at the university they attend and/or in college populations across America. However, the majority of respondents indicate SI was evident in the high school they attended and feel it is evident in high schools across America. In regard to more personal awareness, when asked how they first became aware SI is something their friends do, the majority of respondents indicate they saw their friends do it, either in person or online. This is surprising given the shame and secretive nature typically associated with those who self-injure.

Self-Injury and the Media. Multiple studies document the increasing rates of SI within the media, particularly through the Internet (Murray & Fox, 2006; Whitlock et al., 2007; Whitlock, Powers et al., 2006). This increase in media exposure does not appear to go unnoticed by the majority of peers who indicate that SI is evident in the popular media, that Internet forums specifically focused on SI are easily accessible, and that the media has become a mechanism for spreading information about SI. In addition, the majority of respondents appears to agree with Prinstein and Wang's (2005) theory that SI is a possible peer contagion in that SI can be contagious, or spread among members of a group. Moreover, not only are respondents aware of the increased media exposure to SI, the largest source of knowledge regarding SI for this sample of college students is via the media, far surpassing multiple other avenues of knowledge including peers/friends, academic outlets, and professionals (see Figure 1).

Self-Injury as a Risky Behavior. Given the connection discovered in current research between CSI and several risk taking behaviors (Walsh, 2006), it is not surprising that respondents also closely associate these behaviors. Other risky behaviors

respondents rate as extremely risky include drinking while driving, having unprotected sex, and doing drugs. It is apparent that respondents feel SI is as serious and potentially harmful as other behaviors commonly deemed risky. In addition, respondents rate their involvement in each of the above named extremely risky behaviors as "never done," thus emphasizing their belief in the potential risk associated with the behaviors. This is surprising given that respondents also indicate those who self-injure have only slight impairments in daily life functioning.

Sources of Knowledge. While respondents mark several sources as being the source for their knowledge of SI, including peers/friends who talk about SI, academic outlets, seeing someone else self-injure, and talking with peers/friends who self-injure, the most frequently reported source is television or other popular media. Media includes such examples as news programs, the World Wide Web, and books or magazines. This is not surprising given the heavy increase of websites devoted to SI (Whitlock et al., 2007) coupled with the increasing rates of Internet usage (Lenhart et al., 2007) among teens and college-aged individuals. Added to this is the increasing prevalence of SI in movies, music, and television. College-aged peers are obviously very aware of this increased media prevalence as mentioned earlier. With media outlets undoubtedly targeting adolescent and college-aged consumers, it is easily conceivable that the media is the most heavily reported source for knowledge among this sample.

Hypothesis One

Hypothesis one predicts peers to have a higher level of knowledge of SI than health care professionals, school psychologists, and teachers. Hypothesis one is not supported as peers evidence a significantly lower mean knowledge score than that of all

the professional comparison groups. These findings are surprising given the increased presence of SI in the popular media, which is predominantly geared toward adolescent and college-aged individuals, as well as the increased prevalence rates of SI within the college population. However, health care professionals and school psychologists are more likely to have training geared toward SI or other related issues and to have greater opportunities to work in close contact with individuals who self-injure, thus allowing them the opportunity to acquire more knowledge. It is concerning that peers hold significantly lower levels of SI knowledge than educators, who are only somewhat knowledgeable about SI and who do not report high confidence in working with youth who self-injure (Butts, 2008).

On Jeffery and Warm's (2002) SI knowledge measure, respondents' scores indicate they are not very knowledgeable about SI as their mean knowledge scores are 60.41 and 64.90 for those without and those with experience, respectively. Analysis of the frequencies to knowledge measure items indicate 18 of the 20 items have inaccurate (nine items) or problematic (nine items) understanding of SI. For example, while Walsh (2006) indicates that engaging in SI does not assume one has a clinical disorder, the majority of respondents endorse the myth that SI is a sign of madness/mental illness. Additionally, Walsh (2006) also warns against assuming SI is a way to gain attention; however, the majority of respondents agree that "SI is attention-seeking." Respondents also disagree with several accurate statements regarding SI such as "SI can provide a way of staying in control" and "SI can provide help dealing with problems." These response patterns indicate the presence of a large number of inaccuracies in peers' knowledge of SI.

Hypothesis Two

Hypothesis two did receive support. It predicts that peers who have experience with others who self-injure will have higher levels of SI knowledge than peers who have no experience with others who self-injure. Hypothesis two is supported in that peers who report having friends within their current social group who self-injure evidence a greater mean knowledge score (64.90) than peers who report having no friends within their current social group who self-injure (60.41). This finding is not surprising given that peers who have experience with others who self-injure have more opportunities to engage in conversation with the friends they know about SI and to obtain more information on the behavior, thus increasing their knowledge of SI.

Peer Perceptions of Self-Injury

Additional items on the survey examine peer perceptions' of SI and include both peers who do and do not have experience with others who self-injure. Descriptive information is obtained through the items and cannot be compared to results from other studies since this is a topic not previously broached in an investigation.

Peers thoughts of SI. Walsh (2006) indicates self-injury is considered a taboo topic in today's society and it appears this remains true for the current sample. Despite the fact that the peers in this sample appear to be highly cognizant of the behavior, the majority of respondents indicate they have never spoken about SI with anyone that does not engage in SI. For those that have discussed SI, the majority state the conversation was broached in a classroom discussion and indicate the topic is not frequently talked about. Thus, it appears Walsh (2006) may be correct in stating that since SI goes against common societal values, many individuals find it difficult even to talk about SI.

In regard to the thoughts peers hold concerning SI, the most frequently reported thought is confusion. Other thoughts frequently reported include SI is a way to gain attention, fear, shock, pity, disgust, curiosity, and that SI is a coping strategy. Again, Walsh (2006) may be correct in suggesting that SI often provokes strong, primarily negative, reactions in those that do not engage in the behavior. Additionally, the one open-ended question on the survey that asks peers what puzzles them about SI and/or what they wish they knew about SI primarily evokes the response of not understanding SI and wishing to know why or how someone could injure themselves. Responses such as "how can someone purposefully hurt themselves" and "why would anyone choose to self-injure" are repeatedly mentioned. Thus, it appears confusion and a lack of understanding form the primary perception peers hold for those who self-injure.

When peers attempt to indicate reasons behind people engaging in SI, the majority of respondents state SI is a way for people to cope with problems and/or emotions, which is consistent with the findings of Klonsky (2007). Other reasons noted include self-punishment, attention-seeking, anxiety reduction, and gaining control which are also noted in the literature (Klonsky, 2007; Walsh, 2006).

In investigating answers to questions earlier presented, the majority of respondents state they would maintain a relationship with a friend if they divulged they self-injure; therefore, it appears that peers are not highly likely to reject those who engage in the behavior. The majority of peers also appear to understand that SI is not something that people grow out of, as commonly reported in studies (Walsh, 2006). The majority of the sample feel those who self-injure are in need of mental health services and would encourage someone they know who self-injures to seek help. Thus, while peers in this

sample appear to be supportive of others who engage in SI, they do not accept continuation of the behavior.

Along this line, the majority of the sample feels those who self-injure have some problems meeting the demands of everyday life and is somewhat concerned about individuals their age who self-injure. It is interesting to note that the current sample as a whole appears to hold a different perception concerning the daily functioning of those who self-injure than the subset of participants who report having experience with others that engage in the behavior. The subset of participants indicating experience with others who self-injure do not appear to notice any problems in daily functioning on the part of individuals who self-injure. This discrepancy could either suggest that peers who have experience with others who self-injure are not aware of the slight impairments that exist or peers without experience assume there must be impairments present with the behavior.

Self-Injury in the college population. The majority of the sample endorsed that the topic of SI needs to be addressed in the college population in order for everyone to gain a better understanding of the behavior. In addition, the data from the current sample support the need for a better understanding of SI within the college population. In making suggestions on how best to address the topic in college populations, the most frequently reported avenues are peer counseling, informational talks on SI provided to various student groups, posters with helpful resources on SI, and a campus SI telephone helpline.

Limitations

A limitation of the study lies in the participant demographics in that the respondents tend to be similar across gender, ethnicity, and education level. The respondents are predominantly Caucasian females in their freshman year of college. While the sample

demographics are similar to the demographics of the university and to the psychology program from which the sample is derived, and is therefore, representative of the university, the results cannot be generalized across other demographics of college students.

Another limitation of the study pertains to the possibility of respondents misunderstanding survey items due to the independent nature of the participation process. Since participants are able to complete the survey without the researcher's presence, the ability to seek clarification for items is eliminated. Thus, participants have the opportunity to perceive the items differently than they are intended.

An additional limitation of the study is that not all possible responses may be included for every item. While professionals reviewed the survey for clarity and editorial components, some items may have potentially limited participant responses.

Last, another limitation of the study is the possibility of a social desirability bias within participant responses to survey items. A social desirability bias may arise from participants electing to over report good behavior or under report poor behavior in order to be viewed more favorably through their responses. Thus, what participants report they will do or believe they will do may not coincide with how they actually behave in a given situation.

Practical Implications

One implication of the current study is that peers, as a group, do not have highly accurate knowledge of SI. As a group, college students hold many inaccurate understandings regarding SI and evidence feelings of confusion regarding the subject of

SI. Given the high prevalence of SI within the college population, data from the current survey supports the need for a better understanding of SI among the college population.

Another implication of the current study is that peer experience contained in the sample suggests that the majority of college peers do not reject others who engage in SI. Additionally, college peers who do not indicate knowing anyone who self-injures primarily respond that they would continue a relationship with a friend if he/she reveals self-injurious behavior. This suggests that the isolation experienced by those who self-injure may not necessarily be due to rejection on the part of their peers. However, results indicate that, while the majority of peers may remain supportive of individuals who self-injure, they do not accept continuation of the behavior and typically encourage the person to cease the behavior. It is also important to note that what individuals believe they will do and how they actually behave are not always consistent. In addition, the social desirability bias indicates that respondents may over report good behavior in order to be viewed favorably. Thus, interpretation of this espousal of support for peers who self-injure is problematic.

A third implication of the study is that the actual reported perceptions and experiences the current sample detail do not coincide with the perceived thoughts participants in Boeckmann's (2008) study indicate their face-to-face friends would have regarding their self-injurious behavior. Boeckmann's study focuses on the thoughts individuals who self-injure have regarding their non self-injuring friends' perceptions of their behavior. While participants in Boeckmann's study feel their face-to-face friends who do not engage in the behavior would not be highly supportive once discovering the self-injurious behavior, the current sample of non self-injuring individuals repeatedly

express they have, and would, provide support to those they know who self-injure. Additionally, while Boeckmann's participants hold the perception that their face-to-face friends who do not engage in SI would think their self-injurious behavior has a high negative impact on their daily functioning, the current sample of non self-injuring individuals indicates the behavior only makes a slight negative impact or no impact at all on functioning.

Last, despite results indicating peers are open to continuing relationships with those who self-injure, it appears that SI remains a taboo or not openly discussed topic. The majority of college peers have not discussed the topic of SI with others, and those that have, have done so rarely. The taboo nature of SI may contribute, in part, to why peers obtain most of their knowledge regarding SI through the popular media. This supports the need for increased awareness of SI through various campus activities and/or resources that will help provide more detailed and academically based information on SI than would perhaps be contained in the media.

Further Research

While this study provides information regarding college peers' knowledge of SI, a more demographically varied sample is needed to support the results. In addition, while this sample provides significant details regarding experience with others who self-injure, the percentage of individuals indicating having experience is low. Thus, replicating the study across various other samples would not only serve to support the findings, but could potentially expand upon the information gained.

In addition, future research is needed to compare the perceptions held concerning SI in those who have self-injured in the past versus those with no prior personal experience

engaging in the behavior. Since the participants in Boeckmann's (2008) study perceive those who have and have not engaged in the behavior to hold varying views of, and varying reactions to, their self-injurious behavior, comparing the actual reported perceptions of these two groups would more fully prove or discount the perceptions contained in Boeckmann's study.

Another area for future research is on the methods suggested for SI awareness on college campuses. It would be beneficial to study the effectiveness of putting into place the various methods suggested on increasing SI awareness contained in this study. Future research focused on determining which methods provide the most success in student participation and knowledge gained would provide evidence for the most effective means of addressing the confusion surrounding SI.

Overall, the data from this survey support that the college population does not hold accurate and substantive knowledge of self-injury. While it sheds light on the peer understandings and perceptions of those who self-injure, it suggests that significant attention is needed regarding accurate dispersal of information on the subject to the college population.

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Appendices

Appendix A
Focus Group Question

The following questions will be used during the discussion with the focus groups. Follow-up questions will be used to clarify and pinpoint further information as needed.

1. What do you think is considered self-injury?
2. How many people do you know who self-injure?
    a. Who do you know that self-injures?
    b. How well do you know them?
3. Who do you think self-injures?
4. What methods do you think people use to self-injure?
5. How often do you think the people you know self-injure?
6. When do you think people self-injure?
7. What do you think triggers people to self-injure?
8. What do you think motivates people to self-injure?
9. Where do you think people self-injure?
10. What are your reactions to those that self-injure?
    a. How do your friends react to those who self-injure?
11. How much of a problem do you think self-injury is?
12. How available do you think resources are for those that self-injure?
13. What kinds of self-injury groups do you think are on the Internet?
14. How effective do you think treatments used on those who self-injure are?
15. Where did you learn about information regarding self-injurious behavior

Appendix B
Focus Group Informed Consent

FOCUS GROUP INFORMED CONSENT DOCUMENT

Project Title: Peers' Perception of Self-Injurious Behavior

Investigators: Shakeria Davis, B.A. and Elizabeth Jones, Ph.D.
Department of Psychology, 745-4414

You are being asked to participate in a project conducted through Western Kentucky University investigating peers' knowledge and perceptions of adolescents who self-injure. ***Please read the following information carefully.*** It describes the purpose of the study, the procedure to be used, risks and benefits of your participation and what will happen to the information that is collected from you. If you agree to participate in this project, the University requires that you give your signed agreement to participate in this project.

The investigator will explain to you in detail the purpose of the project, the procedures to be used, and the potential benefits and possible risks of participation. 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 sign on the last page of this form in the presence of the person who explained the project to you. You should be given a copy of this form to keep.

1. **Nature and Purpose of the Project:** The nature of this study will be a group discussion focusing on peers who self-injure. The project is designed to examine the perceptions of those who do not self-injure, towards those who do.

2. **Explanation of Procedures:** Upon your consent, you will participate in a verbal discussion that will be audio taped; however, no names will be collected. You will be asked a series of questions regarding your knowledge, perceptions, and responses of peers who self-injure. The discussion will last approximately 60 to 90 minutes.

3. **Discomfort and Risks:** There are no known risks associated with participation. However, you need to be advised that the topic of self-injury is one that many find disturbing. You may feel free to discontinue if such occurs. If you personally engage in self-injurious behavior, your participation is not pertinent to the discussion group at this

time. Further, if you engage in self-injurious behavior, participating in the discussion could have unwanted consequences. Please see the researcher if this is the case.

4. **Benefits:** Upon completion of the discussion group, you will receive extra credit for your psychology course. There is no known information regarding peers' view of adolescents who self-injure.

5. **Confidentiality:** All information collected will be kept strictly confidential and will be accessible only to the project staff. In addition, all names will be kept separate from the audiotapes.

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 personally engage in self-injurious behavior, you will suffer no repercussions for not participating.

7. **Questions:** Can be directed to the researchers collecting data.

Please read the following statements carefully and initial on the provided lines to acknowledge that you have read and understood the following considerations and agreements.

Because of subject matter, I realize the discussion may be uncomfortable or disturbing, and that I may withdraw without penalty at any time if such occurs.
_____

I acknowledge that I do not engage in self-injury. I also realize that, if I do engage in self-injurious behaviors, that discussing these behaviors may have bad consequences. _____

I agree to be audiotaped. _____

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.

_____ _____

Signature of Participant Date

_____ _____

Witness Date

THE DATED APPROVAL ON THIS CONSENT FORM INDICATES THAT
THIS PROJECT HAS BEEN REVIEWED AND APPROVED BY
THE WESTERN KENTUCKY UNIVERSITY HUMAN SUBJECTS REVIEW BOARD
Sean Rubino, Compliance Manger
TELEPHONE: (270) 745-4652

Appendix C
Focus Group Debriefing Statement

Thank you for participating in this discussion group. This discussion group was designed to illicit peer group knowledge and understanding of self-injurious behavior in order to formulate items to be included on an online survey. If you would like a final copy of the research project, please contact Dr. Elizabeth Jones at (270) 745-4414, or at the Department of Psychology, Western Kentucky University, College Heights Boulevard, Bowling Green, KY 42101. The final copies will not be available until after May, 2009.

Appendix D
Survey

***Note, the following text will appear on each screen of the survey:**

If you feel the need for assistance, please visit www.selfinjury.com <http://www.selfinjury.com/> or call 800-DONTCUT (800-366-9066).

For local assistance with self-injury, you may contact WKU Counseling and Testing Center by calling 270-745-3159.

1. In accordance with WKU's policies, you must be 18 years of age or older to participate in this survey. Please select the option below that applies to you.
    a. Yes, I am 18 years of age or older and am therefore able to participate in this survey if I so choose.
    b. No, I am not 18 years of age or older, and therefore understand that I am not able to participate in this survey at this time.

2. You understand 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.
    a. I agree/I understand
    b. I decline

3. Age:_____

4. What is your race/ethnicity?
    a. African American
    b. Asian
    c. Caucasian
    d. Hispanic
    e. Native American
    f. Other:_____

5. Please indicate your gender:
    a. Male
    b. Female

6. Indicate your current education level:
    a. College Freshman (less than 25 completed course hours)
    b. College Sophomore (25-54 completed course hours)
    c. College Junior (55-88 completed course hours)
    d. College Senior (89 or more completed course hours)
    e. Graduate Student (currently enrolled in a graduate program)

7. Indicate your sexual orientation:
    a. Gay
    b. Lesbian
    c. Heterosexual
    d. Bisexual
    e. Questioning (A fixed sexual orientation is as of yet not clear or defined.)

<u>CAUTION:</u> If you engage in self-injury, this survey may create some discomfort or trigger self-injurious behavior. You may stop the survey at any time or visit the URL provided above to access online support.

8. Describe any connection you may have to self-injurious behavior.
    a. I have never self-injured.
    b. I have never self-injured, but have considered it.
    c. I currently engage in self-injury.
    d. I have self-injured in the past.

9. If you self-injured in the past, how many times did you engage in the behavior?
    a. I have never self-injured.
    b. I currently engage in self-injury; I have not stopped self-injuring.
    c. Once
    d. 2-4 times
    e. 5-10 times
    f. 11-20 times
    g. 21-30 times
    h. 30+ times

10. If you self-injured in the past, how long did you engage in the behavior?
    a. I have never self-injured.
    b. I continue to self-injure.
    c. I only tried it once.
    d. 2-3 days
    e. 1 week
    f. 2-3 weeks
    g. 1 month
    h. 2-3 months
    i. 4-6 months
    j. 7-11 months
    k. 1 year
    l. 1+ year

11. If you do, or did, engage in self-injury, how often do you, or did you, engage in the behavior? (Choose only one response and indicate how many times per day for the response chosen.)
    a. I have never self-injured.
    b. Daily (_____ times per day)
    c. Weekly (_____ times per day)
    d. Monthly (_____ times per day)
    e. Less than monthly (Explain:_____)

In this survey the term self-injury will be used. Self-mutilation, deliberate self-mutilation, cutting, self-harm, and deliberate self-harm are other terms used to identify this behavior. Based on your current knowledge of self-injury, please answer the following questions:

12. Please indicate to what extent you agree with the following statements:

	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
Self-injury is a form of communication.					
Self-injury is a sign of madness/mental illness.					
Self-injury can provide a way of staying in control.					
Self-injury can provide					

distraction from thinking.					
People who self-injure will “grow out of it” eventually.					
Self-injury is a manipulative act.					
Self-injury can obtain feelings of euphoria.					
Self-injury is a “woman’s problem”.					
Self-injury can provide a release for anger.					
Self-injury expresses emotional pain.					
The best way to deal with people who self-injure is to make them stop.					
People who self-injure have a history of sexual abuse.					
Self-injury is a failed suicide attempt.					
Self-injury can provide an individual with help in dealing with problems.					
Self-injury is a coping strategy.					
Self-injury is attention-seeking.					
Self-injury helps a person maintain a sense of identity.					
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).					
Self-injury can provide escape from depression.					
People who self-injure need psychiatric hospitalization.					
Self-injury is a form of suicide.					
Self-injury is typically followed by suicide.					
Suicide and self-injury are not related.					
	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree

Self-injury includes behaviors that result in immediate harm, such as cutting, burning, skin picking, head-banging, and punching objects.

For the remainder of the survey, use the following definition when the term self-injury is used:

Self-injury is a direct, socially unaccepted behavior in which individuals purposefully harm themselves without the intention to die as a consequence.

13. What percentage of college aged individuals (18 to 22 year-olds) do you think engage in self-injury?
    a. Less than 1%
    b. 1-5%
    c. 6-10%
    d. 11-15%
    e. 16-20%
    f. 21-25%
    g. 26% or greater

14. At what age do most people begin to engage in self-injury?
    a. Below 5 years
    b. 5-8 years
    c. 9-12 years
    d. 13-15 years
    e. 16-22 years
    f. Over 23 years

15. Indicate your agreement with the following statements:

	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
Self-injury is evident in the popular media (internet, music, movies, TV, magazines).					
Internet forums (message boards, chat rooms, blogs) specifically about self-injury are easily accessible.					
The media (TV, movies, music, internet) has become a mechanism for spreading information about self-injury.					
Self-injury can be contagious, or spread among members of a group.					

16. Indicate how risky you find each of the following behaviors to be.

	Extremely Risky	Very Risky	Risky	Not Very Risky	Not At All Risky
Drinking while driving					
Having unprotected sex					
Smoking					
Doing drugs					
Speeding					
Cutting oneself					
Getting drunk					
Burning oneself					
Cheating on an exam					
Shoplifting					
Lying					
Skipping class					
Hitting oneself					

17. Please rate how often you engage in the following behaviors.

	Never Done	Done Once Daily	Done Occasionally	Done Often
Drinking while driving				
Having unprotected sex				
Smoking				
Doing drugs				
Speeding				
Cutting oneself				
Getting drunk				
Burning oneself				
Cheating on an exam				
Shoplifting				
Lying				
Skipping class				
Hitting oneself				

18. How have you learned about self-injury? (Mark all that apply)
    a. Peers/friends who talk about self-injury
    b. Talking with peers/friends who engage in self-injury
    c. Saw someone self-injure (in person, online, in a video or movie)
    d. Personal experience (you have engaged in self-injury at least once)
    e. Television or other popular media (i.e., news programs, World Wide Web, books/magazines)
    f. Scholarly/academic/educational outlets (i.e., scholarly websites, classrooms, lectures, published books/journals)
    g. Family members (either by talking about it or having a family member engage in the behavior)
    h. Mental health/medical professionals
    i. I have no knowledge of self-injury. (Skip to Question 20)
    j. Other:_____

19. Which two outlets selected in Question 18 are your **main** information sources for self-injury? (Mark only two)
    a. Peers/friends who talk about self-injury
    b. Talking with peers/friends who engage in self-injury
    c. Saw someone self-injure (in person, online, in a video or movie)
    d. Personal experience (you have engaged in self-injury at least once)
    e. Television or other popular media (i.e., news programs, World Wide Web, books/magazines)
    f. Scholarly/academic/educational outlets (i.e., scholarly websites, classrooms, lectures, published books/journals)
    g. Family members
    h. Mental health/medical professionals
    i. I have no knowledge of self-injury.
    j. Other:_____

20. How did you first become aware that self-injury was something that your friends do?
    a. I don't have any friends that self-injure.
    b. I saw my friends do it, either in person or online.
    c. I overheard my friend talking about it with someone else.
    d. I heard someone else talking about my friend doing it.
    e. I talked to my friend about it.
    f. I saw something my friend wrote about it.
    g. I heard about my friend self-injuring from one of his/her family members.
    h. I heard about my friend self-injuring from one of my family members.
    i. Other:_____

21. Indicate the extent to which you agree with the following statements:

	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
Self-injury is evident here at WKU.					
Self-injury is evident in college populations across America.					
Self-injury was evident in the high school I attended.					
Self-injury is evident in high school populations across America.					

22. How many people do you know, or have known (greater than an acquaintance), that self-injure?
    a. None that I know of.
    b. 1-2 people
    c. 3-5 people
    d. 6-10 people
    e. 10+ people

23. Of those individuals that you know, or have known (greater than an acquaintance), that self-injure, approximately how many were, or are, "close" friends (someone you interact with regularly)?
    a. I don't know anyone that self-injures.
    b. None of my close friends self-injure.
    c. 1-2 close friends
    d. 3-5 close friends
    e. 6-10 close friends
    f. 10+ close friends

24. Have any individuals within your **current** social group (those people that you interact with on a periodic basis rather than a regular basis) self-injured within the last year?
    a. Yes
    b. No
    c. I don't know

25. Indicate the number of individuals within your current social group that have self-injured within the last year.
    a. I don't know anyone in my current social group that self-injures.
    b. 1-2 individuals
    c. 3-5 individuals
    d. 6-10 individuals
    e. 10+ individuals

26. Regarding the individual(s) you know that have self-injured, have you talked with any of them about their self-injury?
    a. Yes
    b. No
    c. I don't know anyone that self-injures.

27. Have you spoken with anyone else (i.e., mutual friend, family) about the person and their self-injury?
    a. Yes
    b. No
    c. I don't know anyone that self-injures.

If you don't know anyone (either as a close friend or within your social group) that self-injures, then skip to Question 43. If you know more than one individual that self-injures, select the person you know best and respond to the following questions.

28. Indicate the gender of the individual you know that self-injures.
    a. Male
    b. Female

29. Is this someone you know from your college years or prior to college?
    a. College years
    b. Prior to college

30. How do you know the person self-injures?
    a. He/she told me.
    b. Someone else told me (i.e., roommate, friend)
    c. I caught him/her in the act of self-injury.
    d. I've noticed scars on him/her.
    e. Other:_____

31. If you indicated in the previous question (Question 30) that the person told you about their self-injury, who initiated the conversation?
    a. Him/her
    b. Me
    c. Another person
    d. He/she didn't tell me about the self-injury

32. Did your relationship with this person change due to your knowledge of the self-injurious behavior?
    a. Yes
    b. No
    c. Maybe (Our relationship changed partly due to the self-injurious behavior, but it was not the full reason)

33. Indicate your agreement with the following statements in reference to your relationship with the person after discovering he/she self-injures.

	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
I think less of the person.					
I do less with the person (i.e., hang out, go to dinner).					
I pity the person.					
I support the person.					
I feel closer to the person.					
We're very likeminded.					
We share the same interests.					
I've tried to learn more about self-injury.					
I've gained more tolerance for the behavior.					
His/her behavior really bothers me.					
I've tried to get him/her to stop the behavior.					
I feel the person is in need of professional help.					
I have aided the person in getting professional help.					

34. If your relationship changed, who initiated the change in the relationship?
    a. You
    b. Your friend that self-injures.
    c. Both you and your friend.
    d. The relationship did not change.

35. If you responded in the previous question that your relationship did not change, indicate the primary reason why you think your relationship did not change. (Mark only one) If you indicated that your relationship did change, skip to Question 36.
    a. I learned more about the behavior.
    b. I ignored the behavior.
    c. I talked with the person about the behavior.
    d. I can't tolerate being around people who engage in behavior I don't like or approve of.
    e. Self-injury is just a behavior; it doesn't make the person.
    f. I really liked the person.
    g. I decided to continue helping the person.
    h. Other:_____

36. Once the individual within your social group became aware of your discovery of his/her behavior, <u>did your knowledge of the self-injury impact his/her behavior?</u>
    a. Yes
    b. No

37. How did your knowledge of the self-injury impact his/her behavior?

	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
He/she stopped doing things with me (i.e., hanging out, going out to dinner, watching movies).					
He/she avoided talking to me.					
He/she reached out to me for understanding/help.					
He/she seemed to be relieved that I knew.					
He/she pretended that I didn't know.					
To my knowledge, his/her behavior did not change.					

38. In reference to the previous question (Question 37), did the individual within your social group behave in ways other than the ones listed?
    a. No
    b. Yes (Please describe:_____)

39. How long have you known that he/she self-injures?
    a. Less than 1 year
    b. 1 year
    c. More than 1 year, but less than 2 years
    d. 2 years
    e. More than 2 years

40. In regard to the individual you know that self-injures, is your relationship with that person still ongoing?
    a. Yes
    b. No

41. Based on the individual you know that self-injures, which statement best describes your feeling regarding the issue that your friend self-injures?
    a. Very distressing
    b. Somewhat distressing
    c. Neutral/Unsure
    d. Not very distressing
    e. Not distressing at all

42. Based on the individual you know that self-injures, what impact does his/her self-injury have on his/her functioning?
    a. They do fine (i.e., go to classes, make good grades, have good social life); if you didn't know they self-injure, you would never see a difference.
    b. They have some problems meeting the demands of everyday life, but their functioning is only slightly different than most people's functioning (i.e., change jobs more than other people, miss more classes than most students, have trouble dealing with daily stress).
    c. They have problems meeting the demands of life in that their functioning is impaired in some way (i.e., only one of the following areas affected—school, relationships, work).
    d. Their functioning is impaired in multiple ways (i.e., more than one area affected—school, relationships, work).

43. In general, which of the following best describes your thoughts of self-injurious behavior? (Mark all that apply)
    a. Disgust
    b. Fear
    c. It's a way to gain attention
    d. Pity
    e. Confusion
    f. Shock
    g. Curiosity/a need to know more, or a need to make sense, of the behavior.
    h. I'm not sure how I feel about self-injury.
    i. I have no thoughts regarding self-injury.
    j. They're doing what they need to in order to cope.
    k. I don't have a problem with it.
    l. It's a good way of dealing with stress.
    m. There's nothing wrong with it.
    n. Everybody has a right to do what he/she wants.
    o. Other:_____

44. What puzzles you about self-injury and/or what do you wish you knew about self-injury?
    a. _____

45. Have you ever spoken with anyone that does not engage in self-injury about self-injury?
    a. Yes
    b. No (Skip to Question 48)

46. If you responded yes to the previous question (Question 45), in what context did this topic occur?
    a. In a casual conversation with friends and/or family.
    b. In a classroom discussion.
    c. With a friend or family member of someone that self-injures.
    d. During a presentation/talk about self-injury.
    e. Other:_____

47. If you responded yes to Question 45, how frequently have you talked about the topic of self-injury with someone who does not engage in the behavior?
    a. Very Frequent
    b. Somewhat Frequent
    c. Not Very Frequent

48. Why do you think people who self-injure engage in the behavior? (Check all that apply.)
    a. For attention
    b. To cope with problems and/or emotions
    c. To gain control
    d. To reduce anxiety
    e. To self-punish
    f. To feel good or "alive"
    g. For the thrill or excitement
    h. I don't know why
    i. Other:_____

49. Indicate your agreement with the following statements:

	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
I feel that self-injurious behavior is something that people grow out of.					
I think that people who engage in self-injury are in need of mental health services.					
I would encourage someone that self-injures to get help.					
Self-injurious behavior is something that needs to be addressed in the college population.					

50. Would you want to maintain a relationship with a friend if they divulged that they self-injure?
    a. Yes
    b. No

51. Do you think there needs to be a better understanding of self-injurious behavior within college populations?
    a. Yes
    b. No

52. What methods would be best to provide college populations with information about self-injury? (Mark all that apply)
    a. Informational talks on the subject provided to various student groups
    b. A week-long awareness project devoted to self-injury on campus (informative talks, movies, presentations)
    c. Peer Counseling
    d. Campus self-injury telephone helpline
    e. Posters with helpful resources
    f. Information tables run by professionals who can help answer questions regarding self-injurious behavior
    g. I don't think it needs to be addressed.
    h. Other:_____

53. How concerned are you about individuals your age that self-injure?
    a. Not at all concerned
    b. Not very concerned
    c. Neutral/Unsure
    d. Somewhat concerned
    e. Extremely concerned

54. In general, what impact do you think self-injurious behavior has on self-injurers as a group?
    a. They do fine (i.e., go to classes, make good grades, have good social life); if you didn't know they self-injure, you would never see a difference.
    b. They have some problems meeting the demands of everyday life, but their functioning is only slightly different than most people's functioning (i.e., change jobs more than other people, miss more classes than most students, have trouble dealing with daily stress).
    c. They have problems meeting the demands of life in that their functioning is impaired in some way (i.e., only one of the following areas is impacted—school, relationships, work).
    d. Their functioning is impaired in multiple ways (i.e., more than one area affected—school, relationships, work).

YOU ARE NOT FINISHED! YOU NOW NEED TO ANSWER THE FOLLOWING QUESTIONS IN ORDER TO RECEIVE CREDIT FOR PARTICIPATION. YOU WILL NOT RECEIVE CREDIT FOR PARTICIPATION UNLESS YOU COMPLETE THIS LAST STEP! (This information will be kept separate from your responses to the survey.)

55. Type in your WKU student ID number and last name:_____

56. Type in the name of your course instructor for the class in which you will be receiving credit or the name of your faculty advisor for the organization in which you will be receiving volunteer credit:_____

57. Type in the name and/or number of your course for which you will be receiving credit or the name of the organization you are involved in:_____

Appendix E
Survey Review Question

Please review the attached survey by answering each of the following questions for each item contained in the survey. Keep in mind that the survey is intended for an undergraduate audience. If you find any items in which there needs to be revision, simply explain what is unclear or needs revision in the column labeled "comments" corresponding to the appropriate item(s). If you find any items in which no revision is needed, simply insert a checkmark under the column labeled "Okay as is" corresponding to the appropriate item(s).

Questions to Consider for Each Item:

1. Is the question clear in what it is asking?
2. Is there an available option for your answer?
3. Are there any words you do not know or are unsure of? (Are there any words that need defining or extra clarification?)
4. Are the directions contained within the survey easy to follow?

Are there any other errors or places for revision that does not fall under the previous questions?

Appendix F
Survey Informed Consent

SURVEY INFORMED CONSENT DOCUMENT

Project Title: Peers' Perception of Self-Injurious Behavior

Investigators: Shakeria Davis, B.A. and Elizabeth Jones, Ph.D.
Department of Psychology, 745-4414

You are being asked to participate in a project conducted through Western Kentucky University investigating peers' knowledge and perceptions of adolescents who self-injure. ***Please read the following information carefully.*** It describes the purpose of the study, the procedure to be used, risks and benefits of your participation and what will happen to the information that is collected from you. If you agree to participate in this project, 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 knowledge and understanding of self-injury and perceptions of peers who self-injure. The project is designed to examine the perceptions of those who do not self-injure, towards those who do.

2. **Explanation of Procedures:** Upon your consent, you will be asked to complete a survey that can be accessed by clicking the "I Agree" button below. You will be asked questions regarding your demographic information, number of peers you know who self-injure, knowledge of self-injury, perception of self-injury, and your responses to self-injury.

3. **Discomfort and Risks:** There are no known risks associated with participation. However, you need to be advised that the topic of self-injury is one that many find disturbing. You may feel free to discontinue if such occurs. Further, if you engage in

self-injurious behavior, participating in this survey could have unwanted consequences. Please contact the researcher(s) if this is the case.

4. **Benefits:** Upon completion of the survey, you will receive research participation credit, extra credit for your psychology course, and/or participation credit for your designated campus organization. The results of this survey will provide better information regarding peers' knowledge and perception of self-injury. Psychologists, professors, and parents will benefit in that this research will provide information to help better train these individuals to deal with the increasing problem among adolescents.

5. **Confidentiality:** All responses to this 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 personally engage in self-injurious behavior, you will suffer no repercussions for not participating.

7. **Questions:** If you have any questions regarding the survey or results, please contact Shakeria Davis at davisfs@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.

Please read the following statements carefully and click the "I Understand" and "I Agree" buttons that follow to acknowledge that you have read and understood the following considerations and agreements.

Because of subject matter, I realize the discussion may be uncomfortable or disturbing, and that I may withdraw without penalty at any time if such occurs.

O I Understand

I acknowledge that responding to items concerning self-injurious behavior may cause discomfort and/or trigger thoughts of self-injury.

O I Understand

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.

O I Agree O I Decline

THE DATED APPROVAL ON THIS CONSENT FORM INDICATES THAT
THIS PROJECT HAS BEEN REVIEWED AND APPROVED BY
THE WESTERN KENTUCKY UNIVERSITY HUMAN SUBJECTS REVIEW BOARD
Sean Rubino, Compliance Manger
TELEPHONE: (270) 745-4652

Appendix G
Survey Debriefing Statement

Thank you for participating in this online study. This study was designed to gain information on peer group knowledge and understanding of self-injurious behavior. If you would like a final copy of the research project, please contact Dr. Elizabeth Jones at (270) 745-4414, or at the Department of Psychology, Western Kentucky University, Bowling Green, KY 42101. The final copies will not be available until after May 2009.

Appendix H
Human Subjects Review Board Approval Letter

WESTERN KENTUCKY UNIVERSITY
Human Subjects Review Board
Office of Sponsored Programs
301 Potter Hall
270-745-4652; Fax 270-745-4211
E-mail: Sean.Rubino@wku.edu

In future correspondence please refer to HS08-186, April 25, 2008

Shakeria Davis
c/o Dr. Elizabeth Jones
Department of Psychology, WKU

Dear Shakeria:

Your amendments to your research project (formerly 07-191), "Determining Peers' Perception of Self-Injurious Behavior," 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 indicated link 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 May 31, 2008

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. 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 Davis HS08-18