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ASSESSING SELF-INJURIOUS BEHAVIORS ON A COLLEGE CAMPUS

By

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Abstract

The purpose of this study was to examine the prevalence, as well as perceived positive and negative consequences, of a wide range of risky and self-injurious behaviors (SIB). Participants were 215 undergraduate students (56.3% female), who were administered the Self-Injurious Behavior Risk Assessment (SIBRA), which was designed for this study; and the Eysenck Impulsiveness Scale (EIS; Eysenck, 1985). To compare behaviors viewed as having benefits which outweigh risks, a reward/risk ratio was rank ordered. Correlations were computed between item-total frequency, perceived consequences, the reward/risk ratio, and the EIS. Results found a variety of behaviors being endorsed by students, as well as eleven significant gender differences. Perceived benefits, gender, impulsiveness, venturesomeness, and empathy were all found to be related to SIB.

Self-injurious behavior (SIB) is any behavior that is a deliberate attempt to inflict physical harm to one's own body. Pattison and Kahan (1983) define SIB as "sudden and recurrent intrusive impulses to harm oneself without perceived ability to resist" (p. 867). Individuals who engage in SIB are conscious that their behaviors are not suicide attempts (Simeon & Favazza, 2001). By definition, suicidal intent cannot be present in self-injurious behaviors; however; some studies have found suicidal ideation to co-exist in individuals displaying SIB, ranging from 28% to 41% (Favazza, 1996; Pattison & Kahan, 1983). As such, the distinction among nonsuicidal ideation, suicide intent, and suicide ideation in SIB can be difficult to determine.

The DSM-IV (American Psychiatric Association [APA], 1994) has a minimal listing of disorders in which SIB occur. These include: trichotillomania; impulse control disorder not otherwise specified; borderline personality disorder; and stereotypic movement disorder with self-injurious behavior. However, another system for classifying SIB has been developed and is widely used. Favazza (1995) places SIB into four categories: Stereotypic, Major, Compulsive, and Impulsive. Stereotypic SIB is highly repetitive, fixed behavior such as head banging, skin chewing, and self-hitting. These behaviors are often associated with forms of mental retardation and can lead to mild to severe tissue damage. Major SIB is usually an isolated incident that is severe or life threatening. Behaviors such as self-castration and limb amputation fall under this category, which are found in disorders characterized by severe psychosis and occasionally transsexualism. Compulsive SIB is often ritualized, repetitive behaviors such as hair pulling (classified in the DSM-IV as trichotillomania), nail biting, and skin-picking. The last category is Impulsive SIB, including skin cutting, skin burning, and

self-hitting. These behaviors are not highly repetitive and are sometimes associated with Borderline Personality Disorder, Antisocial Personality Disorder, abuse, trauma, and dissociation. Thus, Favazza's (1995) method of classifying SIB offers a more precise way to look at the different types of self-injurious behavior than does the DSM-IV. This organization of type and severity of SIB may lead to a better understanding of the functions and motivations these behaviors serve in self-harming individuals.

To help understand these behaviors, Liebenluft (1987) described five stages of SIB. First, there is an event that precipitates the behavior, usually involving feelings of loss, rejection, or abandonment. In the second stage, the negative feeling becomes an intolerable state. The third stage consists of attempts to resist the urge to self-injure and is followed by the fourth stage, implementation of the self-injury. The fifth stage is post self-injury, often involving a brief period of relief.

Treating the patient who engages in SIB is difficult, in part because it is hard to understand what motivation individuals have to intentionally hurt themselves, without the presence of suicidal intent. The motivations reported by people who self-injure are complex and often unique to the individual. However, a study of primarily female, Caucasian women by Briere and Gil (1998) found two reasons most commonly endorsed in self-mutilating individuals: a) distracting oneself from painful feelings, and b) self-punishment. Through factor analysis of a measure of motivations for SIB, they found nine motivating reasons for engaging in SIBs:

> 1) decrease dissociative symptoms, especially depersonalization and numbing; 2) reduce stress and tension; 3) block upsetting memories and flashbacks; 4) demonstrate a need for help; 5) ensure safety and self-protection; 6) express and

release distress; 7) reduce anger; 8) disfigure self as punishment; and 9) hurt self in lieu of others (p. 615).

Few studies have explored the motivation for SIB. Croyle (2000) evaluated 290 undergraduates to determine frequencies and reasons for engaging in SIB. Participants who engaged in SIBs such as punching, cutting, or burning oneself in the last three years indicated they wanted: "to feel something even if it was pain", "to stop bad feelings", and "to punish myself" (p. 113).

In summary, it appears that SIB provides quick, temporary relief from a range of intolerable states. This relief can easily be achieved again by repeating the SIB (Simeon & Favazza, 2001). While the range of reported functions is vast, self-injurious behaviors are used as strategies for coping with distressing states.

Prevalence of SIB

The prevalence of SIB among different populations, such as psychiatric inpatients and outpatients, has been found to vary. Briere and Gil (1998) reviewed the prevalence of SIB in a clinical sample. They found rates to be as high as 21%. The most commonly endorsed methods of SIB in this group included: cutting, biting inside one's mouth, scratching, punching oneself, biting one's nails, and punching walls. In populations of inpatients diagnosed with Borderline Personality Disorder, the prevalence of SIB was as high as 50%, and the most common method was cutting (Fowler & Hilsenroth, 1999). In a study of 175 outpatients diagnosed with Bulimia Nervosa, 22.3% reported skin cutting and/or burning, 35.4% reported hair pulling, and 45.7% reported severe nail biting (Favaro & Santonastaso, 1999).

Although the prevalence of SIB is high in clinical samples, it also is important to study the rates of reported self-injury in the general population. A national survey conducted by Briere & Gil (1998) found that 4% of participants reported some occasional instance of SIB over the last six months, based on their response to the Traumatic Symptom Inventory (Briere, 1995) item, "Intentionally hurting yourself (e.g., by scratching, cutting, or burning) even though you weren't trying to commit suicide". In a university setting, Croyle (2000) found the prevalence of self-harm as high as 68% for behaviors categorized as low self-harm (i.e. sticking pins in the skin and not drawing blood, interfering with wound healing, skin picking or scratching, fingernail biting, and pulling out large amounts of hair), and 35% for behaviors categorized as high self-harm (i.e. punching, cutting, or burning oneself). Keuthen, Deckersbach, Wilhelm, Hale, Fraim, Baer, O'Sullivan, and Jenike (2000) found that skin picking was reported by 38.1% of their undergraduate student participants at an average rate of 15.2 minutes a day. Other studies have found prevalence's of SIB in university student samples to range between 16% (Rulf-Fountain, 2001) and 35% (Gratz, 2001).

Other populations where SIB is commonly found are adolescents, the mentally retarded, prisoners, and individuals with histories of trauma. There is evidence to suggest there is a high prevalence of SIB among adolescents. One such study found 15.9% engaged in cutting, scratching, and self-hitting (Muehlenkamp & Gutierrez, 2004). Other studies of SIB in individuals aged 18-90 found self-injurious behaviors to be correlated with younger age (Briere & Gil, 1998; Osuch, Noll & Putnam, 1999).

SIB prevalence among the mentally retarded is estimated at 3% to 46% (Simeon & Favazza, 2001). Included in this category are individuals who have Autism or Lesch-

Nyhan, Cornelia de Lange, or Prader-Willi Syndromes. The common methods of SIB observed in these individuals are head banging, self-hitting, skin picking, self-biting and hair pulling. These behaviors are often highly repetitive and lack thought or meaning (Simeon & Favazza, 2001).

Self-injurious behavior is fairly common among male prison inmates, with rates averaging about 5%. What is interesting about SIB in this population is the difference in motivation and methods when compared to clinical and general populations. Motives in this group are commonly related to manipulation and secondary gain, such as receiving medical attention and hospital stays, in order to be removed from the prison setting. The methods in this group can be severe to life threatening and include swallowing razor blades and broken glass, seriously slashing themselves, head banging, and inserting foreign objects into the urethra. Severe personality disorders are commonly found in this group, including Antisocial and Borderline Personality Disorders (Simeon & Favazza, 2001).

Another group commonly engaging in SIB consists of individuals who have histories of trauma, especially in their childhoods. One study found 45-56% of their self-harming participants had a history of some type of sexual abuse, and 26-33% reported a history of experiencing or witnessing physical abuse (Croyle, 2000). A study by Rulf-Fountain (2001) found "participants who engaged in SIB had a greater number of traumatic experiences and/or were more affected by them" (p. 37). Another study by Briere and Gil (1998) found participants who engaged in SIBs were more likely to report a history of sexual abuse on the Trauma Symptom Inventory (Briere, 1995). Osuch et al. (1999) studied 99 inpatients and found scores on their measure of SIB correlated with

scores on the Davidson Trauma Scale (Davidson, Book, Colket, Tupler, Both, David, et. al. 1997).

Impulsiveness and SIB

There is some research to suggest a relationship between impulsiveness and SIB. As mentioned previously, certain kinds of self-harm are classified as impulsive self-injurious behaviors, and the DSM-IV considers some forms of SIB (e.g., trichotillomania) to be an impulse-control disorder. Favazza and Conterio (1988) found 78% of their 240 female self-mutilating participants decided to self-mutilate on the spur of the moment. Simeon et al. (1992) measured impulsiveness in 26 self-mutilating patients with personality disorders and found a significant positive correlation between the degree of self-mutilation and impulsivity.

Dolin, Kelly, and Beasley (1992) studied self-destructive behaviors and impulsiveness in 253 male and female adolescents who were residing in detention facilities for delinquent adolescents. Using the Hypomania scale of the MMPI, Dolin et al. found higher levels of chronic self-destructive behavior to be associated with higher levels of impulsiveness.

Croyle (2000) compared types of SIBs among undergraduate students with their level of impulsiveness. She found self-hitting or cutting to be more strongly associated with impulsiveness than less harmful SIBs, such as fingernail biting and skin picking. She suggested that an individual who is impulsive may be more likely to give in to the urge to self-harm to quickly relieve intolerable affects, rather than seeking out less destructive methods that would require slightly more planning.

Culture, Ethnicity, and SIB

Self-injury has been a common phenomenon in various cultures for a long time. For example, in Morocco Muslim healers slash open their heads so that the sick may dip bread in their blood. Their belief is that the ingestion of the healers' blood will be therapeutic for the person who is ill. Another example is found in the Eastern Orthodox Skiptsi sect, which self-castrates in order to resist sexual sin (Favazza, 1996). An important distinction here is that these practices are considered socially acceptable and consistent with cultural values. Therefore, they are not considered to be "abnormal" or pathological. Likewise, beautification methods in Western society, such as body piercing and tattooing, may not be considered SIB (although some might argue differently).

Little research has been done on SIB within different racial, ethnic, and cultural groups, as most studies are conducted with predominantly Caucasian participants. Across studies, Caucasian participants consist of 60 - 85% of the sample (Briere & Gil, 1998; Brown, Comtois, & Linehan 2002; Fromme, Katz, & Rivet, 1997; Gratz 2001; Muehlenkamp & Gutierrez, 2004; and Osuch et al., 1999). Of note, no study has evaluated self-injurious behaviors within large and/or representative African American and Hispanic samples. Other minorities, such as Native Americans, have also been overlooked. The lack of participants from diverse backgrounds in many studies could be due to many factors, such as researcher access to minority populations. Nevertheless, it would be helpful to research the prevalence of SIB in these groups in order to better understand acceptable and unacceptable cultural expressions of SIB.

College Campuses and Risk-Taking Behavior

There are many risky behaviors common on college campuses, such as binge drinking and unprotected sex, which arguably are not classified as SIB. According to the Harvard School of Public Health College Alcohol Survey, which surveyed 14,521 students attending 130 different colleges in the United States, 42.7% of all surveyed students reported having engaged in binge drinking at least one or two times during the two weeks prior to participating in the study (Wechsler, Dowdall, Maenner, Glendhill-Hoyt, & Lee, 1998). Binge drinking was defined as having at least five consecutive drinks for men, or at least four drinks consecutive drinks for women. The survey also examined the prevalence of alcohol-related problems among students who reported having consumed alcohol in the past year. Frequently reported problems included: doing something later regretted (36.5%), driving after drinking alcohol (35.8%), missing class (30.2%), and forgetting things that occurred while drinking (30.2%).

In a study of 270 undergraduate students, Park (2004) found that 90% reported having consumed alcohol in the past month. The most frequently reported negative experiences while drinking alcohol fell into the categories of "being sick/hangover" (30% of male participants and 52% of female participants) and "sexual activity/kissing" (17% of male participants and 21% of female participants). Results also found a positive correlation between alcohol consumption and both positive and negative alcohol related consequences. The most frequently reported positive experiences were "having fun/socializing" (47.5% of male participants and 56.3% of female participants) and "expressing oneself" (13.7% of male participants and 17.7 of female participants).

Two types of risky sexual behaviors that are fairly common to college campuses are casual and unprotected sex. A study by Paul, McManus, and Hayes (2000) examined casual sex, as well as "hookup experiences that did not result in sexual intercourse". Of the 555 undergraduate student participants, 169 had engaged in casual sex at least once, and 266 had experienced at least one hookup that did not result in sexual intercourse.

The Spring 2003 American College Health Association National College Heath Assessment (ACHA-NCHA) examined use of contraception among 19,497 college students nationally. Participants reported that the last time they had sexual intercourse, 3.6% used no method of contraception (American College Health Association, 2003). Another study, by Parsons, Halkitis, Bimbi, and Borkowski (2000) assessed condom use among 704 college students. Twenty-five percent of their sample reported never using a condom when they had sex in the past month. When asked about their most recent sexual experience, 48% reported that a condom was not used.

Buunk and Dijkstra (2000) examined rationalizations and attributions for engaging in risky sexual behaviors among 39 participants who engaged in high-risk sexual behaviors. The most commonly reported rationalization for having sex without a condom were: "The partner probably is not infected" and "I trust the partner, so it is not necessary to use a condom". The most commonly reported attributions for having sex without using a condom were: "I thought it was more pleasant to have sex without a condom" and "I accepted the risk" (p. 129).

Future Research and the Proposed Study

There are many aspects of the phenomenon of SIB in which further research would be beneficial. While most studies focus on socially unacceptable self-injurious behaviors (such as cutting or burning one's own skin), there are many more prevalent behaviors which can be self-injurious, and yet are commonly accepted or performed in society, especially among certain peer groups. These include drinking alcohol too quickly, driving after drinking alcohol, sex without protection against pregnancy, and missing class or work (which are all fairly common among students at a college campus). This higher prevalence may be due to the fact that the person's expected benefit from the potentially self-injurious behavior outweighs the risk. Fromme et al. (1997) examined the outcome expectancies of a variety of potentially risky and self-injurious situations. They found six behavior categories that were perceived to have a potentially high reward value despite their risk: illicit drug use, aggressive/illegal behaviors, risky sexual behaviors, heavy drinking, high risk sports, and academic/work behaviors. Their results found "perceived benefits, rather than perceived risks, may be the key to predicting young adults' involvement in a variety of risky activities" (p. 438). Using this assessment tool to examine a wide range of self-injurious behaviors, including behaviors less prevalent in the general population (e.g., skin cutting and hair pulling), would be extremely useful to further understand the spectrum of SIB.

Therefore, the purpose of this study was to:

1) Create a comprehensive measure of SIBs that range in the degree to which they are dangerous.

2) Assess the frequency of SIB in a group of college students.

3) Assess the perceived risks and rewards of such behaviors.

4) Evaluate how the perceived risks and rewards are related to the frequency of engaging in these behaviors.

5) Assess impulsivity and its relationship to the frequency of these behaviors.

Method

Participants

Participants were recruited from undergraduate psychology courses at Eastern Michigan University. Participants received extra credit in their class for completion of the study. An attempt was made to obtain equal numbers of male and female participants through selective recruitment by gender during the last two months of data collection. Two hundred fifteen individuals consented to participate in the study. Of these, thirteen participants inadvertently did not complete the measure of impulsiveness; however, the data obtained from the other measures was still used.

Measures

Informed Consent - An informed consent form was created for this study. It explained participants' rights, possible distress due to participation, and the voluntary and anonymous nature of the study.

Demographics Questionnaire – A short questionnaire was created in order to obtain certain demographic information. The questionnaire contained 4 items to assess the participants' age, gender, ethnicity, and marital status.

Items from three questionnaires were combined into one expanded measure, the *Self-Injurious Behavior Risk Assessment* (SIBRA), which was created for this study:

a) *The Cognitive Appraisal of Risky Events Questionnaire* (CARE; Fromme, Katz, & Rivet,1997). The CARE is a 30-item Likert questionnaire that was designed to assess perceptions of the risks and benefits consequential to engaging in risky activities. This self-report measure was designed for young adults and was found to be psychometrically sound. Ten-day test-retest correlations ranged from r = .51 to .65 for the expected risk and from .58 to .79 for the expected benefit. Cronbach's alpha coefficients indicated satisfactory internal consistency, ranging between .64 and .90.

b) In order to assess less common self-injurious behaviors (such as cutting and hair-pulling) 14 items from a self-injurious behavior questionnaire were added to the original CARE questionnaire. These items were selected from a dissertation by Rulf-Fountain (2001) and included a range of self-injurious behaviors such as "Intentionally engage in a behavior that produces bruising", "Purposely cut or gouge myself with a razor blade, broken glass, or other object" and "Intentionally pulling out my hair or eyelashes".

c) One item, "Bitten your fingernails enough to cause bleeding or pain", was taken from another self-injury screening assessment which was developed for a dissertation by Croyle (1997).

A frequency of involvement scale was created using the same items. The scale assesses involvement over four age categories (12-14, 14-16, 16-18, and 18-current) with a 4-point Likert scale. The participant is asked to report involvement in each of the 45 behaviors from the measure mentioned previously, for each age category. The Likert scale used for this measure ranges from having never engaged in the behavior during the

particular age category (0), to having engaged in the behavior four or more times during the age category (4).

The Eysenck Impulsiveness Scale (EIS; Eysenck, 1985). The EIS is a 54-item yes-no questionnaire designed to measure impulsiveness. Three subscales are computed from this measure: Impulsiveness, Venturesomeness, and Empathy. Impulsiveness is defined as "behaving without thinking and without realizing the risk involved in the behavior". Venturesomeness is conceptualized as "being conscious of the risk of the behavior but acting anyway" (p. 352); (Eysenck [1985] did not provide an operational definition of Empathy). The questionnaire was constructed through factor analysis to contain items that most highly loaded on impulsiveness and venturesomeness (Eysenck & Eysenck, 1978). The EIS is a widely used and well-validated measure. Test-retest reliability is reported to be .78 for the Venturesomeness scale and .90 for the Impulsiveness scale.

Procedure

Participants signed up for the study during their undergraduate psychology classes, approximately one to three weeks prior to participating. All participants were emailed a reminder the day before their session. During their designated session, participants met with an experimenter in a quiet room. Each session involved between 1-15 participants. All participants completed the informed consent form. Next the demographics questionnaire, the SIBRA, and the EIS were administered in counterbalanced order. An additional measure, the Parental Representation Scale (Blatt, Chevron, Quinlan, Schaffer, & Wein; 1992) was administered as part of another study, but results from this measure are not reported here. Participants completed the measures in approximately 45 minutes. After participating, each student was given a handout with

the contact information for the health center and psychology clinic on campus. This precaution was taken in case questionnaires elicited distressing thoughts or feelings.

Results

Participants' ages ranged from 18-53 and had a mean of 22.05 (6.34) years. The sample was 56.3% female (n=121) and 43.7% male (n=94). One hundred forty-three (66.8%) participants reported their ethnicity to be Caucasian, 44 (20.6%) African American, 6 (2.8%) Asian, 5 (2.3%) Hispanic, and 15 (7.5%) reported "Other" as their ethnic category. The majority of participants were single (87.4%).

Table 1 presents the mean frequency across each age range for each SIBRA item. Also presented are the total frequency and mean for each item when age categories are combined. When age categories are combined, the highest possible frequency a participant could endorse for each item is 16. The mean total frequencies for each item also are shown by gender. There were 11 items on which significant gender differences existed, all of which included a higher frequency in males than females. Items which had the largest significant gender differences include: "Punch or hit someone with a fist (t = 4.70, $p \leq .01$)"; "Grab, push, or shove someone" (t = 4.58, $p \leq .01$); "Leave with someone I have just met or don't know well" (t = 3.85, $p \leq .01$); "Fail to do assignments" (t = 3.72, $p \leq .001$); and "Damage public property" (t = 3.35, $p \leq .001$). Items with the highest total frequency include: "Leaving tasks or assignments for the last minute" (Total f = 2,411, M = 11.54); "Playing individual sports" (Total f = 2,072, M = 10.26); and "Getting into a fight or argument" (Total f = 1,958, M = 9.46). Items with the lowest total frequency include: "Rub, drip, or scrub my skin with an abrasive substance" (Total f = 0, M = 0); "Intentionally break my own bones" (Total f = 1, M = 0.005); "Carve words or

pictures into my skin" (Total $f = 33$, $M = 0.16$); and "Intentionally bite myself hard enough to leave a mark or cause bleeding" (Total $f = 73$, $M = 0.35$). Internal consistency of the SIBRA was calculated to be .88 (Cronbach's alpha).

Table 2 presents the mean scores for each item on both the positive and negative consequence ratings for the SIBRA. To assess the relative reward to risk ratio of each item, a new variable was created by dividing the positive consequences score by the negative consequence score for each item. This variable was called the reward-risk ratio and is presented in rank order in Table 2. "Playing individual sports" was rated as having the most positive benefits, and "Intentionally break my own bones" was rated as having the most negative outcomes.

The mean scores for the EIS subscales were as follows: Impulsiveness ($M = 7.28$, $SD = 4.01$); Venturesomeness ($M = 9.52$, $SD = 3.72$); and Empathy ($M = 13.67$, $SD = 3.04$). The mean total for the EIS was 30.48 ($SD = 6.95$).

Pearson correlations were computed between SIBRA item-total frequencies and the EIS subscales. Results are presented in Table 3. Impulsiveness significantly correlated with several SIBRA item total frequencies. Items which correlated with the EIS Impulsiveness subscale most highly included: "Not studying for an exam or quiz" ($r = .36$, $p \leq .01$); "Drinking 5 or more alcoholic drinks" ($r = .29$, $p \leq .01$); "Not studying or working hard enough" ($r = .28$, $p \leq .01$); "Making a scene in public" ($r = .28$, $p \leq .01$); "Slapping someone" ($r = .27$, $p \leq .01$) and "Drinking alcohol too quickly"($r = .25$, $p \leq .01$). The Venturesomeness subscale significantly correlated with several SIBRA item total frequencies. The items which correlated most highly included: "Playing drinking games" ($r = .36$, $p \leq .01$); "Rock or mountain climbing" ($r = .36$, $p \leq .01$); "Drinking 5

or more alcoholic drinks" ($r = .34$, $p \leq .01$); "Playing non-contact team sports" ($r = .32$, $p \leq .01$); "Snow or water skiing" ($r = .30$, $p \leq .01$); and "Leaving a social event with someone I have just met or don't know well" ($r = .28$, $p \leq .01$). Statistically significant correlations also existed between the EIS Venturesomeness subscale and several of the less prevalent self-injurious behaviors, such as "Intentionally engaging in a behavior that produces bruising" ($r = .17$, $p \leq .05$); "Intentionally burn myself with a lit cigarette, match or other object" ($r = .16$, $p \leq .05$); "Intentionally scratch myself with fingernails or other objects hard enough to leave marks or cause bleeding" ($r = .16$, $p \leq .05$); and "Deliberately bite myself hard enough to leave a mark" ($r = .15$, $p \leq .05$). The EIS Empathy subscale correlated with three items; "Miss class or work" ($r = .20$, $p \leq .01$), "Last minute assignments" ($r = .19$, $p \leq .01$), and "Not studying hard enough" ($r = .15$, $p \leq .05$).

The correlations between SIBRA item-totals, positive ratings, negative ratings, and reward/risk ratio are presented in Table 4. Positive ratings on the SIBRA items significantly correlated with the SIBRA items' total frequency of involvement. There were moderate, statistically significant positive correlations between theses variables on several items, the highest including: "Playing drinking games" ($r = .56$, $p \leq .01$), "Smoking marijuana" ($r = .56$, $p \leq .01$), and "Drinking more than 5 alcoholic drinks" ($r = .52$, $p \leq .01$).

Discussion

One purpose of this study was to create a psychometrically sound, comprehensive measure of self-injurious behaviors that range in the degree to which they are dangerous. Results indicated the measure had solid internal consistency and that individuals

endorsed a wide range of behaviors that varied considerably in how potentially positive or negative the outcome was perceived. The measure also is an improvement from past studies, which have assessed fewer behaviors.

A second purpose of this study was to assess the frequency of SIBs in a group of college students. The results found that college students engage in many potentially dangerous behaviors. As expected, behaviors such as playing sports and missing class were reported with much higher frequency than behaviors such as skin cutting or burning. The results were also examined by gender, and significant gender differences were found for eleven behaviors, all of which were endorsed with greater frequency in males than in females. Several of these behaviors can be characterized by aggression, such as "grabbing, pushing or shoving someone" and "punching or hitting someone". This is not surprising, as it is well known that males tend to express more physical signs of aggression than females. Other items that male participants differed on were risky sexual behaviors (such as "having sex with someone I just met") and academic behaviors (such as "missing class or work" and "not studying for an exam").

Assessing the perceived risks and rewards of these behaviors was a third purpose of this study. The reward/risk ratio was created in order to obtain an understanding of how the perceived positive and negative consequences of SIBs correspond to each other. The list is a useful tool for considering which behaviors college students believe to be most rewarding despite the risk. Of particular interest for this population were that smoking marijuana and playing drinking games were viewed as having more positive outcomes despite possible negative consequences. This also is supported by the fact that participants reported engaging in these behaviors frequently. There are at least two

possible explanations why college students engage in such activities. Specifically, this could be a means of bonding and socializing with friends (Simons, Correia, & Carey, 2000; Simons, Correia, Carey, & Borsari, 1998), and a means of having fun (Nagoshi, Wood, Cote, & Abbit, 1994).

Evaluating how the perceived risks and rewards are related to the frequency of involvement in these behaviors was a fourth purpose of this study. Both perceived positive consequences and the reward/risk ratio positively correlated with frequency of involvement. For many behaviors the perceived positive consequences yielded larger correlations with frequency of involvement than did the reward/risk ratio. This may suggest that considering the negative consequences of a behavior may decrease involvement in that behavior; however, individuals still engage in many SIBs despite the possible risks.

There is at least one clinical implication of these findings. Despite the fact that students acknowledge negative consequences to certain SIBs, they still report greater pleasure from the behavior than potential harm. As such, therapeutic efforts that are directed at solely increasing awareness of the negative consequences may not be as effective as efforts that also include a thorough understanding of the pleasure amounted as result of such activities, and ways in which such pleasure needs may be gratified in more adaptive ways. For example, a client who drinks alcohol to relieve anxiety may be better served in therapy by learning new, more adaptive methods for handling anxiety, rather than being informed about the negative health effects of alcohol.

The fifth purpose of this study was to assess impulsivity and its relationship to the frequency of these behaviors. Both the Impulsiveness and the Venturesomeness subscales

of the EIS correlated with the frequency of involvement for many behaviors. While these scales correlated with involvement in many common risky behaviors, such as drinking alcohol and missing class, Venturesomeness alone correlated with many of the less common SIB's, such as purposely burning, scratching, or biting one's own skin. By definition, Venturesomeness is engaging in risky behaviors despite having previously considered the possible consequences. Thus, it is possible that an important component of engaging in SIBs is Venturesomess, (not merely impulsiveness), which may indicate a trait-like quality. This idea deserves further attention.

In many ways, Venturesomeness is similar to the Openness to Experience domain within the Five Factor Model of Personality (Costa & McCrae, 1999). People with high levels of Openness to Experience are characterized as being curious, imaginative, liberal, original, and prefering variety. There is some evidence to suggest a relationship between high Openness to Experience and SIBs. Flory, Lynam, Milich, Leukefeld, and Clayton (2002) examined marijuana use and personality traits in a community sample of 481, 21 year-old participants. They found marijuana abuse symptoms predicted Openness to Experience. A study examining the relationship between the Big Five personality domains and sexual attitudes (Heaven, Fitzpatrick, Craig, Kelly, & Sebar, 2000) found that high Openness to Experience was related to low sexual nervousness in males. In this study, sexual nervousness can be conceptualized as being uncomfortable with sexual topics. However, a study that evaluated the relationship between Openness to Experience and risky sexual behaviors found an inverse positive correlation between Openness to Experience and having sex without using a condom. Results also found that early childrearing, as well as being sexually active at an early age, could be predicted by low

Openness to Experience (Miller, Lynam, Zimmerman, Logan, Leukefeld, & Clayton, 2003). However, when these results were evaluated at the facet level a different pattern emerged. The facets of low Openness to Aesthetics and low Openness to Fantasy were related to risky sexual behaviors, rather than low openness to Actions.

To date, there has been little research on the relationship between Openness to Experience and uncommon SIBs, such as cutting. One study (Berlin & Rolls, 2004) found that self-harming Borderline Personality Disorder patients had lower levels of Openness to Experience than non-disordered controls. Interestingly, the authors also found a negative correlation between Openness to Experience and impulsiveness. This may indicate that, for Borderline Personality Disorder patients, low Openness to Experience may perpetuate negative coping behaviors such as self-mutilation and substance abuse. It should be noted that this sample consisted of psychiatric patients and yielded slightly different findings than studies conducted using nonclinical samples. Thus, for future research, it would be beneficial to examine Openness to Experience in relation to self harm among a non-clinical sample.

Interestingly, the EIS Empathy subscale correlated with three items associated with delayed academic behaviors: “Missing class or work”, “Leaving tasks or assignments for the last minute”, and “Not studying or working hard enough”. Past research on the relationship between empathy and academic success has yielded inconclusive findings. Wong, Day, Maxwell, and Meara (1995) found social perception (the ability to understand the emotional states of other people) positively correlated with academic success. However, Parker, Summerfeldt, Hogan, and Majeski (2003) found that interpersonal intelligence (the ability to recognize and understand other people’s feelings)

alone was not related to academic success in high school or first year college students. Perhaps the findings of the current study indicate that the delay in completing academic activities is the result of empathetic individuals putting more effort into understanding and maintaining their social relationships, thus forgoing their academic responsibilities. Further investigation is needed to understand this relationship better.

There are some limitations to this study. First, many of the behaviors being assessed are uncommon in a non-clinical sample; thus, the results yielded low prevalence on such behaviors. Also, it would be beneficial to add an attempted suicide item, as well as an item which addresses SIBs typical of eating disorders, as these behaviors are sometimes found in undergraduate students. Finally, because the study was conducted using undergraduate students at a university in Michigan, the findings may not be applicable to the general population.

In conclusion, a new, more expansive measure of SIBs has been developed that shows promise for its utility. It also is clear that a wide range of risky and self-harmful behaviors are being endorsed by college students throughout their adolescence and into the present. Furthermore, perceived positive consequences appear to be strongly associated with risky behavior, which is consistent with what has been found in previous research (Fromme et al., 1997, Park, 2003). Gender, impulsiveness, venturesomeness, and empathy also seem to be related to involvement in SIBs. Knowledge of these findings in a college student sample may be useful when working with them in a counseling or therapeutic role.

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Table 1

Mean Frequencies of SIBRA Items across Age Categories and by Gender

SIBRA Item	Age Range				Overall M	Total Frequency	Male M	Female M
	12-14	14-16	16-18	18				
1. Play individual sports	2.78	2.80	2.57	2.09	10.26	2072	11.31*	9.41
2. Miss class or work	1.58	2.04	2.61	2.68	8.93	1839	8.46	9.29
3. Any self-harmful behavior	0.38	0.84	1.30	1.43	3.96	823	4.23	3.74
4. Grab or push someone	1.31	1.24	1.14	1.05	4.72	973	6.56***	3.27
5. Leave with someone I just met	0.05	0.16	0.56	0.91	1.65	344	2.43***	1.04
6. Pull out my hair or eyelashes	0.18	0.21	0.29	0.35	1.04	218	1.24	0.89
7. Drive after drinking alcohol	0	0.11	0.61	1.27	2.00	421	2.43*	1.67
8. Make a scene in public	0.43	0.56	0.72	0.90	2.55	527	3.02	2.17
9. Scratch self. Leave marks	0.19	0.26	0.26	0.20	0.93	195	0.92	0.93
10. Drink 5+ alcoholic drinks	0.11	0.56	1.65	2.38	4.67	972	4.60	4.73

SIBRA Item	Age Range 12-14	14-16	16-18	18	Overall M	Total Frequency	Male M	Female M
11. Not studying for an exam	1.95	2.00	2.35	2.19	8.42	1752	9.61**	7.52
12. Drink alcohol too quickly	0.14	0.46	1.21	2.00	3.81	796	4.16	3.53
13. Bite self and leave a mark	0.12	0.09	0.08	0.06	0.35	73	0.54	0.19
14. Bruising behavior	0.22	0.28	0.0	0.33	1.19	248	1.79*	0.72
15. Disturb the peace	0.29	0.45	0.71	0.71	2.13	448	2.72	1.68
16. Eat toxic or sharp substances	0.03	0.02	0.07	0.08	0.20	41	0.27	0.14
17. Intentionally burn myself	0.02	0.05	0.07	0.05	0.20	41	0.26	0.14
18. Damage public property	0.19	0.33	0.43	0.20	1.14	240	1.74***	0.68
19. Deliberately hit myself	0.20	0.22	0.28	0.20	0.91	191	1.12	0.75
20. Sex without contraceptives	0.05	0.16	0.72	1.04	1.97	414	1.97	1.97
21. Purposely cut myself	0.09	0.11	0.18	0.12	0.51	107	0.37	0.62
22. Last minute assignments	2.37	2.74	3.26	3.17	11.54	2411	12.01	11.17
23. Hit someone with a weapon	0.28	0.28	0.26	0.24	1.07	224	1.30	0.88

SIBRA Item	Age Range 12-14	14-16	16-18	18	Overall M	Total Frequency	Male M	Female M
24. Rock or mountain climbing	0.22	0.31	0.47	0.47	1.48	310	1.72	1.29
25. Carve designs into my skin	0.04	0.05	0.02	0.04	0.16	33	0.18	0.14
26. Sex without STD protection	0.06	0.27	0.82	1.30	2.47	519	2.26	2.64
27. Play non-contact team sports	2.10	2.13	2.09	1.72	7.94	1643	8.89	7.19
28. Abrasive substance on skin	0	0	0.02	0.02	0	0	0	0
29. Fail to do assignments	1.62	1.81	2.03	1.60	7.07	1484	8.72***	5.78
30. Slap someone	0.52	0.53	0.58	0.54	2.16	453	2.35	2.01
31. Break my own bones	0	.00	0	0	0.01	1	0	0.01
32. Not studying hard enough	2.14	2.27	2.65	2.49	9.56	1997	10.88**	8.53
33. Punch or hit someone	0.72	0.76	0.84	0.61	2.93	616	4.60***	1.64
34. Smoke marijuana	0.22	0.72	1.39	1.48	3.84	806	4.28	3.49
35. Purposely bang my head	0.18	0.18	0.18	0.17	0.72	151	0.89	0.58
36. Sex w/ a variety of partners	0.01	0.14	0.45	0.76	1.36	285	1.63	1.16

SIBRA Item	Age Range				Overall M	Total Frequency	Male M	Female M
	12-14	14-16	16-18	18				
37. Snow or water skiing	0.80	0.95	1.04	0.92	3.74	786	3.39	4.02
38. Mix drugs and alcohol	0.09	0.48	0.82	1.01	2.44	513	2.75	2.20
39. Get into a fight or argument	2.14	2.24	2.52	2.60	9.46	1958	9.23	9.64
40. Sexual activities w/o consent	0.03	0.05	0.10	0.09	0.28	58	0.12	0.40
41. Play drinking games	0.06	0.38	1.28	2.04	3.77	792	3.89	3.68
42. Interfere with wound healing	0.42	0.36	0.38	0.38	1.55	323	1.78	1.38
43. Sex with someone I just met	0.01	0.07	0.31	0.66	1.05	220	1.44**	0.75
44. Use drugs	0.01	0.20	0.41	0.60	1.23	258	1.36	1.13
45. Bite fingernails, cause pain	0.42	0.45	0.45	0.41	1.75	367	1.88	1.64

*p ≤ .05, **p ≤ .01, ***p ≤ .001.

Table 2

Means Scores for the SIBRA Positive Consequences, Negative Consequences, and Reward/Risk Ratio

	Positive Consequences		Negative Consequences		Reward/Risk Ratio	
SIBRA Item	M	SD	M	SD		Rank
1. Play individual sports	5.79	1.58	2.28	1.65	3.98	1
2. Miss class or work	2.19	1.35	4.72	1.82	0.59	15
3. Any self-harmful behavior	1.46	1.00	5.46	2.13	0.40	32
4. Grab or push someone	1.69	1.06	4.98	1.96	0.44	26
5. Leave w/ someone I just met	2.65	1.75	4.53	2.14	0.91	8
6. Pull out my hair or eyelashes	1.34	1.01	4.86	2.40	0.49	22
7. Drive after drinking alcohol	1.37	0.99	5.67	2.01	0.35	37
8. Make a scene in public	1.93	1.22	4.45	1.97	0.63	14
9. Scratch self, leave marks	1.23	0.75	5.31	2.22	0.36	36
10. Drink 5+ alcoholic drinks	2.72	1.90	4.60	2.07	0.92	7
11. Not study for an exam	1.92	1.26	4.78	1.87	0.55	17
12. Drink alcohol too quickly	2.13	1.48	4.90	1.96	0.63	11
13. Bite self and leave a mark	1.23	0.71	5.06	2.30	0.38	34
14. Bruising behavior	1.43	0.97	5.03	2.24	0.44	28
15. Disturb the peace	1.93	1.21	4.44	2.04	0.64	10
16. Eat toxic or sharp substances	1.16	0.79	5.87	2.17	0.31	44
17. Intentionally burn myself	1.19	0.76	5.62	2.18	0.33	41

SIBRA Item	Positive Consequences		Negative Consequences		Reward/Risk Ratio	
	M	SD	M	SD		Rank
18. Damage public property	1.57	1.04	5.12	2.05	0.43	30
19. Deliberately hit myself	1.27	0.84	5.15	2.22	0.39	33
20. Sex without contraceptives	1.99	1.60	5.36	2.07	0.50	20
21. Purposely cut myself	1.17	0.76	5.73	2.22	0.32	43
22. Last minute assignments	2.28	1.40	4.33	1.72	0.69	9
23. Hit someone with a weapon	1.34	0.90	5.56	2.08	0.34	39
24. Rock or mountain climbing	4.75	2.07	2.83	1.70	2.55	4
25. Carve designs into my skin	1.19	0.72	5.62	3.40	0.33	40
26. Sex without STD protection	1.79	1.56	5.37	2.14	0.49	23
27. Play non-contact team sports	5.11	1.98	2.02	1.48	3.72	2
28. Abrasive substance on skin	1.16	0.76	5.59	2.18	0.32	42
29. Fail to do assignments	1.69	1.02	4.72	1.92	0.50	21
30. Slap someone	1.74	1.08	4.93	1.92	0.46	25
31. Break my own bones	1.09	0.61	5.95	2.11	0.29	45
32. Not studying hard enough	1.85	1.16	4.82	1.75	0.53	19
33. Punch or hit someone	1.70	1.20	5.26	1.98	0.43	29
34. Smoke marijuana	2.46	1.93	4.25	2.35	1.12	6
35. Purposely bang my head	1.24	0.82	5.16	2.20	0.38	35
36. Sex w/ a variety of partners	1.99	1.68	5.32	2.13	0.55	18
37. Snow or water skiing	4.85	2.17	2.32	1.52	3.15	3

SIBRA Item	Positive Consequences		Negative Consequences		Reward/Risk Ratio	
	M	SD	M	SD		Rank
38. Mix drugs and alcohol	1.86	1.47	5.21	2.16	0.57	16
39. Get into a fight or argument	2.00	1.24	4.41	1.83	0.63	13
40. Sexual activities w/o consent	1.22	0.87	5.89	2.12	0.34	38
41. Play drinking games	3.19	2.01	3.84	2.12	1.44	5
42. Interfere with wound healing	1.37	0.87	4.65	2.13	0.44	27
43. Sex w/ someone I just met	2.04	1.60	5.18	2.17	0.63	12
44. Use drugs	1.61	1.34	5.41	2.22	0.48	24
45. Bite fingernails, cause pain	1.33	0.98	5.00	2.19	0.42	31

Table 3

Correlations between the Eysenck Impulsiveness Scale and SIBRA Item Totals

SIBRA Item	EIS Subscale			
	I	V	E	Total
1. Play individual sports	.03	.20**	.01	.14
2. Miss class or work	.00	-.05	.20**	.00
3. Any self-harmful behavior	.13	.09	-.01	.07
4. Grab or push someone	.21**	.09	-.09	.13
5. Leave with someone I just met	.09	.28**	-.07	.17*
6. Pull out my hair or eyelashes	.09	-.05	.03	.05
7. Drive after drinking alcohol	.05	.21**	-.01	.07
8. Make a scene in public	.28**	.01	.05	.17*
9. scratch self, leave marks	.05	.16*	.04	.11
10. Drink 5+ alcoholic drinks	.27**	.34**	.00	.28**
11. Not studying for an exam	.36**	.15*	.08	.31**
12. Drink alcohol too quickly	.25**	.19**	.03	.21**
13. Bite self and leave a mark	.01	.15*	.01	.11
14. Bruising behavior	.05	.17*	-.09	.07
15. Disturb the peace	.22**	.05	-.08	.13
16. Eat toxic or sharp substances	-.07	.05	-.05	.04
17. Intentionally burn myself	-.01	.16*	-.09	.03
18. Damage public property	.17*	.25**	-.02	.22**

SIBRA Item	EIS Subscale			
	I	V	E	Total
19. Deliberately hit myself	.04	.05	.04	.07
20. Sex without contraceptives	.07	.05	-.01	.04
21. Purposely cut myself	.13	.08	.08	.14
22. Last minute assignments	.25**	.13	.19**	.30**
23. Hit someone with a weapon	.15*	-.08	.03	.07
24. Rock or mountain climbing	.05	.36**	.01	.22**
25. Carve designs into my skin	.02	.11	.01	.04
26. Sex without STD protection	.06	.09	.01	.11
27. Play non-contact team sports	.12	.32**	.05	.26**
28. Abrasive substance on skin	.00	.00	.00	.00
29. Fail to do assignments	.25**	.09	.07	.20**
30. Slap someone	.27**	.06	.03	.19*
31. Break my own bones	.05	-.03	.03	.05
32. Not studying hard enough	.28**	.12	.15*	.31**
33. Punch or hit someone	.13	.13	-.09	.12
34. Smoke marijuana	.13	.24**	.02	.19*
35. Purposely bang my head	.02	.07	.01	.07
36. Sex with a variety of partners	.08	.06	.01	.09
37. Snow or water skiing	.12	.30**	.01	.19*
38. Mix drugs and alcohol	.12	.21**	-.03	.14

SIBRA Item	EIS Subscale			
	I	V	E	Total
39. Get into a fight or argument	.02	.10	.12	.09
40. Sexual activities without consent	.17*	.13	.12	.23**
41. Play drinking games	.24**	.36**	-.01	.29**
42. Interfere with wound healing	.17*	.05	.13	.17*
43. Sex with someone I just met	.02	.12	-.11	.03
44. Use drugs	.08	.18*	-.03	.10
45. Bite fingernails, cause pain	.00	.09	.08	.11

*p ≤ .05, **p ≤ .01.

Table 4

Correlations between SIBRA Item Totals, Positive Ratings, Negative Ratings, and Reward/Risk Ratio

SIBRA Item	Positive Rating	Negative Rating	Reward/Risk Ratio
1. Play individual sports	.30**	-.10	.18**
2. Miss class or work	.14	-.00	.08
3. Any self-harmful behavior	.28**	-.02	.09
4. Grab or push someone	.31**	-.24**	.27**
5. Leave with someone I just met	.27**	-.24**	.26**
6. Pull out my hair or eyelashes	.34**	-.25**	.37**
7. Drive after drinking alcohol	.19**	-.15*	.07
8. Make a scene in public	.51**	-.25**	.42**
9. scratch self, leave marks	.05	-.14	.06
10. Drink 5+ alcoholic drinks	.52**	-.34**	.38**
11. Not studying for an exam	.11	-.12	.14*
12. Drink alcohol too quickly	.37*	-.14*	.21**
13. Bite self and leave a mark	.00	-.01	-.04
14. Bruising behavior	.35**	-.12	.30**
15. Disturb the peace	.40**	-.18**	.32**
16. Eat toxic or sharp substances	.05	.05	-.04
17. Intentionally burn myself	.15*	-.14*	.18**
18. Damage public property	.30**	-.21**	.31**

SIBRA Item	Positive Rating	Negative Rating	Reward/Risk Ratio
19. Deliberately hit myself	.20**	-.15*	.22**
20. Sex without contraceptives	.36**	-.12	.30**
21. Purposely cut myself	.09	-.01	.01
22. Last minute assignments	.18	-.03	.14
23. Hit someone with a weapon	.14*	-.17*	.18*
24. Rock or mountain climbing	.34**	-.03	.23**
25. Carve designs into my skin	.10	.03	.04
26. Sex without STD protection	.24**	-.12	.19**
27. Play non-contact team sports	.32**	-.11	.28**
28. Abrasive substance on skin	.00	.00	.00
29. Fail to do assignments	.13	-.08	.06
30. Slap someone	.12*	-.16*	.17
31. Break my own bones	-.01	-.07	-.01
32. Not studying hard enough	.10	-.03	.11
33. Punch or hit someone	.31**	-.15*	.24**
34. Smoke marijuana	.56**	-.38**	.47**
35. Purposely bang my head	.11	-.11	.11
36. Sex with a variety of partners	.42**	-.20**	.44**
37. Snow or water skiing	.37**	-.09	.27**
38. Mix drugs and alcohol	.49**	-.34**	.41**

SIBRA Item	Positive Rating	Negative Rating	Reward/Risk Ratio
39. Get into a fight or argument	.24**	-.03	.08
40. sexual activities without consent	.02	-.06	-.06
41. Play drinking games	.56**	-.48**	.40**
42. Interfere with wound healing	.25**	-.19**	.13
43. Sex with someone I just met	.36**	-.23**	.37**
44. Use drugs	.44**	-.31**	.42**
45. Bite fingernails, cause pain	.27**	-.15*	.27**

*p ≤ .05, **p ≤ .01.

Please indicate how many times you have participated in each of the activities listed below, between each period of time in your life (12-14yrs old, 14-16 yrs old, 16-18 yrs old, and 18yrs to current).

FREQUENCY OF INVOLVEMENT
0 times 1 time 2 times 3 times 4+ times

AGE RANGE

1. Playing individual sports……..12-14 ___ 14-16___ 16-18___ 18+___
2. Missing class or work…….. 12-14___ 14-16___ 16-18___ 18+___
3. Engaging in any behavior that
   is deliberately harmful to my body……..12-14___ 14-16___ 16-18___ 18+___
4. Grabbing, pushing, or shoving someone……. 12-14___ 14-16___ 16-18___ 18+___
5. Leaving a social event with someone
   I have just met……..12-14___ 14-16___ 16-18___ 18+___
6. Intentionally pulling out my hair or eyelashes…..12-14___ 14-16___ 16-18___ 18+___
7. Driving after drinking alcohol……..12-14___ 14-16___ 16-18___ 18+___
8. Making a scene in public……..12-14___ 14-16___ 16-18___ 18+___
9. Intentionally scratch myself with fingernails
   or other objects hard enough to leave marks
   or cause bleeding……..12-14___ 14-16___ 16-18___ 18+___
10. Drinking more than 5 alcoholic drinks……12-14___ 14-16___ 16-18___ 18+___
11. Not studying for an exam or quiz……12-14___ 14-16___ 16-18___ 18+___
12. Drinking alcohol too quickly……..12-14___ 14-16___ 16-18___ 18+___
13. Deliberately bite myself hard enough to
    leave a mark……..12-14___ 14-16___ 16-18___ 18+___
14. Intentionally engaging in a behavior that
    produces bruising……..12-14___ 14-16___ 16-18___ 18+___
15. Disturbing the peace……..12-14___ 14-16___ 16-18___ 18+__
16. Purposely eat toxic substances or
    sharp objects……..12-14___ 14-16___ 16-18___ 18+___
17. Intentionally burn myself with a lit cigarette,
    match or other object…… ……..12-14___ 14-16___ 16-18___ 18+___
18. Damaging/destroying public property……12-14___ 14-16___ 16-18___ 18+___
19. Deliberately hit myself……..12-14___ 14-16___ 16-18___ 18+___
20. Sex without protection against pregnancy…….12-14___ 14-16___ 16-18___ 18+___

AGE RANGE

21. Purposely cut or gouge myself with a razor blade, broken glass, or other object……12-14___ 14-16___ 16-18___ 18+__
22. Leaving tasks or assignments for the last minute….12-14___ 14-16___ 16-18___ 18+__
23. Hitting someone with a weapon or object……..12-14___ 14-16___ 16-18___18+__
24. Rock or mountain climbing……...12-14___ 14-16___ 16-18___ 18+__
25. Carve words or pictures into my skin……..12-14___ 14-16___ 16-18___ 18+__
26. Sex without protection against sexually transmitted diseases……12-14___ 14-16___ 16-18___ 18+__
27. Playing non-contact team sports……12-14___ 14-16___ 16-18___ 18+__
28. Rub, drip or scrub my skin with an abrasive substance (i.e. bleach or acid)……12-14___ 14-16___ 16-18___ 18+__
29. Failing to do assignments…… 12-14___ 14-16___ 16-18___ 18+__
30. Slapping someone……..12-14___ 14-16___ 16-18___ 18+__
31. Intentionally break my own bones……...12-14___ 14-16___ 16-18___ 18+__
32. Not studying or working hard enough……12-14___ 14-16___ 16-18___18+__
33. Punching or hitting someone with a fist……12-14___ 14-16___ 16-18___ 18+__
34. Smoking marijuana……12-14___ 14-16___ 16-18___ 18+__

35. Purposely bang my head……..12-14___ 14-16___ 16-18___ 18+__
36. Sex with a variety of partners……12-14___ 14-16___ 16-18___ 18+__
37. Snow or water skiing……..12-14___ 14-16___ 16-18___ 18+___
38. Mixing drugs and alcohol……...12-14___ 14-16___ 16-18___ 18+___
39. Getting into a fight or argument……12-14___ 14-16___ 16-18___ 18+___
40. Involvement in sexual activities without my consent……..12-14___ 14-16___ 16-18___ 18+___
41. Playing drinking games……12-14___ 14-16___ 16-18___ 18+___
42. Interfere with wound healing……12-14___ 14-16___ 16-18___ 18+___
43. Sex with someone I have just met or don't know well……..12-14___ 14-16___ 16-18___ 18+___
44. Trying/using drugs other than alcohol or marijuana……..12-14___ 14-16___ 16-18___ 18+___
45. Bitten my fingernails enough to cause bleeding or pain……12-14___ 14-16___ 16-18___ 18+___

On a scale of 1 (not likely at all) to 7 (extremely likely) HOW LIKELY IS IT THAT YOU WOULD EXPERIENCE SOME NEGATIVE CONSEQUENCE (e.g., become sick, be injured, embarrassed, lose money, suffer legal consequences, fail a class, or feel bad about yourself, etc.) if you engaged in these activities?

NEGATIVE CONSEQUENCES

	Not at all Likely			Moderately Likely			Extremely Likely
1. Playing individual sports … ……..1	2	3	4	5	6	7	
2. Missing class or work……..1	2	3	4	5	6	7	
3. Engaging in any behavior that is deliberately harmful to my body……..1	2	3	4	5	6	7	
4. Grabbing, pushing, or shoving someone ……..1	2	3	4	5	6	7	
5. Leaving a social event with someone I have just met……..1	2	3	4	5	6	7	
6. Intentionally pulling out my hair or eyelashes……..1	2	3	4	5	6	7	
7. Driving after drinking alcohol……..1	2	3	4	5	6	7	
8. Making a scene in public……..1	2	3	4	5	6	7	
9. Intentionally scratch myself with fingernails or other objects hard enough to leave marks or cause bleeding……..1	2	3	4	5	6	7	
10. Drinking more than 5 alcoholic drinks……..1	2	3	4	5	6	7	
11. Not studying for an exam or quiz……..1	2	3	4	5	6	7	
12. Drinking alcohol too quickly……..1	2	3	4	5	6	7	
13. Deliberately bite myself hard enough to leave a mark……..1	2	3	4	5	6	7	
14. Intentionally engaging in a behavior that produces bruising……..1	2	3	4	5	6	7	
15. Disturbing the peace……..1	2	3	4	5	6	7	
16. Purposely eat toxic substances or sharp objects……..1	2	3	4	5	6	7	
17. Intentionally burn myself with a lit cigarette, match or other object……..1	2	3	4	5	6	7	
18. Damaging/destroying public property……..1	2	3	4	5	6	7	
19. Deliberately hit myself……..1	2	3	4	5	6	7	
20. Sex without protection against pregnancy……..1	2	3	4	5	6	7	
21. Purposely cut or gouge myself with a razor blade, broken glass, or other object……..1	2	3	4	5	6	7	
22. Leaving tasks or assignments for the last minute……..1	2	3	4	5	6	7	

NEGATIVE CONSEQUENCES

	Not at all Likely			Moderately Likely			Extremely Likely
23. Hitting someone with a weapon or object……	1	2	3	4	5	6	7
24. Rock or mountain climbing……..	1	2	3	4	5	6	7
25. Carve words or pictures into my skin……	1	2	3	4	5	6	7
26. Sex without protection against sexually transmitted diseases……..	1	2	3	4	5	6	7
27. Playing non-contact team sports……	1	2	3	4	5	6	7
28. Rub, drip or scrub my skin with an abrasive substance (i.e. bleach or acid)……	1	2	3	4	5	6	7
29. Failing to do assignments……...	1	2	3	4	5	6	7
30. Slapping someone……...	1	2	3	4	5	6	7
31. Intentionally break my own bones……..	1	2	3	4	5	6	7
32. Not studying or working hard enough……	1	2	3	4	5	6	7
33. Punching or hitting someone with a fist……	1	2	3	4	5	6	7
34. Smoking marijuana……...	1	2	3	4	5	6	7
35. Purposely bang my head……	1	2	3	4	5	6	7
36. Sex with a variety of partners……	1	2	3	4	5	6	7
37. Snow or water skiing……	1	2	3	4	5	6	7
38. Mixing drugs and alcohol……	1	2	3	4	5	6	7
39. Getting into a fight or argument……..	1	2	3	4	5	6	7
40. Involvement in sexual activities without my consent……	1	2	3	4	5	6	7
41. Playing drinking games……	1	2	3	4	5	6	7
42. Interfere with wound healing…….....	1	2	3	4	5	6	7
43. Sex with someone I have just met or don't know well……	1	2	3	4	5	6	7
44. Trying/using drugs other than alcohol or marijuana ……	1	2	3	4	5	6	7
45. Bitten my fingernails enough to cause bleeding or pain……	1	2	3	4	5	6	7

On a scale of 1 (not likely at all) to 7 (extremely likely) HOW LIKELY IS IT THAT YOU WOULD EXPERIENCE SOME POSITIVE CONSEQUENCE (e.g., pleasure, win money, feel good about yourself, etc.) if you were to engage in these activities?

		POSITIVE CONSEQUENCES						
		Not at all Likely			Moderately Likely			Extremely Likely
1.	Playing individual sports … ……..1	2	3	4	5	6	7	
2.	Missing class or work……..1	2	3	4	5	6	7	
3.	Engaging in any behavior that is deliberately harmful to my body……..1	2	3	4	5	6	7	
4.	Grabbing, pushing, or shoving someone ……..1	2	3	4	5	6	7	
5.	Leaving a social event with someone I have just met……..1	2	3	4	5	6	7	
6.	Intentionally pulling out my hair or eyelashes……..1	2	3	4	5	6	7	
7.	Driving after drinking alcohol……..1	2	3	4	5	6	7	
8.	Making a scene in public……..1	2	3	4	5	6	7	
9.	Intentionally scratch myself with fingernails or other objects hard enough to leave marks or cause bleeding……..1	2	3	4	5	6	7	
10.	Drinking more than 5 alcoholic drinks……..1	2	3	4	5	6	7	
11.	Not studying for an exam or quiz……..1	2	3	4	5	6	7	
12.	Drinking alcohol too quickly……..1	2	3	4	5	6	7	
13.	Deliberately bite myself hard enough to leave a mark……..1	2	3	4	5	6	7	
14.	Intentionally engaging in a behavior that produces bruising……..1	2	3	4	5	6	7	
15.	Disturbing the peace……..1	2	3	4	5	6	7	
16.	Purposely eat toxic substances or sharp objects……..1	2	3	4	5	6	7	
17.	Intentionally burn myself with a lit cigarette, match or other object……..1	2	3	4	5	6	7	
18.	Damaging/destroying public property……..1	2	3	4	5	6	7	
19.	Deliberately hit myself……..1	2	3	4	5	6	7	
20.	Sex without protection against pregnancy……..1	2	3	4	5	6	7	
21.	Purposely cut or gouge myself with a razor blade, broken glass, or other object……..1	2	3	4	5	6	7	
22.	Leaving tasks or assignments for the last minute……..1	2	3	4	5	6	7	

POSITIVE CONSEQUENCES

	Not at all Likely			Moderately Likely			Extremely Likely
23. Hitting someone with a weapon or object	1	2	3	4	5	6	7
24. Rock or mountain climbing	1	2	3	4	5	6	7
25. Carve words or pictures into my skin	1	2	3	4	5	6	7
26. Sex without protection against sexually transmitted diseases	1	2	3	4	5	6	7
27. Playing non-contact team sports	1	2	3	4	5	6	7
28. Rub, drip or scrub my skin with an abrasive substance (i.e. bleach or acid)	1	2	3	4	5	6	7
29. Failing to do assignments	1	2	3	4	5	6	7
30. Slapping someone	1	2	3	4	5	6	7
31. Intentionally break my own bones	1	2	3	4	5	6	7
32. Not studying or working hard enough	1	2	3	4	5	6	7
33. Punching or hitting someone with a fist	1	2	3	4	5	6	7
34. Smoking marijuana	1	2	3	4	5	6	7
35. Purposely bang my head	1	2	3	4	5	6	7
36. Sex with a variety of partners	1	2	3	4	5	6	7
37. Snow or water skiing	1	2	3	4	5	6	7
38. Mixing drugs and alcohol	1	2	3	4	5	6	7
39. Getting into a fight or argument	1	2	3	4	5	6	7
40. Involvement in sexual activities without my consent	1	2	3	4	5	6	7
41. Playing drinking games	1	2	3	4	5	6	7
42. Interfere with wound healing	1	2	3	4	5	6	7
43. Sex with someone I have just met or don't know well	1	2	3	4	5	6	7
44. Trying/using drugs other than alcohol or marijuana	1	2	3	4	5	6	7
45. Bitten my fingernails enough to cause bleeding or pain	1	2	3	4	5	6	7

Please answer each question by putting a circle around the 'YES' or 'NO' following the question.

1.	Would you enjoy water skiing?	Yes	No
2.	Usually do you prefer to stick to brands you know are reliable, rather than trying new ones on the chance of finding something better?	Yes	No
3.	Would you feel sorry for a lonely stranger?	Yes	No
4.	Do you enjoy taking risks?	Yes	No
5.	Do you often get emotionally involved with your friends' problems?	Yes	No
6.	Would you enjoy parachute jumping?	Yes	No
7.	Do you often buy things on impulse?	Yes	No
8.	Do unhappy people who are sorry for themselves irritate you?	Yes	No
9.	Do you generally do and say things without stopping to think?	Yes	No
10	Are you inclined to get nervous when others around you seem to be nervous?	Yes	No
11.	Do you often get into a jam because you do things without thinking?	Yes	No
12.	Do you think hitchhiking is too dangerous a way to travel?	Yes	No
13.	Do you find it silly for people to cry out of happiness?	Yes	No
14.	Do you like diving off the high board?	Yes	No
15.	Do people you are with have a strong influence on your moods?	Yes	No
16.	Are you an impulsive person?	Yes	No
17.	Do you welcome new and exciting experiences and sensations, even if they are a little frightening and unconventional?	Yes	No
18.	Does it affect you very much when one of your friends seems upset?	Yes	No
19.	Do you usually think carefully before doing anything?	Yes	No
20.	Would you like to learn to fly an airplane?	Yes	No
21.	Do you ever get deeply involved with the feelings of a character in a film, play or novel?	Yes	No
22.	Do you often do things on the spur of the moment?	Yes	No
23.	Do you get very upset when you see someone cry?	Yes	No
24.	Do you sometimes find someone else's laughter catching?	Yes	No
25.	Do you mostly speak without thinking things out?	Yes	No

26.	Do you often get involved in things you later wish you could get out of?	Yes	No
27.	Do you get so carried away by new and exciting ideas that you never think of the possible snags?	Yes	No
28.	Do you find it hard to understand people who risk their necks climbing mountains?	Yes	No
29.	Can you make decisions without worrying about other peoples' feelings?	Yes	No
30.	Do you sometimes like doing things that are a bit frightening?	Yes	No
31.	Do you need to use a lot of self-control to keep out of trouble?	Yes	No
32.	Do you become more irritated than sympathetic when you see someone cry?	Yes	No
33.	Would you agree that almost everything enjoyable is illegal or immoral?	Yes	No
34.	Generally do you prefer to enter cold water gradually, rather than diving or jumping straight in?	Yes	No
35.	Are you often surprised at people's reactions to what you say or do?	Yes	No
36.	Would you enjoy the sensation of skiing very fast down a high mountain slope?	Yes	No
37.	Do you like watching people open presents?	Yes	No
38.	Do you think an evening out is more successful if it is unplanned and/or arranged at the last moment?	Yes	No
39.	Would you like to go scuba diving?	Yes	No
40.	Would you find it hard to break bad news to someone?	Yes	No
41.	Would you enjoy fast driving?	Yes	No
42.	Do you usually work quickly, without bothering to check?	Yes	No
43.	Do you often change your interests?	Yes	No
44.	Before making up your mind, do you consider all the advantages and disadvantages?	Yes	No
45.	Can you get very interested in your friends' problems?	Yes	No
46.	Would you like to go exploring underground caves and tunnels?	Yes	No
47.	Would you be turned off by a job involving quite a bit of danger?	Yes	No
48.	Do you prefer to sleep on it before making decisions?	Yes	No
49.	When people shout at you, do you shout back?	Yes	No
50.	Do you feel sorry for very shy people?	Yes	No
51.	Are you happy when you are with a cheerful group and sad when the others are		

	glum?	Yes	No
52.	Do you usually make up your mind quickly?	Yes	No
53.	Can you imagine what it must be like to be lonely?	Yes	No
54.	Does it worry you when others are worrying and panicky?	Yes	No