

2010

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## Recommended Citation

Williams, Danielle (2010). Hurting to Cope: Self-Injurious Behavior as an Escape from Self-Focus. *Undergraduate Review*, 6, 120-129.  
Available at: [http://vc.bridgew.edu/undergrad\\_rev/vol6/iss1/23](http://vc.bridgew.edu/undergrad_rev/vol6/iss1/23)

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# Hurting to Cope: Self-Injurious Behavior as an Escape from Self-Focus

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Danielle graduated from Bridgewater State College in January 2010, earning a Bachelor's of Science

in Psychology. Her research paper is a summary of her Honor's thesis and has been presented at the Association for Psychological Science

Conference. She would like to thank the psychology research lab at Bridgewater State College, the Adrian Tinsley Program, Joanne Michaud and, of course, her mentor Dr. Spievak. Danielle is pursuing graduate school in counseling psychology and plans to continue research.

**S**elf-injurious behavior (SIB) is a prevalent problem in today's society and is estimated to affect 4% of the general population (Darche, 1990; Nock & Prinstein, 2004). SIB has been described as a form of coping (Fliege et al., 2006) and a means of escaping negative feelings (Barrera, Violo & Graver, 2007; Nock & Prinstein, 2004), however it has not been examined within the framework of Baumeister's escape-style-coping theory (Baumeister, 1991a; 1991b). In addition, although escape-style-coping theory has been linked with self-focused temperament (Spievak, 2003), SIB has not been examined in relation to chronic self-focus. It was hypothesized that those individuals who reported self-injury would also be high in self-focus and report other related escape-style-coping behaviors. The results of two studies supported a positive correlation between self-injury and self-focus and related escape-style-coping behaviors.

## Introduction

Definitions of self-injurious behavior (SIB) vary slightly, but it is generally characterized as deliberate damage to body tissue without conscious suicidal intent. Prevalence rates of SIB may be as high as 4% in the general population, are as high as 21%-66% in clinical samples (Nock & Prinstein, 2004; Darche, 1990), and at least one self-injury incident was reported by 17% of college students in one recent study (Whitlock, Echenrode & Silverman, 2006). Although the definition specifies non-fatal injuries and self-injury is most often an isolated behavior that does not lead to suicide, there is a complex relationship between suicide and self-injury. For instance, one study found that 6.9% of a clinical sample that displayed self-harm behaviors later committed suicide (Hawton & Harriss, 2006). In another study, the authors found that about 1% of individuals who had received emergency care for SIB had committed suicide one year later (Howson, Yates & Hatcher, 2008). Indications that SIB may indeed suggest a risk for later suicidal behavior make further study even more important.

The focus of the current research was to explicate the dispositional and situational vulnerabilities that predict SIB in the general population and investigate the often mentioned, but under researched function as a coping strategy. Until recently, research has been primarily descriptive and focused on special populations. For example, early research on SIB involved mostly mentally retarded, autistic (Barrera, Violo & Graver, 2007), and other disabled populations (Fliege, Kocalevent, Walter, Beck, Gratz & Gutierrez,

2006; Nock & Prinstein, 2004; Weierich & Nock, 2008). In addition, these studies generally employed case study methods (Barrera, Violo & Graver, 2007; Kress & Hoffman, 2008) or examined intervention techniques (Connors, 1996). The researchers often reported that SIB was more common when patients were under stress (Anderson & Ernst, 1994) and reexperiencing past traumas (Weierich & Nock, 2008). While not directly tested, one common supposition in the clinical literature is that SIB is used as a coping strategy. Nock & Prinstein's (2004) research illustrated this concept through analyzing a comprehensive intake evaluation completed by 108 adolescents referred to a psychiatric inpatient unit for self-injurious thoughts or behaviors. Results revealed that participants reported engaging in SIB to cope with emotional difficulties. Other archival and survey studies have offered insight into possible dispositional and situational correlates and have documented common SIB behaviors. Fliege and colleagues (2006), who studied 361 mentally and behaviorally disordered adults, found that cutting was the most commonly reported form of SIB. In two studies (Nock, 2009; Weierich & Nock, 2008) researchers reported that individuals with a history of childhood abuse were more likely to engage in self-harm and in Weierich and Nock's (2008) study of 84 sexually abused adolescents from psychiatric facilities, those who suffered from symptoms of posttraumatic stress disorder (PTSD) were more likely to engage in self-harm. Again, the work described above focused on special populations and the coping hypothesis was not directly tested in these studies, but the authors often suggested that the abuse survivors might have used SIB as a coping mechanism. To obtain a clearer picture of those who engage in SIB for coping purposes, it is important to examine how the research on coping and SIB might converge to predict the development of SIB as a learned coping strategy.

### **Coping Style**

Much of the literature reviewed thus far has indicated a possibility that SIB serves as a coping mechanism. Additionally, in describing SIB, several authors have indirectly alluded to a style of coping that is closely aligned with mental or behavioral disengagement. This coping style is known as escape coping and is defined as emotion-focused efforts aimed at reducing the negative feelings associated with a stressful condition (Latack, 1986). Escape coping is effective in relieving negative feelings associated with anxiety, disappointment, dejection, and depression in the short term, but research concerning chronic escape-style-coping indicates long-term negative outcomes. Chronic escape-style-coping has been found in association with inferior physical and psychological health (Penley, Tomaka, & Wiebe, 2002; Rioli & Savick, 2003) including poor illness recovery outcomes (Lehto, Ojanen, Dyba, Aromaa & Kellokumpu-Lehtinen, 2006) and symptoms of workplace

burnout and depersonalized manner (Rioli & Savick, 2003). Escape coping may be of interest in researching SIB because, when attentional resources are used to attend to physical sensations of the body, the processing of other disturbing information is theoretically reduced, resulting in a feeling of relief.

Two recent studies suggested that SIB may be used to cope with emotional difficulties (Gratz, 2006) and to stop negative feelings (Nock & Prinstein, 2004), however a direct link with escape-style coping has not been investigated. Research monitoring physiological responses has also provided some evidence for SIB functioning as a form of escape-style of coping. For example, Nock and Mendes (2008) found that self-injurers displayed low tolerance for distress in completing a difficult task and Barrera, Violo and Graver (2007) found patterns in physiological arousal where heart rate was highest pre-SIB and dropped during the SIB episode or seconds after. In both studies, authors suggested that self-injurers might use SIB to cope with, or escape from, the hyperarousal they may feel in meeting everyday challenges. Engaging in SIB forces individuals to redirect their attention, and may create a temporary escape from distress or difficulties. This type of narrowed focus is worthy of further examination and has been discussed by social psychologist Roy Baumeister in his escape theory.

### **Escape Theory**

Baumeister (1989, 1991a, 1991b, 1997) has conducted extensive research concerning narrowed focus and suggests that aversive self-focused attention often assumes the role of the "stressful condition" pertinent to escape coping. Self-focused attention has been defined as an awareness of self-referential, internally generated information as opposed to externally generated information, derived from sensation and perception (Ingram, 1990). Directing attention to the self is adaptive as it aids in self-evaluation allowing individuals to adjust behavior to meet social standards, however, self-focus can also be distracting, inhibiting and defeating (Duval and Wicklund, 1972). In Baumeister's escape theory it is suggested that individuals escape aversive self-awareness through narrowing focus to a meaningless portion of the self-concept. When focus is narrowed to current sensations and body movements, awareness shrinks to the immediate time and all other thoughts are excluded, preventing meaningful thought about the self (Baumeister, 1991a; 1991b; 1995; Baumeister & Boden, 1994). The idea is that the self is minimized to its most basic element. "Escaping from the self is, more precisely, an escape from identity into body" (Baumeister, 1991b, p 17). When individuals are faced with situations they perceive to be irreversible and uncontrollable, they may cope with

mental disengagement to remove the painful reality from awareness (Mikulincer, 1996). Although SIB has not been directly investigated as an escape behavior, a connection could be evidenced linking SIB with other behaviors identified as escape-style coping mechanisms.

**Escape Behaviors**

Studies have indicated that individuals may use many methods to escape self-focus. Substance use (Aloia, Williams, Drew & Spievak, 2009; Hull & Young, 1983a; Spievak, 2003), binge eating (Heatherton & Baumeister, 1991), and compulsive physical exercise (Spievak, 2003) have been correlationally and experimentally linked to both escape-style coping and self-focus. In addition, Baumeister (1991b) suggests that sexual masochism provides an outlet of escape for some and research on gambling has shown that problem gambling was comorbid with other escape behaviors such as heavy drinking, binge eating, and tobacco and marijuana use (Engwall, Hunter & Steinberg, 2004). SIB has been indirectly linked with many of these escape mechanisms, most clearly with alcohol abuse (O’Loughlin and Sherwood, 2005) and masochism, which includes elements of self-harm. Additionally, suicide, the ultimate escape behavior (Baumeister, 1990), is sometimes seen in connection with SIB (Hawton & Harriss, 2006; Howson, Yates & Hatcher, 2008).

Baumeister (1991b) suggests that individuals reduce self-awareness by narrowing focus to physical sensations and each of the behaviors described above appear to function just as Baumeister described. SIB could certainly compel attentional

focus on immediate behaviors and sensations, thus potentially qualifying it as an escape-style-coping mechanism. Though each of the described behaviors could be described as self-injurious, SIB has not been investigated in conjunction with escape-style coping mechanisms or self-focused attention. Research on time perspective, however, suggests a connection between the ruminative behaviors in self-focused attention and the types of negative health behaviors similar to SIB.

**Time Perspective**

Time perspective (TP) is defined as cognitive process partitioning human experience focused predominantly on one of the three time zones (i.e., past, present, or future) (Holman & Silver, 1998; Zimbardo, 1999). Both present TP and past TP have been seen in association with many correlates of interest to this study, but there is little evidence that a connection between SIB and TP has been explicitly studied. Evidence for a link exists, however. For instance, one study (Swanston, Nunn, Oates, Tebbutt, & O’Toole, 1999) employed a sample of 60 sexually abused and non-abused young people and indicated that those who had self-injured in the past year were significantly less hopeful about the future and in another study, women who reported frequent SIB also reported significantly higher levels of difficulties engaging in goal-directed behaviors when distressed (Gratz & Roemer, 2008), perhaps due to pessimism concerning the future outcomes of these goals. Glassman and colleagues (2007) have noted a gap in the literature, mentioning that future research is needed concerning SIB and temporal relations.

**Table 1: Study 1 Intercorrelations**

Scale, Subscale or Survey Question	1	2	3	4	5	6	7	8
1. SIB								
2. Self-focus	.400**							
3. Self reported "rush" from gambling	.258**	.153						
4. Skipping important events in order to gamble	.288*	.043	.259**					
5. Self reported exacerbation of injury due to exercising too heavily	.250*	.175	.046	.063				
6. Self reported exercising too intensely	-.198*	-.086	-.005	-.117	.388**			
7. Coping with substances	.297**	.336**	.112	.060	.159	-.042		
8. Coping with self-distraction	.197*	.393**	.098	.043	.072	-.145	.103	
M	1.47	4.07	1.39	1.08	1.58	1.84	2.41	3.92
SD	2.48	1.22	1.30	.50	1.06	1.14	1.63	1.17

p < .00, \* p < .05, \*\* p < .01

**Table 2: Study 1 ANOVA Based on Reports of Any Self-injury**

	Low Self-Focus		High Self-Focus		N
	M	SD	M	SD	
Past TP					
Low	.717	1.49	.923	1.93	66
High	.539	.967	3.40	2.42	33

In one attempt to address the need for further research, Aloia and colleagues (2009) conducted a study on self-focus and escape-style-coping and found evidence for a connection between past time perspective and escape behaviors. The correlational analysis was based on a sample of 63 undergraduates who had completed a survey on coping. Results indicated there was a significant positive correlation between coping with substances and past TP and a positive correlation was found between past TP and trait self-focus. The researchers concluded that chronic self-focus might facilitate the development of escape as a coping style and that the combination of past TP and high trait self-focus might indicate vulnerability for addictions or other negative health behaviors.

### Current Research

The current studies were undertaken to address a gap in the literature regarding self-injurious behaviors and its connection to escape-style coping and self-focus. It was hypothesized that those individuals who reported engaging in SIB would also be high in self-focus and report other related escape-style coping behaviors. This knowledge would be valuable to cognitive, social and clinical psychologists in their understanding, assessment, and treatment of SIB. Study 1 addressed this hypothesis with correlational and ANOVA analyses of archival data, and Study 2 was a follow up study comprised of a similar analysis, but based on a survey equipped with more complete scales addressing health behaviors and coping styles.

## STUDY 1

### Method

**Participants.** Participants were 103 undergraduate students from Bridgewater State College, between the ages of 18 and 39 ( $M = 20.4$ ). There were 66 females and 37 males in the study. The sample was mostly Caucasian ( $N = 78$ ). The students were recruited through the psychology subject pool and were mostly from the introductory psychology course, but some other psychology courses also offered participation in research as a way to earn extra course credit.

**Materials.** Measures on a paper-pencil survey included the Deliberate Self-harm Inventory (Gratz, 2001), the self-focus temperament scale (Spievak, 2003), a portion of the Coping Strategies Questionnaire (CSQ; Rosenstiel & Keefe, 1983), an incomplete Brief COPE (Carver, 1997), the Temporal Orientation Scale (TOS; Holman & Silver, 1998), and questions addressing gambling and exercise attitudes.

**Procedure.** The data was originally collected using the Bridgewater State College research lab during October of 2008. After reviewing a consent letter that advised them of their rights, participants responded to the paper and pencil survey in groups of one to ten. IRB approval was obtained and participants were treated in accordance with APA guidelines.

**Data Analysis.** Archival data was entered and analyzed in the spring of 2009. Participants' scores for individual SIB behaviors were discrete variables, but (similar to Gratz & Roemer, 2008) were compiled into a continuous variable based on the number of SIBs reported, while the other scales were scored as directed by the authors of existing scales or, in the case of gambling, and smoking behaviors, based on the means of the items in each scale. Descriptive statistics were generated followed by a correlational analysis of significant variables. As a final analysis a one-way between subjects analysis of variance (ANOVA) of grouped individual difference data was done to explore the effects of self-focus and TP.

**Results.** In order to investigate the hypothesized link between SIB, self-focused temperament and escape-style coping, data was examined for patterns of behaviors and personality traits previously linked with the constructs. Correlational analysis supported the hypothesis that participants who engaged in SIB would be higher in self-focus ( $r = .40, p < .01$ ). Moreover, results showed that individuals who reported engaging in SIB also responded to items addressing escape-style coping mechanisms such as smoking, gambling, and excessive exercise. Further intercorrelations of interest are reported in Table 1. The ANOVA was completed in order to test the hypothesized interaction between self-focus and past orientation, and examine their individual and combined influence on self-injury. Scores from the relevant scales were sorted and the highest third and lowest two-thirds were compared. Those who scored in the highest third of both the self-focus scale and past orientation subscale reported significantly higher incidences of SIB. There were significant main effects for both self-focus ( $F(1,95) = 9.43, p < .003, \eta^2 = .09$ ) and past TP ( $F(1,95) = 5.29, p < .024, \eta^2 = .053$ ) in predicting frequency of SIB. In addition, the interaction between self-focus and past TP ( $F(1,95) = 7.07, p < .009, \eta^2 = .069$ ) was a significant predictor SIB frequency. Table 2 displays the means for the ANOVA groups.

**Discussion.** In line with previous research indicating a positive correlation between self-focused attention and other harmful behaviors (Baumeister, 1991b; Heatherton & Baumeister, 1991; Hull & Young, 1983b; Spievak, 2003), results indicated a positive relationship between SIB and self-focus. Additionally, results suggest that those who engaged in other escape behaviors may also use SIB as an escape-style-coping mechanism. Although correlational research cannot support causal claims, these findings support the hypothesis that SIB may function as an escape from the negative affect associated with high levels of self-focus. As past TP was previously linked with self-focus (Aloia et. al, 2009), the significant interaction between these variables found in the ANOVA was supportive as well, especially given that the interaction was a significant predictor of SIB frequency. Despite the fact that the Study 1 survey was not designed as an examination of SIB and was limited by the available scales, results were encouraging, suggesting that further attention be paid to better address the hypothesis. The data for Study 2 allowed for a more thorough investigation of the research questions.

## STUDY 2

### Method

**Participants.** Participants were 151 undergraduate students from Bridgewater State College, between the ages of 18 and 54 ( $M = 20.98$ ). There were 114 females and 37 males in the study. The sample was mostly Caucasian ( $N = 129$ ). Like Study 1, students were recruited through the psychology subject pool. IRB approval was attained for this study and participants were treated in accordance with APA guidelines.

**Materials.** The DSHI (Gratz, 2001), the self-focus scale (Spievak, 2003), TOS (Holman & Silver, 1998), and the gambling questions remained consistent with Study 1 and two scales, the brief COPE and the CSQ appeared in their entirety. Many scales were added to the new survey to include the identify traits previously linked to the variables of interest. These scales include the Zimbardo Time Perspective Inventory (ZTPI; Zimbardo & Boyd, 1999), the State-Trait Anxiety Inventory (Spielberger, Gorsuch & Lushene, 1970), the Eating Attitudes Test (EAT; Garner & Garfinkel, 1979), the Exercise Dependence Scale-Revised (Hausenblas & Downs, 2002), an adapted Michigan Alcohol Screening Test (MAST; Selzer, 1971), and the interoceptive awareness subscale from the Eating Disorder Inventory (EDI; Garner, Olmstead & Polivy, 1983). Also, two scales were used to measure trauma symptoms including The PTSD checklist-civilian version (PCL; Weathers, Litz, Huska & Keane, 1994) and The Trauma Symptom Checklist 40 (TSC; Briere & Runtz, 1989). Additional items added inquired about depressed mood, the presence of childhood abuse, and also asked participants to report the severity of any abuse.

**Table 3: Study 2 ANCOVA Based on of Any Self-injury**

	M	SD	N
Self-focus			
Low	.606	1.469	99
High	1.529	2.420	51
Past Negative TP			
Low	.733	1.799	101
High	1.306	2.033	49
Past Positive TP			
Low	1.553	2.320	47
High	.631	1.590	103

**Procedure.** Participants completed a paper and pencil survey comprised of scales relating to general information, health behaviors, attentional orientation, time perspective, and coping behaviors. The surveys were completed in small groups of one to ten people. Participants reviewed a consent form advising them of their rights before beginning the survey. Participants were treated in accordance with APA guidelines and generally took no more than an hour to complete the questionnaire.

**Data Analysis.** Just as in Study 1, participants' responses to SIB questions were summed to create a continuous variable based on the number of SIBs reported. Then descriptive, correlational, and ANOVA results were examined. For Study 2 analysis of covariance (ANCOVA) was also performed. Then, the continuous variables (self-focus temperament, past negative, and past positive) were broken down into discrete variables for purposes of showing the directionality of effects.

**Results.** A correlational analysis was conducted to measure the relationship between SIB frequency and specific scales, subscales, or items as indicated by the hypotheses. Replicating Study 1, a significant positive correlation was found between SIB and self-focus. Significant positive correlations were also found for childhood maltreatment, trait anxiety, trauma and PTSD symptoms, and smoking and alcohol addiction. Positive correlations between SIB and catastrophizing, coping with behavioral disengagement and with self-blame were also significant. There was a negative correlation between interoceptive awareness and SIB. Intercorrelations values and their significance appear in Table 4.

As in Study 1, an ANOVA was completed using the Temporal Orientation Scale (TOS). Study 1 results regarding the

interaction between past TP and self-focus were not replicated. However, when the past negative TP and past positive TP subscales of the Zimbardo Time Perspective Inventory (ZTPI) were used instead of TOS, the results did support the hypotheses. In the analysis of both subscales, those with higher scores in self-focus engaged in SIB at higher rates. Additionally, an interaction between past positive TP and self-focused temperament ( $F(1, 146) = 4.08, p < .05, \eta^2 = .03$ ) was found to be significant, indicating that those who had higher scores in self-focus combined with lower scores in past positive TP engaged in SIB at higher rates. ANCOVA revealed that both self-focused temperament ( $F(1, 148) = 4.16, p < .05, \eta^2 = .03$ ) and past positive TP ( $F(1, 148) = 12.69, p < .00, \eta^2 = .08$ ) to be significant covariates in predicting SIB. The effects were in the hypothesized direction, as demonstrated by the group means shown in Table 3.

**Discussion.** Study 2 was successful in meeting all primary objectives and served to provide more support for the hypotheses. Those individuals who reported self-injury were also high in self-focus and reported other related escape-style-coping behaviors. Additionally, correlations with both coping with behavioral disengagement and coping with self-blame supported the suggestions in past research that SIB might be related to escaping or displacing negative feelings. Study 2 also replicated many of the findings from Study 1 including results regarding the hypothesized positive correlation between SIB and self-focus temperament, smoking, and coping with substances. The ANOVA could not be replicated with the TOS, but results from the ZTPI showed a significant interaction between self-focused temperament and past positive time perspective in the hypothesized direction.

### Summary and Concluding Discussion

Upon discovery of a gap in the literature, the current studies were designed to directly investigate SIB as a coping mechanism and escape behavior. The hypotheses were developed based largely on the available clinical findings and were tested using two non-clinical samples of young adults. These samples yielded results parallel those present in clinical literature. Encouraging results produced in Study 1 prompted the development of Study 2, a replication and expansion of Study 1.

In contrast to much of the clinical literature, results from the general population samples made use of self-reported symptoms of psychopathology rather than actual diagnoses. However, the results were comparable to clinical findings. For example, a significant negative correlation between SIB and positive mood was reported in the current study, providing support for the link between SIB and depression found in the clinical literature (Swanston, et al., 1999). This link is not surprising and may

even explain other significant correlations found in the current studies such as the positive correlations found between SIB and both coping with self-blame and catastrophizing. In one recent study, these coping strategies (along with rumination and positive reappraisal) were shown to play an essential role in the reporting of symptoms of psychopathology including depression and anxiety (Garnefski, Legerstee, Kraaij, Van Den Kommer & Teerds, 2002). The findings regarding coping styles that include catastrophizing and self-blame compliment findings that self-injurers had a low tolerance for distress and hyperarousal (Barrera, Violo & Graver, 2007; Nock & Mendes, 2008). In self-blame, attention is turned inward provoking negative thoughts about the self, and in catastrophizing, negative thoughts build upon one another creating a sense of heightened hyperarousal. Perhaps a tendency to use these two maladaptive coping strategies triggers the need for an escape response, creating a vulnerability to SIB.

The above pattern of correlates provides support for SIB under the hypothesized theoretical framework, but additional correlates can be used to make even further connections. SIB and childhood maltreatment were strongly linked in Study 2, as they had been in the literature (Glassman, et al., 2007; Gratz & Roemer, 2008; Weierich & Nock, 2008). Researchers have found many mediators for the relationship between childhood maltreatment and SIB. Such mediators include self-criticism (Glassman, et al., 2007), limited access to emotional regulation strategies (Gratz & Roemer, 2008), and PTSD symptoms (Weierich & Nock, 2008). Although the current studies did not investigate variables as mediators, strong correlations were found between SIB and self-blame, interoceptive awareness, PTSD symptoms, and scores on the Trauma Symptom Checklist. Interoceptive awareness was negatively correlated indicating that self-injurers tended to have difficulties in understanding their feelings and cognitions, possibly due to, or perpetuated by, the limited access to emotional regulation strategies, (as suggested in Gratz and Roemer, 2008). Poor interoceptive awareness and anxiety seem to contribute to vulnerability to maladaptive coping, and in combination with childhood maltreatment may lead to the development of SIB.

In Study 2, as in the literature, SIB was significantly positively correlated with trait anxiety (Klonsky & Olino, 2008). Replicating previous findings (Spievak, 2003), anxiety was also correlated with self-focused temperament and several maladaptive coping strategies. These coping strategies include coping with substances, self-distraction, behavioral disengagement, self-blame, and catastrophizing. Interestingly, both self-focused temperament and SIB were also connected to these coping strategies. This pattern of correlates, together with a positive relationship between self-focus temperament

and SIB, supports the hypothesis that self-focused temperament may reflect maladaptive coping such as escape-style coping. Also, given these results, it is likely that SIB is an escape behavior exacerbated by the anxiety associated with self-focus temperament.

Results suggested that time perspective is another variable of interest in predicting SIB. Both the ANOVA and ANCOVA showed evidence that past TP, characterized by ruminating in the past, was linked to self-focused temperament. As mentioned, previous literature has found coping with rumination in association with the reports of both depression and anxiety symptoms (Garnefski et al., 2002). Zimbardo and Boyd (1999) have specifically linked past-negative TP to depression, unhappiness, anxiety, aggression, and low self-esteem, while past-positive TP has shown the opposite correlations. These correlations, along with similar patterns revealed in the current work, support conclusions that self-focused temperament can be both inhibiting and defeating (Duval, Wicklund & Fine, 1972). Support was also shown for the hypothesis that self-focus temperament creates a vulnerability for SIB, as SIB was related both in this study and others with depression (Swanston, et al., 1999), anxiety (Klonsky & Olino, 2008), and low self-esteem (Rodham, Hawton & Evans, 2005),

Correlational results cannot yield a causal claim presenting a limitation to the current studies. In order to provide more conclusive support for the theoretical model proposed, further research is needed concerning SIB, self-focused attention, and coping styles, perhaps in an experimental setting. Research of this type may be possible with the use of a questionnaire to assess SIB, an impossible task to induce a state of self-focused attention (as in Spievak, 2003), and physiological monitoring equipment. A scale assessing reasons for SIB could also add important data to a follow up study possibly speaking more to the possible function of the behavior in relation to coping. Any further testing of this model would serve to better identify the correlates, causes, and functions of SIB.

As for the current studies, results have implications in both the scientific and clinical communities. Psychologists interested in cognition can appreciate the suggestion that a psychological process of directing attention may in fact be a catalyst responsible for overt behaviors, while a social psychologist may be more interested in the role of child abuse as applied to Baumeister's theory of escaping the self. The results of these studies concerning SIB, coping, anxiety, and damaging health behaviors are of definite interest to clinicians who could use these results to further their understanding of patients struggling with SIB. Furthermore, knowledge of these connections could assist clinicians in their assessment

screenings and treatment strategies for patients. In addressing SIB, clinicians may wish to screen for potential past trauma, such as childhood maltreatment, substance use problems, and the presence of other escape behaviors, as it is possible that SIB is simply a symptom of larger problems. Also, according to findings concerning coping, clinicians may be most successful in aiding self-injurers with the use of coping skills training. These new types of screenings, treatments, and understandings could have implications for psychologists, self-injurers and their family and friends. Further study is warranted.

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**Table 4: Study 2 Intercorrelations**

Scale or Subscale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
1. SIB																				
2. Self-focus	.165*																			
3. Trait anxiety	.256**	.653**																		
4. Interoceptive awareness	-.161*	-.288**	-.232**																	
5. Positive Mood	-.260*	-.470**	-.640**	.174*																
6. Trauma Symptoms	.301**	.538**	.674	-.250**	-.593**															
7. PTSD Symptoms	.184*	.639**	.674**	-.261**	-.596**	.756**														
8. Smoking addiction	.293**	-.002	.015	-.033	-.027	.080	.021													
9. Alcohol addiction	.217*	.139	.220**	-.104	-.161	.174*	.140	.350**												
10. Emotional abuse	.299**	.177*	.468**	-.103	-.349**	.434**	.397**	.102	.079											
11. Severity of emotional abuse	.463**	.117	.313**	.045	-.319**	.302**	.305**	-.035	-.037	.775**										
12. Sexual abuse	.316**	-.025	.164*	-.005	-.104	.185*	.229**	.112	-.053	.342**	.366**									
13. Severity of sexual abuse	.352*	.004	.091	.099	-.116	.107	.241	.155	-.081	.166	.420**	.907**								
14. Physical abuse	.302**	.125	.255**	-.030	-.183*	.371**	.331**	.137	.102	.596*	.514**	.368**	.270							
15. Severity of physical abuse	.258*	.135	.132	-.065	-.142	.275*	.256*	.050	-.104	.514*	.562**	.316*	.399**	.828**						
16. Coping with substances	.247**	.187*	.274**	-.090	-.229**	.157	.243**	.283**	.706**	.187*	.109	.051	.053	.159	.023					
17. Coping with behavioral disengagement	.160*	.357**	.478**	-.286**	-.322**	.388**	.495**	.015	.169*	.319**	.254*	.038	.058	.149	.101	.283**				
18. Coping with self-blame	.184*	.547**	.542**	-.314**	-.361**	.475**	.551**	.063	.205*	.242**	.171	-.041	-.108	.124	-.051	.234**	.497**			
19. Catastrophizing	.347**	.436**	.637**	-.181*	-.432**	.473**	.510**	.029	.157	.398**	.315**	.238**	.187	.245**	.060	.182*	.432**	.430**		
M	.92	3.89	2.12	4.09	4.00	1.71	2.24	1.27	1.31	1.71	2.50	.31	1.07	.94	1.92	1.79	1.93	3.05	2.10	
SD	1.89	1.03	.61	1.07	1.32	.40	.83	.56	.36	2.03	1.87	1.03	1.86	1.68	2.00	1.30	1.03	1.38	1.38	1.02