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Reliability and Validity of the Implicit Association Test Measuring Shame

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by

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ABSTRACT
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Shame plays a significant role in the development and maintenance of mental health diagnoses including: depression, eating disorders, and posttraumatic stress disorder (PTSD; Goss & Allan, 2009; Izard, 1991; Lee, Scragg, & Turner, 2001). However, utilizing explicit self-reports to measure shame leaves researchers vulnerable to demand characteristics and introspective limitations of the participants. Greenwald, McGhee, and Schwartz (1998) developed the Implicit Association Test (IAT) to assess implicit attitudes instead of explicit reports. The objective of the current study was to develop an IAT-Shame and to determine its internal and test-retest reliability and convergent and discriminant validity. Our central hypothesis was that explicit self-reports of shame would be modestly correlated with IAT-Shame scores and weakly correlated with instruments measuring other negative affect. We also predicted that individuals with a history of childhood sexual abuse (CSA) will have higher scores on the IAT-Shame compared to those without CSA. Our IAT-Shame showed internal and test-retest reliability. Contrary to our hypotheses, explicit measures of shame and other negative affect were negatively correlated with IAT scores. Additionally, no significant difference in IAT scores was found between those with and without CSA. Possible effects of a small sample size are discussed.

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Reliability and Validity of the Implicit Association Test Measuring Shame

Shame is characterized by a global negative assessment of the self and plays a significant role in the development and maintenance of mental health problems including: depression, eating disorders, and posttraumatic stress disorder (PTSD; Goss & Allan, 2009; Lee, Scragg, & Turner, 2001). Women in particular are at increased risk of experiencing shameful affect (Feiring, Taska, and Lewis, 1996) due to higher levels of certain interpersonal trauma, such as sexual assault (Gross, Winslet, Adams, & Gohm; 2006). Although the impact of shame in mental illness has long been noted, there are serious limitations to existing instruments that assess for shame. Our objective in the current study is to develop an instrument that provides a valid and reliable measurement of shame and to determine the psychometric properties of our instrument.

Shame and Guilt

The body of literature focusing on shame and guilt is continually expanding. Discrete emotions theory assumes that there are a set number of core emotional responses that are expressed in similar ways universally. Although there is debate about which emotions comprise the core emotions (theorists debate between 7-10 emotions), all theorists agree on shame as one of them. Lewis' (1971) influential book on the subject emphasizes the distinction between the shame and guilt, which other theorists (Tangney & Dearing, 2002; Lazarus, 1991) have since reiterated. The critical distinction may be summarized as follows: shame focuses on the self and guilt focuses on behaviors. An individual who is feeling ashamed may think "I can't believe what ***I*** have done!", where the emphasis is on the self. By contrast, an individual experiencing guilt may think "I can't believe what I have ***done***!", where the emphasis is on the act of transgression (Lewis, 1971).

Izard (1991) characterizes shame as feeling exposed, vulnerable, defective, awkward, and defeated with action tendencies of turning away, hiding, blushing, and concealing oneself. An accompanying state of temporary speechlessness poses problems for detecting its existence and measuring its extent (Tangney & Dearing, 2002). Guilt is a related but comparatively less intense emotion that is often characterized as feelings of remorse and regret regarding specific behaviors. Guilt is characterized by a feeling of having done something wrong and the need to perform reparative action.

Despite these differences, Lewis (1971) also commented that shame and guilt are often evoked simultaneously and may be indistinguishable. In particular, she observed that the cognitions' of individuals experiencing shame and guilt may be similar or even identical. The cognitive theorist Lazarus (1991) also emphasized the overlapping qualities of the two emotions, stating that they could potentially refer to different forms of the same emotion. Shame and guilt both represent an internal state that is brought about by a violation of social norms and manifests itself through negative affect and cognitions. Also, shame and guilt are considered to be interpersonal emotions, meaning they involve disapproval or perceived disapproval from others, and intrapersonal emotions, meaning they also involve disapproval from the self. Izard (1991) also highlights shame and guilt as self-conscious emotions, meaning they occur at a time of heightened self-awareness. Similar topographical action tendencies, like turning away and concealing something, are another way these emotions overlap.

Functions. Discrete emotions theorists emphasize the signaling function of emotional displays for social species like humans and other primates. Izard (1991) reflects on the adaptive benefits of shame and guilt. The action tendencies brought about by these emotions (e.g., appearing smaller, averting one's gaze, or hiding)

communicate remorse and vulnerability (Lazarus, 1991). These behaviors curtail the expression of further contempt from others and motivate the shamed individual to remove themselves from the exposed situation (Izard, 1991). The communicative nature of shame and guilt are thus beneficial at the individual level.

Guilt and shame are also adaptive at the societal level, meaning they promote social harmony and conformity. In attempts to avoid shame, individuals fulfill social responsibilities, develop skills, follow norms, and regulate their sexual behavior. Thus, even the threat of shame can regulate human behavior (Izard, 1991). Guilt motivates pro-social behavior through the desire to make amends or seek forgiveness following a wrongdoing.

In summary, even though shame and guilt may be different theoretically, practically and functionally a number of theorists view them as similar in a variety of ways, almost to the point of being indistinguishable. For the purposes of this paper, discussion of these emotions will be simplified by referring to them both as shameful affect.

Shame and Guilt in Psychopathology

Although shame and guilt may be beneficial at moderate levels, experiencing intense and recurrent shame and guilt can lead to maladaptive perfectionism, anxiety, sensitivity to rejection, interpersonal difficulties, and increased self-reproach (Lewis, 1971). Additionally, the body of research indicates that shame fuels mood disorders, anxiety disorders, personality disorders, and eating disorders (Goss & Allan, 2009; Izard, 1991; Lee, Scragg, & Turner, 2001).

Cognitive Biases. One way shame influences mental health is through various cognitive biases. For example, selective attention and cognitive distortions may serve to support unwarranted guilt and shame (Goss & Allan, 2009). Also, cognitive theorists

state that those experiencing shame may be more likely to make stable, personal attributions for negative events (Andrews, 1995; Tangney, 2002). For example, a person who experiences high amounts of shame is more likely to attribute the cause of negative life events to permanent characteristics of him- or herself. This type of attributional style is sometimes referred to as self-blame. Such guilt-induced attribution styles have been suggested by cognitive psychologists to result in feelings of depression.

Avoidance. The unwillingness to experience negative affect, called "avoidance", has been suggested to play a role in depression as well as anxiety disorders, such as PTSD (Foa and Kozak, 1986; Lee, Scragg, & Turner, 2001). As described by Lazarus (1991) and Izard (1991), those who experience shame often have the tendency to hide or turn away, which topographically resembles overt avoidance behavior. Lee, Scragg, and Turner (2001) posited that shame may often lead to dysfunctional avoidance coping strategies (e.g. substance abuse, staying in bed to, avoiding thoughts and feelings) following a trauma. As Foa and Kozak (1986) emphasize, avoidance impedes emotional processing of the event. In other words, without emotional processing anxiety symptoms are maintained.

Abuse-Psychopathology Link. According to Andrews (1995, 2000), shame has been shown to act as a mediator variable between sexual abuse and subsequent psychopathology such as depression, bulimia, and PTSD. One process that explains the role of shame in the abuse-psychopathology link is self-blame and stigmatization. A survivor may come to blame him or herself in a variety of ways. The perpetrator may blatantly blame the survivor by communicating that any number of the survivors' behaviors caused the perpetration. In addition, stigma of abuse develops when the survivor receives negative messages regarding the abuse (Finkelhor & Browne, 1985). The perpetrator may deliver the message of stigmatization through the secrecy of the

perpetration. Additional stigmatization may be conveyed upon disclosure of the abuse through the reactions of friends and family.

Measuring Shame in Research

Bargh and Chartrand (1999) proposed that the majority of our processing involves implicit (unconscious) processing because it requires less effort and occurs faster than explicit (conscious) processing. Implicit processing occurs outside of awareness, and thus, individuals are unable to provide a verbal report of their implicit processes. Explicit processes refer to the effortful regulation of cognitions, attitudes, and emotions (Bargh & Chartrand, 1999; Gyurak, Gross, Etkin, 2011).

Explicit Measurement. As empirical studies on shame developed over the past two decades, the issue of accurately measuring shame arose. The current body of research has relied on facial coding and self-report measures to asses for shame (Andrews, 1995; Deblinger, 2005; Feiring & Taska, 2005; Izard). Discrete emotions theorists code facial expressions to infer emotional states. Action tendencies for each emotion include facial movements, so the presence of those facial movements is indicative of the emotion. In other words, facial expressions are thought to be an overt reflection of internal experiences. Ekman (1989) has found distinctive facial expressions for happiness, sadness, fear, surprise, disgust, and anger across cultures.

There are several limitations with using facial coding to assess for shame. First, although Izard (1991) posits that the downturned face and averted gaze is a universal expression, Lazarus (1991) and Ekman (1989) state that guilt and shame do not have universal facial patterns. Second, Lazarus (1991) warns against relying exclusively on facial coding, suggesting that due to the complexity of emotions, supplemental material should be used to corroborate the presence of the emotion, such as self-report, body posture analysis, and autonomic nervous system responses. The validity of facial coding

may also be called in to question due to various abilities of deliberately forming or inhibiting expression. Just as people can deliberately try to misreport on self-report and interview measures, thereby misrepresenting their affective experience, individuals can suppress or modify facial expressions. Lastly, facial coding is costly and time-consuming, especially if other information beyond the coding, such as psychophysiological recording, is required for a valid and reliable measurement.

On the other hand, self-report questionnaires are a fast, easy, and inexpensive way to measure individuals' affect. Two of the most widely used self-report measures for assessing shame are the Experience of Shame Scale (ESS; Andrews, Qian, & Valentine., 2002) and the Test of Self-Conscious Affect (TOSCA-3; Tangney, Wanger, & Gramzow, 1989). The ESS includes 25 items measuring individuals' proneness to experience shame on three dimensions: bodily shame, characterological shame, and behavioral shame. The TOSCA-3 provides 16 scenarios and measures shame along the dimensions of externalization, detachment, guilt, shame, and pride. Both of these instruments have demonstrated good validity and reliability.

Social cognitive psychology research, however, suggests that reliance on explicit measurements of private experiences may not provide the most valid representation of those experiences (Greenwald & Banaji, 1995; Bargh & Chartrand, 1999; Nosek, Greenwald, & Banaji, 2007). According to Bargh and Chartrand (1999), many psychology researchers have utilized dual-process models to explain how humans process information through both explicit (conscious) and implicit (unconscious) processing. In 1949, McGinnies found higher galvanic skin responses (GSRs) for threatening words compared to neutral words presented too quickly to consciously evaluate. His results indicated that participants were able to unconsciously recognize words, which supports the idea behind dual processing. Soon after the McGinnies study,

in 1951, Lazarus demonstrated that participants could unconsciously discriminate between neutral and threatening stimuli, as measured by GSRs, even when they could not recall the stimuli presented (Lazarus, 1991). Participants could make correct automatic evaluations, but were unable to accurately report what they saw. Therefore, individuals do not have to consciously process the words presented in order to make evaluations.

Explicit Processing. Explicit processes refer to the effortful regulation of cognitions, attitudes, and emotions (Bargh & Chartrand, 1999; Gyurak, Gross, Etkin, 2011). This pathway of processing occurs within awareness and involves conscious control and decision-making. Individuals are able to provide a verbal report of their explicit processes. Because individuals are able to exert control over explicit processes, it follows that individuals may also decide to not report certain information. In regards to research, for instance, participants may be unwilling to report their experiences truthfully due to demand characteristics (Greenwald et al., 2002). Demand characteristics have long been noted to influence the validity of self-reports (Orne, 1962). Research demonstrates that demand characteristics play a role in inaccurately reporting negative affective states such as anxiety, depression, and fear (Matias and Turner, 1986; Kornblith et al., 1984; Speltz and Bernstein, 1976). In their 2008 study, Nichols and Maner found that participants who were privy to the experimenter's purpose were more likely to provide information that helped corroborate the hypothesis. Therefore, in studies where the purpose is apparent, such as providing self-report questionnaires to assess for a certain trait or providing interventions aimed at a specific target, participants may explicitly report inaccurate information in an effort to assist the experimenter. These participants may report improvements in their negative affect post intervention, even

when actual improvement is minimal. Therefore, demand characteristics should be considered when interpreting results based on explicit measures.

Participants may also be unable to report their internal experiences due to lack of insight and the inaccessible nature of certain emotions. Explicit self-report measures are vulnerable introspective limitations of participants (Greenwald & Banaji, 1995; Bargh & Chartrand, 1999; Nosek, Greenwald, & Banaji, 2007).

Implicit Processing. Importantly, Bargh and Chartrand (1999) proposed that the majority of our processing involves implicit processing because it requires less effort and occurs faster than explicit processing. Implicit processing refers to the automatic regulation of cognitions, attitudes, and emotions that occurs outside of our awareness. Lazarus (1991) posits that, due to the inaccessible nature, implicit emotions are less able to be examined by the individual in a rational way. Thus, they may make individuals more susceptible to psychopathology via ineffective coping skills and decision-making strategies.

According to Lewis (1991) and Lazarus (1991), shame is particularly difficult for an individual to identify. They state that certain emotions, especially those like shame and guilt, operate in part by preventing awareness of the experience of that emotion. Individuals who are unaware of the presence or degree of their attitudes and emotions will be unable to accurately report them on questionnaires. This inability to report private experiences reveal that there are limits to introspective abilities that explicit self-report measures would not detect. Therefore, the dual nature of how humans process their thoughts and emotions should influence how researchers assess for these processes.

Utilizing explicit self-reports leaves researchers vulnerable to demand characteristics and introspective limitations of the participants. Gyurak, Gross and Etkin (2011) stated that implicit processing does not require a decision to be made regarding

how to respond, but instead a response can be automatically evoked by a stimulus. Also, implicit processing does not require monitoring or introspection of one's private experiences. Thus, implicit measurement bypasses these important issues that are present with explicit measurements.

The Implicit Association Test. As a result of research on the dual-process model of processing, Greenwald, McGhee, and Schwartz (1998) developed the Implicit Association Test (IAT). The IAT is a computer-based instrument that asks participants to quickly sort various stimuli into two target categories. Researchers interpret faster response latencies as a reflection of stronger implicit associations between the stimuli and the categories. For example, in the race IAT faster response latencies in sorting "glorious" in to the "European-American" category compared to "glorious" in to the "African-American" category would indicate a stronger implicit association between pleasant words and European-American individuals (Greenwald, McGhee, & Schwartz, 1998).

The IAT measures implicit attitudes instead of explicit reports and has been adapted to measure attitudes toward race, age, and smoking among others. Research findings indicate that the IAT is a useful method of detecting implicit cognition when explicit measures fail to do so. For example, the IAT assessing for racial bias identified an implicit preference for White people over Black people by 96% (25 of 26) of the White participants. Explicit measures demonstrated that only 27% (7 of 26) of participants admitted to their preference of Whites over Blacks (Greenwald et al., 1998). Further adaptations of the IAT include measurements of attitudes about the self including self-esteem (Greenwald & Farnham, 2000) and negative affective states including anxiety (Egloff & Schmukle , 2002) and anger (Schnabel, Banse, & Asendorpf, 2006). However, IAT's that implicitly measure numerous other clinically relevant affective states, such as

depression, guilt, and shame, had not yet been developed prior to this study. Accordingly, adapting the IAT to measure shame has extended the literature measuring negative affect implicitly.

Benefits of the IAT-Shame

The contribution of the IAT-Shame allows for detecting shame implicitly, bypassing the need for individuals to explicitly state their shameful experiences. This contribution is a first step towards gaining a deeper understanding of shame in the context of psychopathology. The IAT-Shame provides benefits for empirical research and clinical purposes.

Empirical Benefits. Empirically, this tool will ensure we are capturing a valid measurement of shame. Self-report measures provide serious threats to internal and external validity because participants may be motivated to report inaccurate levels of shame due to various motivations and introspective abilities. The IAT-Shame will help identify individuals who experience intense levels of shame, but may be motivated to minimize their experience due to unwillingness to disclose their experience or in an attempt to demonstrate improvement when none exists in an effort to "assist" the researcher. The IAT-Shame will also help identify those experiencing significant levels of shame, but who are unable to explicitly disclose this due to introspective limitations or the inability to speak which often accompanies the experience of shame.

Shame is often differentiated from guilt in the current literature, especially in terms of how each one originates. However, there is no consensus on these difference and they overlap on many other key features such as facial expressions, cognitive content, and action tendencies (Tangney & Dearing, 2002; Lazarus, 1991). Furthermore, a number of authors reveal that laypeople are not familiar with the differences between shame and guilt either at the level of facial expression recognition (Izard, 1991) or verbal

differentiation (Tangney & Dearing, 2002). Izard (1991) asked participants which emotion they understood the least and shame was ranked the highest. In summary, the expression and understanding of these emotions seem to intersect in important ways. It seems plausible that exploring general shameful affect (including guilt) will be more beneficial than differentiating between them, especially at the functional level (i.e. motivation for treatment, denial of feelings of remorse, patient understanding of their emotions). The IAT-Shame would provide an implicit method for detecting the general experience of shameful affect.

Additional Clinical Benefits. Clinically, the IAT-Shame would be important because shame may be a barrier to treatment. The accurate detection of shame through the IAT-Shame would provide an opportunity to problem-solve ways to overcome such a barrier. In addition, many authors suggest that clients may be unable or reticent to reveal feelings of shame in session due to its speechless nature (Feiring &Taska, 2005; Izard, 1991). If shame is exposed as a central feature of a client's symptoms through the use of the IAT-Shame, treatment can be modified to fit the client's needs more closely. Not only do many individuals deny their experience of shame, they also tend to avoid reflecting on it (Izard, 1991). According to emotional processing theory, reflecting on and processing events may be helpful for clients (Foa and Kozak, 1991). Thus, the IAT –Shame would offer a deeper understanding of clients' experiences of shameful affect and may help clinicians develop a more accurate case conceptualization.

Specific Aims

The current study had two primary aims. The first primary aim was to determine the reliability of our recently developed IAT-Shame. Specifically, we evaluated internal reliability and one-week test-retest reliability. The lag period of one week was chosen

based on test-retest procedures from prior IAT's, which ranged from a few days to 3 weeks (Egloff and Schmukle, 2002). We hypothesized that the internal reliability of the IAT-Shame would be consistent with average internal reliability of prior IATs (.80). Similarly, we predicted test-retest reliability would be consistent with average test-retest reliability of prior IATs (.60) (Nosek, Greenwald, and Banaji, 2007).

The second primary aim was to investigate the construct validity of the IAT in the following ways. We compared the IAT-Shame to several explicit self-report measures of affect. To determine convergent validity we compared the IAT-Shame to the Experience of Shame Scale (ESS) and to the Test of Self-Conscious Affect (TOSCA-3). Prior IAT's show a wide range of correlations between the IAT and relevant explicit reports with an average of .24 (Egloff & Schmukle). We predicted that there would be a small-to-moderate correlation between the IAT-Shame and ESS and between the IAT-Shame and the TOSCA-3. To determine discriminant validity, we compared the IAT-Shame to other negative affective states by administering the Beck Depression Inventory-II (BDI-II), State-Trait Anxiety Inventory (STAI), Social Phobia Inventory (SPIN), and SF-36 Health Survey. We hypothesized that there would be a lower correlation between these measures and the IAT than between the IAT and explicit measures of shame. We also compared IAT performance of participants with a history of childhood sexual assault (CSA+) to participants with no history of sexual abuse (CSA-) utilizing the Childhood Trauma Questionnaire (CTQ). We hypothesized that those with CSA+ would show greater levels of shame as measured by the IAT-Shame, ESS, and TOSCA. In addition, we predicted that those with CSA+ would have higher levels of depression and general anxiety as measured by the BDI and STAI, respectively. Finally, we included a measure of social desirability as a control variable for possible inclusion in correlational analyses.

Methods

Research Design Overview. The objective of the current study was to determine the psychometric properties of our recently developed IAT-Shame using a population of college women. The current study focused on women due to increased rates of CSA among women (~25%) compared to men (~10%) (Goodyear-Brown, 2012) and increased rates of interpersonal violence and sexual assault (Gross, Winslet, Adams, & Gohm, 2006). It was hypothesized that individuals with a history of prior sexual assault would experience greater levels of shame than those without such a history. Accordingly, focusing on women participants was expected to insure an adequate representation of individuals with elevated levels of shame. Participants were asked to attend two assessment sessions spaced one week apart. At the first visit, participants completed informed consent, a demographics questionnaire (see Appendix A), the IAT-Shame, and explicit self-report questionnaires.

The order of administering the implicit measure or explicit measures was counterbalanced, with some participants completing the IAT first and others completing the explicit measures first. The IAT-Shame was also counterbalanced by switching the order of Blocks 3 and 4 with Blocks 6 and 7 and by switching stimuli from left to right. Further details with regard to counterbalancing the IAT are provided below. Following a one-week lag period, participants returned for a second visit session to repeat the IAT-Shame. Participants were debriefed and provided with local mental health services after both visits.

Participants. Participants were 56 women. Inclusion criteria were: (a) identification as female and (b) between the ages of 18-60. Exclusion criteria for our study were: (a) identification as male and (b) less than 18 years of age or more than 60. Participants were recruited via in-class recruitment and online recruitment from a

population of undergraduate students taking psychology classes at the University of Wisconsin-Milwaukee. Each participant was asked to attend two sessions in return for extra credit for participation. Participants were directed to sign-up for a study time-slot using a university-based web portal.

Materials

Explicit Self-Report Measures.

Experience of Shame Scale (ESS; Andrews, Qian, & Valentine, 2002; see Appendix B). The ESS is a 25- item questionnaire that assesses proneness to experience shame on three dimensions: bodily shame, characterological shame, and behavioral shame. This instrument shows strong psychometric properties.

Test of Self-Conscious Affect (TOSCA-3; Tangney, Wanger, & Gramzow, 1989; see Appendix C). The TOSCA-3 provides 16 scenarios and measures shame along the dimensions of externalization, detachment, guilt, shame, and pride. This instrument demonstrates good validity and reliability.

Beck Depression Inventory-II (BDI-II; Beck, 1996; see Appendix D). The BDI-II is a 21-item questionnaire that assesses depressive symptomatology over the past week. Items are scored on a 4-point Likert scale, yielding total scores of 0-63 points with higher scores indicating more severe depression. This instrument has strong psychometric properties and has been widely used.

State-Trait Anxiety Inventory (STAI; Spielberger, Gorsuch, Lushene, 1970; see Appendix E). The STAI is a 40-item questionnaire that assesses state (temporary) and trait (stable) anxiety on a 4-point Likert scale. This instrument shows strong psychometric properties and has been used extensively in research.

Social Phobia Inventory (SPIN; Connor et al., 2000; see Appendix F). The SPIN is a 17-item self-report questionnaire that utilizes a 5-point Likert scale from 0 (Not at all)

to 4 (Extremely). Participants are asked to rate how much each statement applies to them. The SPIN has demonstrated good reliability and validity.

Short Form Health Survey (SF-36; Ware & Sherbourne, 1992; see Appendix G). The SF-36 is used extensively in research as a measure of general health and quality of life. The 36-item questionnaire yields 8 subscales of health. This survey demonstrates strong psychometric properties.

Childhood Trauma Questionnaire-Short Form (CTQ; Bernstein et al., 2003; see Appendix H). The CTQ is a 25-item retrospective self-report measure consisting of 5 subscales (emotional abuse, physical abuse, sexual abuse, emotional neglect, and physical neglect). Each subscale consists of 5 items rated on a 5-point Likert scale (1=never true, 5= very often true). The total score of the CTQ ranges from 25-125 and includes cutoff scores for each subscale for none-low, low-moderate, moderate-severe, and severe-extreme exposure to abuse. By convention, those with a cutoff score greater than moderate was considered positive for a history of that type of abuse (Bernstein, 2003; Huang, 2012). The subscale that was the focus of the current study is the Sexual Abuse (SA) subscale. For the SA subscale, a score greater than or equal to 8 was considered positive for a history of childhood sexual abuse (Bernstein, 2003; Huang, 2012). Individuals with low-moderate levels of CSA was excluded to maximize differences between groups. The CTQ has demonstrated strong reliability and validity and good sensitivity of cutoff scores.

Sexual Experiences Scale (SES; Koss & Oros, 1982; see Appendix I). The SES assesses type of unwanted sexual contact from the ages of 14 and up. In particular, it assesses the frequency of abuse and rates of resistant behaviors. Scores yield sexual victimization categories: non-victim, sexual contact, attempted coercion, coercion, attempted rape, and rape.

Marlowe-Crowne Social Desirability Scale (MCSDS; Crowne & Marlowe, 1960; see Appendix J). The MCSDS is a commonly used, 33-item, true-false measure that assesses for demand characteristics. Items include statements that are possible, but unlikely to occur. This instrument has strong psychometric properties and has been used extensively in research.

Implicit Measure: IAT-Shame. The IAT-Shame was administered on laptop computers using EPrime software. Shame words were selected based on their ratings of similarity in meaning by undergraduate research assistants. The control words were selected from prior IATs and were based on ratings of positive valence from undergraduate research assistants. Table 1 displays a complete list of the items for the IAT-Shame.

Table 1
Items for the IAT-Shame

Category Label			
Me	Others	Shame	Honor
I	They	Humiliated	Proud
Self	Them	Ashamed	Honored
My	Their	Rejected	Respected
Me	Hers	Guilty	Admired
Mine	Others	Embarrassed	Praised

The IAT began with instructions informing the participant that she will be sorting target words into categories using key presses. To sort a target word into the category on the left, the participant was instructed to press “q”. To sort a target word into the category on the right, the participant was instructed to press “p”. Correct responses are indicated by black dots in Figure 1. Participants were instructed that a fixation cross

would appear prior to the target word appearing. Once the target word appeared, participants were instructed to make the appropriate key press as quickly and as accurately as possible. The instructions also informed participants that if they made an incorrect response, a red "X" would appear until the correct response was made. Once the correct response was made, the program advanced to the next trial. Separate instructions were presented at the beginning of each block, which identified the upcoming categories for the participant.

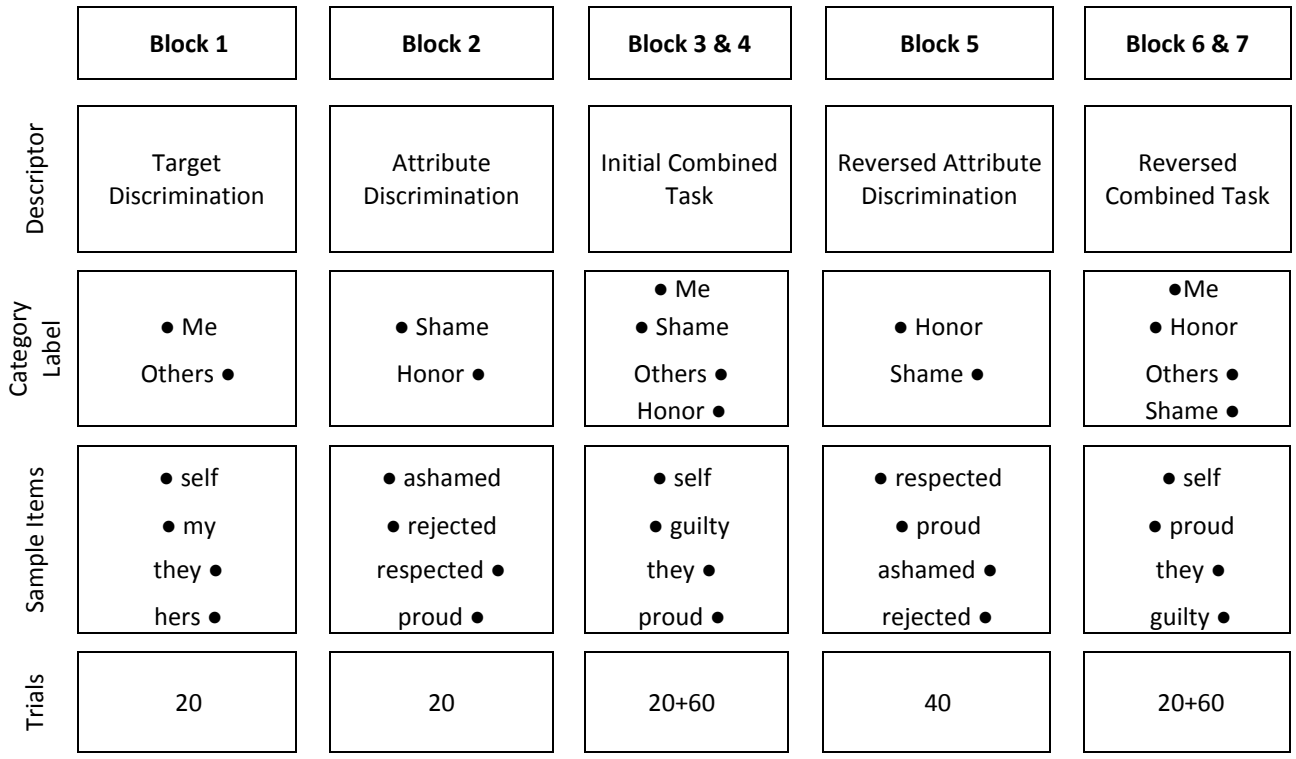

Figure 1 Illustration of the blocks of the Implicit Association Test-Shame. The black dots in the category label row indicate which side the word appears on. The dots in the sample items category indicate that either the left key or right key press is correct. Blocks 1 and 2 are practice blocks. Blocks 3 and 4 are the first critical blocks. Block 5 reverses Block 2 and is a practice block. Blocks 6 and 7 are the reversed critical blocks. An individual experiencing shame would have more difficulty (longer response latency) to sort self-pronouns in Blocks 6 and 7 and easier (faster) to sort self-pronouns into Blocks 3 and 4.

The IAT was presented in seven blocks, as illustrated in Figure 1. The first two blocks were practice blocks, in which participants learned to correctly sort randomly presented target words into the categories of “Me” and “Others” (Block 1) for 20 trials and “Shame” and “Honor” (Block 2) for 20 trials. The ten “Me” and “Other” words appeared twice in Block 1 and the ten “Shame” and “Honor words appeared twice in Block 2. The third block was the first critical combined task, wherein participants sorted the target words into the combined categories of “Me or Shame” and “Others or Honor” for 20 trials. Each of the twenty stimulus words appeared once. Block 4 repeated Block 3 for an additional 60 trials. Each of the twenty stimulus words appeared three times in this block. Block 5 was another practice block that reversed the location of Block 2 categories (“Honor” and “Shame”) for 40 trials. This number of trials for Block 5 was based on prior IATs shown to reduce order effects (Greenwald, et al, 2003). The ten “Shame” and “Honor” words were presented four times in this block. Block 6 was the second critical combined task, wherein the participant sorted the same words into the combined categories “Others or Shame” and “Me or Honor” for 20 trials. Each of the twenty stimulus words again appeared once. Block 7 repeated Block 6 for an additional 60 trials. Each of the twenty stimulus words again appeared three times in this block. The number of trials and blocks used were based on prior IATs (Greenwald and Farnham, 2000; Egloff and Schmukle, 2002; Greenwald, et al, 2003).

We counterbalanced stimulus location and order across groups of participants. Location was counterbalanced by switching categories from the left to right. Block order was counterbalanced by presenting ”Me or Shame” early, in Blocks 3 and 4, or later, in Blocks 6and 7. Therefore, our counterbalancing procedure resulted in four versions of the IAT.

Improved Scoring Algorithm. The speed with which the participant can sort the stimulus word into the correct category (called response latency) reveals how implicitly connected the words are to that category for that participant. The IAT is based on the assumption that a faster response latency indicates that the task is easier due to a stronger implicit association between the words. Broadly, the IAT-Shame measures the ease with which participants can sort personal pronouns into shame categories compared to honor categories. More specifically, participants experiencing shame would be expected to sort target stimuli into the “Me or Shame” and “Others or Honor” categories more rapidly than sorting target stimuli into the “Me or Honor” and “Others or Shame” categories. In other words, participants who are experiencing guilt or shame would be expected to sort Blocks 3/4 more rapidly than Blocks 6/7.

The critical dependent variable for the IAT is the *D* score. We used the improved IAT scoring algorithm as described in Greenwald et al. (2003, Table 4) for computing *D.* Participants with over 10% of trials with response latencies less than 300ms were discarded. For the remaining participants, trials over 10,000ms were also discarded. Built-in error penalties were utilized in which response latencies were recorded until the participant made the correct response, and the corrected error trials were used in the analyses. To compute IAT scores, the mean of the response latencies for Block 3 was subtracted from the mean of the response latencies for Block 6. This difference was divided by the standard deviation of all trials in Blocks 3 and 6. Similarly, the mean of Block 4 was subtracted from the mean of Block 7 and the resulting difference divided by

the standard deviation of all trials in Blocks 4 and 7[1]. The equal-weighted average of these two resulting ratios yielded the *D* score. Positive *D* scores reflect a shorter reaction time to sort personal pronouns into the shame category and an implicit experience of shame. Negative *D* scores reflect a shorter reaction time to sort personal pronouns into the honor category and an implicit experience of honor.

Procedure. Prior to arrival, participants were scheduled for two assessment sessions with one week in between. Upon arrival to the laboratory, a female experimenter led the participant into a private room and reviewed the informed consent document for the study. After written consent was obtained, the experimenter directed the participant's attention to a laptop computer that was used to administer all the measures. Approximately half of the participants then completed the demographic questionnaire and explicit self-report measures followed by the IAT-Shame; the remaining participants completed the IAT-Shame then demographics and self-report. Within each of these groups, participants completed one of the four counter-balanced versions of the IAT. Assignment to one of the resulting eight conditions was based on the use of a random number generator.

Demographic and self-report measures were administered using the program Qualtrics. The experimenter provided brief instructions for the completion of the self-report questionnaires. The participant completed these individually and informed the experimenter upon completion. In regards to the IAT administration, the experimenter provided a brief introduction to the IAT-Shame, and ran the IAT-Shame program. The

[1] This calculation was modified for the two counterbalanced versions of the IAT in which "Me or "Shame" was presented later and "Me or Honor" was presented earlier. In these versions, Block 6 was subtracted from Block 3, and Block 7 was subtracted from Block 4.

experimenter left the room during testing and was available for questions from the participant. Detailed instructions for responding were provided through the IAT-Shame program. The IAT-Shame instructed participants to make the appropriate key-press for each block. They were also informed that upon making an error a red “X” would appear, prompting the participant to correct her answer. After the participant completed the questionnaires and the IAT, the experimenter conducted a debriefing loosely based on Malamuth and Check’s (1984) procedure, commonly used in sexual assault research. The current debriefing procedure used language modified for a sample with a history of childhood sexual abuse. All experimenters were trained by the principle investigators of the study. The debriefing procedure emphasized the high rates of sexual abuse and assault and lack of blame for the victims. Participants were also given a packet of local referral sources. The debriefing procedure occurred for all participants who have given consent to participate. Any participant indicating experiencing acute distress upon completing the study was directed to a graduate student in clinical psychology. This occurred on one occasion. Furthermore, Dr. Cahill, the faculty adviser for this study, was also available for providing assistance to distressed participants. Need for his assistance never arose. After the debriefing, the experimenter reminded the participant of the second visit one week later and thanked her for her participation.

One week later, the participant returned to the lab for the second visit. An experimenter led the participant in to a private room. The identical version of the IAT from visit one was administered at visit two. Similar to the first visit, upon completion the experimenter conducted the debriefing procedure.

Results

The flow of participants through the study is presented in Figure 2. A total of 77 participants scheduled an appointment to participate in the study, 56 of which (73%) presented to laboratory for the first session. However, the data for three participants was lost due to technical difficulties.

Therefore, the final sample that was included in analyses consisted of 53 undergraduate women who completed at least the first session. The average age of participants was 22.4 (*SD* = 7.0) years. The majority of the participants were non-Hispanic Caucasian (*n* = 40, 71%). A large minority of the women indicated a sexual trauma history (n = 14, 25%) according to the Sexual Experiences Survey. According to scores on the Sexual Abuse subscale of the CTQ, 14.3% (n = 8) indicated a history of sexual abuse as a child.

Sixty eight percent (*N* = 38) of those who attended visit one also attended visit 2. One participants data was removed due to >10% short response latencies. This yielded 37 participants whose data was included in our analyses for visit two. No differences were found on demographics and study variables between those who completed both visits (visits one and two) and those who completed only visit one. Only one trial from one participant was discarded for a response latency >10,000ms at visit one.

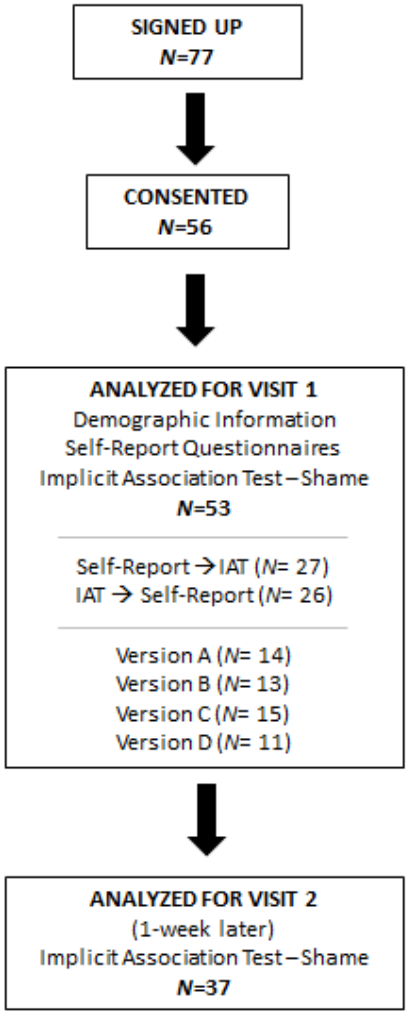

Figure 2 Flow of Participants through the study. Of those who presented to the first visit, three participants' data were lost due to technical difficulties. About half (N=27) completed self-reports first and half (N=26) completed the IAT first. Roughly equivalent numbers of participants completed one of the four counterbalanced versions of the IAT. 38 participants arrived for the second visit. One participant's data was discarded due to short response latencies.

Preliminary Analyses

Half the participants completed the self-report questionnaires first; half completed the IAT-Shame first. No significant differences were found between IAT-Shame performance based on taking the IAT first or second ($t(51) = .267$, $p > .05$). This is consistent with prior research (Egloff & Schmukle , 2002).

We computed an initial 2 (stimuli right versus left) X 2 (stimuli early versus late) between-subjects factorial ANOVA to test for effects of counterbalancing stimulus location and order. A significant main effect was found for order ($F(1,49) = 21.58$, $p < .05$)). This analysis revealed that presenting "Me + Shame" earlier than "Me + Honor" resulted in a smaller IAT score ($M = -.27$, $SD = .28$) compared to presenting "Me + Honor" then "Me + Shame" ($M = -.61$, $SD = .24$). Thus, some block order effects were detected, which is consistent with prior research (Greenwald, Nosek, and Banaji, 2003). No differences were detected in the versions in which stimuli were switched from left to right. Accordingly, we used partial correlations controlling for order when evaluating reliability and validity. IAT scores were not correlated with social desirability as measured by the MCSDS ($r_{partial}(50) = .14$, $p > .05$). Accordingly, social desirability was not included in subsequent analyses. Finally, no differences were found between the four versions of the IAT in regards to the average number of errors made in each block.

Primary Analyses

To evaluate our first primary aim related to reliability, we calculated internal and test-retest reliability. To evaluate internal reliability of the IAT-Shame, we utilized the split-half method by computing *D* separately for even number trials and odd numbered trials and computing the partial correlation between the two halves while controlling for order. Internal reliability for Blocks 3/6 ($r_{partial}(50) = .47$, $p = .00$) and 4/7 ($r_{partial}(50) = .63$, $p = .00$) was modest, but significant.

To evaluate temporal stability, the partial correlation between the overall *D* scores for visits one and two was computed. Because three IATs for visit one were lost, this yielded 34 participants with data for visit one who also returned for session 2. Test-retest reliability yielded a modest positive correlation that was significant ($r_{partial}(34) = .40$, $p = .02$).

Our second primary aim was to determine construct validity of our IAT-Shame by calculating convergent validity and discriminant validity with explicit self-report measures of shame and non-shame negative emotions, and by comparing IAT scores of those with and without CSA. To test convergent validity, we compared the IAT to the ESS and TOSCA-3 (see Table 2). All correlations with the IAT and self-reports were small and negative, with the exception of the TOSCA Detachment/ Unconcern subscale.

Table 2
Convergent Validity of the IAT-Shame

	Explicit Self-Report Measures of Shame							
	ESS Global	ESS Charact.	ESS Behav.	ESS Bodily	TOSCA Shame	TOSCA Guilt	TOSCA Extern.	TOSCA Detach.
Partial r* (*N* = 53)	-.18	-.20	-.12	-.16	-.15	-.15	-.10	.04
P	.21	.15	.40	.26	.28	.31	.47	.76

* Controlling for Early vs. Late

To determine discriminant validity, we compared the IAT scores to measures of depression, state- and trait-anxiety, social phobia, and health (see Table 3). We found a significant negative correlation between the BDI and the IAT. All partial correlations

were negative except for the SF-36 and the magnitudes of the effects were comparable to those obtained for the ESS and TOSCA-3.

Table 3
Discriminant Validity of the IAT-Shame

	Explicit Self-report Measure				
	BDI-II	STAI-State	STAI-Trait	SPIN	SF-36
Partial r* (N = 53)	**-.30**	-.25	-.24	-.15	.13
p	**.03**	.08	.08	.28	.37

Note. Bold face indicates statistically significant at $p < .05$.
* Controlling for Early vs. Late

CSA+ individuals were compared to CSA- individuals on each of the study variables using separate independent samples t-tests (see Table 4). Significant differences between CSA+/- were found on the BDI ($t(48) = -2.15$, $p < .05$) and the SPIN (t(df) = -2.83 (48), $p < .05$). Those with CSA+ showed significantly higher BDI scores (M = 19.63, SD = 11.86) and SPIN scores (M = 26.50, SD = 17.62)) compared to CSA- (M = 11.26, SD = 9.75; M = 13.24, SD = 10.93, respectively). CSA+/- did not differ significantly on other study variables. Independent samples t-tests did not show any differences on study variables for those with and without a lifetime history of sexual assault as measured by the SES.

Table 4
Construct Validity Comparing Means for CSA+/CSA-

Measure	Overall *M (SD)*	CSA+ *M (SD)*	CSA- *M (SD)*	*t(df)*	*p*
IAT	-.42 (.31)	-.51 (.35)	-.42 (.31)	.68 (46)	.50
ESS	48.61 (16.01)	56.13 (20.29)	46.86 (15.90)	-1.45 (48)	.15
TOSCA-Shame	45.30 (10.65)	52.13 (10.50)	44.62 (10.67)	-1.83 (48)	.07
TOSCA-Guilt	65.84 (9.50)	72.13 (5.74)	64.79 (10.12)	-1.98 (48)	.06
BDI-II	12.79 (10.59)	19.63 (11.86)	11.26 (9.75)	**-2.15 (48)**	**.04**
STAI-State	34.80 (11.76)	39.38 (17.74)	34.02 (10.02)	-1.21 (48)	.23
STAI-Trait	40.46 (11.90)	44.55 (14.60)	39.29 (11.33)	-1.14 (48)	.26
SPIN	15.61 (12.56)	26.50 (17.62)	13.24 (10.93)	**-2.83 (48)**	**.01**
SF-36	70.80 (17.81)	63.75 (14.58)	71.31 (18.94)	1.07 (48)	.29

Note. Experience of Shame Scale –Global (ESS), Test of Self-Conscious Affect (TOSCA), Short Form Health Survey (SF-36), Beck Depression Inventory (BDI-II), Social Phobia Inventory (SPIN), State-Trait Anxiety Inventory (STAI). Bold face indicates statistically significant at $p < .05$.

Discussion

Shameful affect underlies many mental health disorders, yet remains notably understudied (Goss & Allan, 2009; Izard, 1991). Particularly, research regarding the measurement of shame is lacking. Current methods of measuring shame rely on facial coding, which is costly and time-consuming, and self-report measures, which are vulnerable to demand characteristics (Andrews, 1995). Moreover, theorists describe shame as operating outside of our awareness and inducing a state of temporary speechlessness (Feiring & Taska, 2005; Izard, 1991). Both demand characteristics and

the distinct characteristics of shame create difficulties for explicit measurement, such as through self-report measures.

Implicit measurement, on the other hand, involves automatically evoking a response from an individual, thereby bypassing the problems of self-report measures (Bargh & Chartrand, 1999; Greenwald, McGhee, & Schwartz, 1998). Thus, we developed the Implicit Association Test (IAT)-Shame to provide an implicit measure of the experience of shameful affect. For the IAT-Shame, participants were required to sort personal pronouns into “shame” and “honor” categories. Faster sorting into the shame category was assumed to reflect a greater experience of shame. The goal of the current study was to evaluate the reliability and validity of our recently developed IAT-Shame.

Our first aim was to evaluate the internal and test-retest reliability of the IAT-Shame. It was hypothesized that we would obtain a correlation value of .80 for internal reliability. Our internal reliability for Blocks 3 and 6 was .47 and for Blocks 4 and 7 was .63. We also hypothesized that we would obtain a correlation of approximately .60 for test-retest reliability, and we found a correlation of .40. Although we obtained statistically significant internal and test-retest reliability, the correlations were smaller than expected.

Our second aim was to evaluate the construct validity of the IAT-Shame by comparing the IAT to explicit self-reports and by comparing groups we hypothesized that would differ on levels of shame. For convergent validity, we predicted a correlation of approximately .24 between our IAT and explicit measures of shame. However, our evaluation of convergent validity revealed that almost all self-reports of shame were negatively correlated with the IAT (ranging from -.10 to -.20), reflecting the opposite direction that we predicted. For discriminant validity, we hypothesized that our IAT and explicit measures of non-shame negative affect would be substantially smaller than .24.

Our evaluation of discriminant validity revealed small, negative correlations that were insignificant with the exception of the BDI. Interestingly, the BDI and IAT-Shame showed a significant modest, negative correlation.

We also hypothesized that those with a history of sexual abuse in childhood (CSA+) would show higher levels of negative affect as measured by the IAT-Shame and explicit self-reports than those without such a history (CSA-). Our results indicated that those with and without a history of CSA had comparable levels of shame as measured by both the IAT-Shame and explicit self-report measures. Furthermore, our analyses revealed that social desirability was not masking reports of shame. However, CSA+ individuals showed increased levels of depression and social phobia as compared to CSA- individuals. It should be highlighted that our CSA+ sample was small (N = 7), thereby limiting the strength of any conclusions that can be drawn from our current sample. In summary, our indices of convergent validity were non-significant, in the opposite direction as predicted, and were of similar magnitude as indices of discriminant validity. Additionally, our analyses of CSA+/- individuals failed to find differences on implicit or explicit measures of shame. A significant limitation of this was a small sample of participants with a history of CSA (N = 7). Therefore, we must be cautious in making conclusions about our criterion validity.

Our modest test-retest reliability may indicate that the IAT-Shame may be more of a state measure than a trait measure, and thus would be less stable over time. This could have implications for future research. For example, if the IAT-Shame is a state measure then this would suggest the need for a shorter lag time between measurements of test-retest reliability. Furthermore, if the IAT-Shame captures transient negative affect that could indicate that IAT-Shame may be useful in a mood induction experiment in future studies.

Furthermore, our study indicated that stronger negative affect (higher scores on the ESS, TOSCA, BDI, STAI, SPIN) was associated with increased ability to sort personal pronouns in to the “honor” category. Conversely, less negative affect (lower scores on self-reports), was associated with increased ability to sort personal pronouns in to the “shame” category. It is possible that negative affect in general (such as guilt, shame, depression, and anxiety) contributes to IAT performance. The BDI in particular seemed to contribute to IAT-Shame performance as indicated by the significant, negative correlation between the BDI and IAT-Shame.

One potential explanation for our negative correlations between IAT-Shame and explicit reports involves attention avoidance of shameful stimuli. Threat-related attention biases include selective attention *towards* and *away* from threatening stimuli (Wald, et.al., 2011). Individuals may engage in an initial attention bias towards the threatening stimuli, but ultimately avoid the stimuli from further processing. Perhaps our findings reflect that individuals with high negative affect ultimately shift their attention away from shameful words in the same way that individuals after a trauma may ultimately shift their attention away from threatening stimuli (Beevers, 2011). Future research should therefore consider measuring the role of attention and avoidance in shame, such as by utilizing the dot-probe task (MacLeod, Mathews, & Tata, 1986). This task could be used with both supraliminal and subliminal stimuli to disentangle different mechanisms of selective attention within the information processing chain. This future direction for research is particularly interesting in light of the many avoidance action tendencies common to those experiencing shame (Izard, 1991).

Another explanation for our findings may involve the category labels and target words. Perhaps, the control category of “honor” or the target control words (e.g. proud, respected) may not have adequately captured the opposite of individuals’ experiences of

shame. It may be that a neutral word would have offered a better control word. Additionally, because IATs involve sorting words in to both “me” and “others” categories, IAT scores can reflect attitudes about oneself and attitudes about others. For example, an IAT score indicating someone has an implicit bias towards “honor’” may have been driven by sorting the self into the “honor” category or by sorting others in the “shame” category. Therefore, the inherent structure of IATs that utilize “me” or “other” categorizations makes it impossible to differentiate between individuals’ implicit attitudes towards themselves and implicit attitudes toward others. This issue may be particularly important when focusing on an abused sample that may perceive others negatively. Lastly, the insignificant correlations of our convergent validity may reflect that our study was underpowered and a larger sample would have indicated that these correlations were significant.

Because we expected modest correlations between the IAT and self-reports and the current study found negative correlations, future research should consider other methods of determining convergent validity other than reliance on self-report. For example, research could compare IAT scores for a larger sample of CSA+ (or other samples in which levels of shame would be expected to be high) compared to controls. However, our findings using a small sample size suggest that CSA+ individuals may not experience more shame than CSA- individuals. This surprising finding may indicate that utilizing CSA+/- groups in research may not be suitable for distinguishing between high shame and low shame.

In conclusion, our recently developed IAT-Shame proved to be reliable internally and temporally. However, further research is needed to verify the IAT-Shame as a valid measure of shameful affect.

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APPENDICES

Appendix A: Demographics

Age ____

Race:_____

1 – Asian or Pacific Islander
2 – Black/African American
3 – Native American
4 – White
5 –Other (please specify): _____
99 – I do not wish to disclose this

Ethnicity: Are you Hispanic? _____

1 – Yes
2 – No
99 – I do not wish to disclose this

Relationship status:_____

1-Single, not dating
2-In a committed relationship
3-Married
4-Divorced/Separated

Appendix B: ESS

ESS

Everybody at times can feel embarrassed, self-conscious, or ashamed. These questions are about such feelings if they have occurred at any time in the past year. There are no 'right' or 'wrong' answers. Please indicate the response which applies to you with a tick.

	not at all	a little	moderately	very much
1. Have you felt ashamed of any of your personal habits?	( )	( )	( )	( )
2. Have you worried about what other people think of any of your personal habits?	( )	( )	( )	( )
3. Have you tried to cover up or conceal any of your personal habits?	( )	( )	( )	( )
4. Have you felt ashamed of your manner with others?	( )	( )	( )	( )
5. Have you worried about what other people think of your manner with others?	( )	( )	( )	( )
6. Have you avoided people because of your manner?	( )	( )	( )	( )
7. Have you felt ashamed of the sort of person you are?	( )	( )	( )	( )

	not at all	a little	moderately	very much
8. Have you worried about what other people think of the sort of person you are?	( )	( )	( )	( )
9. Have you tried to conceal from others the sort of person you are?	( )	( )	( )	( )
10. Have you felt ashamed of your ability to do things?	( )	( )	( )	( )
11. Have you worried about what other people think of your ability to do things?	( )	( )	( )	( )
12. Have you avoided people because of your inability to do things?	( )	( )	( )	( )
13. Do you feel ashamed when you do something wrong?	( )	( )	( )	( )
14. Have you worried about what other people think of you when you do something wrong?	( )	( )	( )	( )
15. Have you tried to cover up or conceal things you felt ashamed of having done?	( )	( )	( )	( )
16. Have you felt ashamed when you said something stupid?	( )	( )	( )	( )

	not at all	a little	moderately	very much
17. Have you worried about what other people think of you when you said something stupid?	( )	( )	( )	( )
18. Have you avoided contact with anyone who knew you said something stupid?	( )	( )	( )	( )
19. Have you felt ashamed when you failed in a competitive situation?	( )	( )	( )	( )
20. Have you worried about what other people think of you when you failed in a competitive situation?	( )	( )	( )	( )
21. Have you avoided people who have seen you fail?	( )	( )	( )	( )
22. Have you felt ashamed of your body or any part of it?	( )	( )	( )	( )
23. Have you worried about what other people think of your appearance?	( )	( )	( )	( )
24. Have you avoided looking at yourself in the mirror?	( )	( )	( )	( )
25. Have you wanted to hide or conceal your body or any part of it?	( )	( )	( )	( )

Appendix C: TOSCA-3

Below are situations that people are likely to encounter in day-to-day life, followed by several common reactions to those situations. As you read each scenario, try to imagine yourself in that situation. Then indicate how likely you would be to react in each of the ways described. We ask you to rate *all* responses because people may feel or react more than one way to the same situation, or they may react different ways at different times.

For example:

You wake up early one Saturday morning. It is cold and rainy outside.

a) You would telephone a friend to catch up on news. (1) - 2 - - 3 - - 4 - - 5 (not likely — very likely)

b) You would take the extra time to read the paper. 1 - - 2 - - 3 - - 4 - (5) (not likely — very likely)

c) You would feel disappointed that it's raining. 1 - - 2 - (3) - 4 - - 5 (not likely — very likely)

d) You would wonder why you woke up so early. 1 - - 2 - - 3 - (4) - 5 (not likely — very likely)

In the above example, I've rated *all* of the answers by circling a number. I circled a "1" for answer (a) because I wouldn't want to wake up a friend very early on a Saturday morning—so it's not at all likely that I would do that. I circled a "5" for answer (b) because I almost always read the paper if I have time in the morning (very likely). I circled a "3" for answer (c) because for me it's about half and half. Sometimes I would be disappointed about the rain and sometimes I wouldn't—it would depend on what I had planned. And I circled a "4" for answer (d) because I would probably wonder why I had awakened so early.

Please do not skip any items—rate all responses.

1. *You make plans to meet a friend for lunch. At 5 o'clock, you realize you stood your friend up.*
   a) You would think: "I'm inconsiderate." 1 - - 2 - - 3 - - 4 - - 5 not likely very likely
   b) You would think: "Well, my friend will understand." 1 - - 2 - - 3 - - 4 - - 5 not likely very likely
   c) You'd think you should make it up to your friend as soon as possible. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely
   d) You would think: "My boss distracted me just before lunch." 1 - - 2 - - 3 - - 4 - - 5 not likely very likely

2. *You break something at work and then hide it.*
   a) You would think: "This is making me anxious. I need to either fix it or get someone else to." 1 - - 2 - - 3 - - 4 - - 5 not likely very likely
   b) You would think about quitting. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely
   c) You would think: "A lot of things aren't made very well these days." 1 - - 2 - - 3 - - 4 - - 5 not likely very likely
   d) You would think: "It was only an accident." 1 - - 2 - - 3 - - 4 - - 5 not likely very likely

3. *You are out with friends one evening, and you're feeling especially witty and attractive. Your best friend's spouse seems to particularly enjoy your company.*
   a) You would think: "I should have been aware of what my best friend was feeling." 1 - - 2 - - 3 - - 4 - - 5 not likely very likely
   b) You would feel happy with your appearance and personality. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely
   c) You would feel pleased to have made such a good impression. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely
   d) You would think your best friend should pay attention to his/her spouse. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely
   e) You would probably avoid eye contact for a long time. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely

4. *At work, you wait until the last minute to plan a project, and it turns out badly.*
   a) You would feel incompetent. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely
   b) You would think: "There are never enough hours in the day." 1 - - 2 - - 3 - - 4 - - 5 not likely very likely
   c) You would feel: "I deserve to be reprimanded for mismanaging the project." 1 - - 2 - - 3 - - 4 - - 5 not likely very likely
   d) You would think: "What's done is done." 1 - - 2 - - 3 - - 4 - - 5 pay attention to his/her spouse. not likely very likely

5. *You make a mistake at work and find out a coworker is blamed for the error.*
   a) You would think the company did not like the coworker. 1 - - 2 - - 3 - - 4 - - 5 (not likely very likely)
   b) You would think: “Life is not fair.” 1 - - 2 - - 3 - - 4 - - 5 (not likely very likely)
   c) You would keep quiet and avoid the coworker. 1 - - 2 - - 3 - - 4 - - 5 (not likely very likely)
   d) You would feel unhappy and eager to correct the situation. 1 - - 2 - - 3 - - 4 - - 5 (not likely very likely)

6. *For several days you put off making a difficult phone call. At the last minute you make the call and are able to manipulate the conversation so that all goes well.*
   a) You would think: “I guess I’m more persuasive than I thought.” 1 - - 2 - - 3 - - 4 - - 5 (not likely very likely)
   b) You would regret that you put it off. 1 - - 2 - - 3 - - 4 - - 5 (not likely very likely)
   c) You would feel like a coward. 1 - - 2 - - 3 - - 4 - - 5 (not likely very likely)
   d) You would think: “I did a good job.” 1 - - 2 - - 3 - - 4 - - 5 (not likely very likely)
   e) You would think you shouldn’t have to make calls you feel pressured into. 1 - - 2 - - 3 - - 4 - - 5 (not likely very likely)

7. *While playing around, you throw a ball and it hits your friend in the face.*
   a) You would feel inadequate that you can't even throw a ball. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely
   b) You would think maybe your friend needs more practice at catching. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely
   c) You would think: "It was just an accident." 1 - - 2 - - 3 - - 4 - - 5 not likely very likely
   d) You would apologize and make sure your friend feels better. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely

8. *You have recently moved away from your family, and everyone has been very helpful. A few times you needed to borrow money, but you paid it back as soon as you could.*
   a) You would feel immature. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely
   b) You would think: "I sure ran into some bad luck." 1 - - 2 - - 3 - - 4 - - 5 not likely very likely
   c) You would return the favor as quickly as you could. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely
   d) You would think: "I am a trustworthy person." 1 - - 2 - - 3 - - 4 - - 5 not likely very likely
   e) You would be proud that you repaid your debts. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely

9. *You are driving down the road, and you hit a small animal.*
   a) You would think the animal shouldn't have been on the road. 1 - - 2 - - 3 - - 4 - - 5 (not likely / very likely)
   b) You would think: "I'm terrible." 1 - - 2 - - 3 - - 4 - - 5 (not likely / very likely)
   c) You would feel: "Well, it was an accident." 1 - - 2 - - 3 - - 4 - - 5 (not likely / very likely)
   d) You'd feel bad you hadn't been more alert driving down the road. 1 - - 2 - - 3 - - 4 - - 5 (not likely / very likely)

10. *You walk out of an exam thinking you did extremely well. Then you find out you did poorly.*
   a) You would think: "Well, it's just a test." 1 - - 2 - - 3 - - 4 - - 5 (not likely / very likely)
   b) You would think: "The instructor doesn't like me." 1 - - 2 - - 3 - - 4 - - 5 (not likely / very likely)
   c) You would think: "I should have studied harder." 1 - - 2 - - 3 - - 4 - - 5 (not likely / very likely)
   d) You would feel stupid. 1 - - 2 - - 3 - - 4 - - 5 (not likely / very likely)

11. *You and a group of coworkers worked very hard on a project. Your boss singles you out for a bonus because the project was such a success.*

a) You would feel the boss is rather short-sighted. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely

b) You would feel alone and apart from your colleagues. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely

c) You would feel your hard work had paid off. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely

d) You could feel competent and proud of yourself. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely

e) You would feel you should not accept it. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely

12. *While out with a group of friends, you make fun of a friend who's not there.*

a) You would think: "It was all in fun; it's harmless." 1 - - 2 - - 3 - - 4 - - 5 not likely very likely

b) You would feel small … like a rat. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely

c) You would think that perhaps that friend should have been there to defend him/herself. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely

d) You would apologize and talk about that person's good points. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely

13. *You make a big mistake on an important project at work. People were depending on you, and your boss criticizes you.*

a) You would think your boss should have been more clear about what was expected of you. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely

b) You would feel like you wanted to hide 1 - - 2 - - 3 - - 4 - - 5 not likely very likely

c) You would think: "I should have recognized the problem and done a better job." 1 - - 2 - - 3 - - 4 - - 5 not likely very likely

d) You would think: "Well, nobody's perfect." 1 - - 2 - - 3 - - 4 - - 5 not likely very likely

14. *You volunteer to help with the local Special Olympics for handicapped children. It turns out to be frustrating and time-consuming work. You think seriously about quitting, but then you see how happy the kids are.*

a) You would feel selfish, and you'd think you are basically lazy. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely

b) You would feel you were forced into doing something you did not want to do. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely

c) You would think: "I should be more concerned about people who are less fortunate." 1 - - 2 - - 3 - - 4 - - 5 not likely very likely

d) You would feel great that you had helped others. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely

e) You would feel very satisfied with yourself. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely

15. *You are taking care of your friend's dog while your friend is on vacation, and th dog runs away.*

a) You would think: "I am irresponsible and incompetent." 1 - - 2 - - 3 - - 4 - - 5 not likely very likely

b) You would think your friend must not take very good care of the dog or it wouldn't have run away. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely

c) You would vow to be more careful next time. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely

d) You would think your friend could just get a new dog. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely

16. *You attend your coworker's housewarming party and you spill red wine on a new cream-colored carpet, but you think no one notices.*

a) You think your coworker should have expected some accidents at suck a big party. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely

b) You would stay late to help clean up the stain after the party. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely

c) You would wish you were anywhere but at the party. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely

d) You would wonder why your coworker chose to serve red wine with the new light carpet. 1 - - 2 - - 3 - - 4 - - 5 not likely very likely

Appendix D: BDI-II

BDI-II

Instructions: This questionnaire consists of 21 groups of statements. Please read each group of statements carefully, and then pick out the **one statement** in each group that best describes the way you have been feeling during the **past two weeks, including today**. Circle the number beside the statement you have picked.

1. Sadness
0 I do not feel sad.
1 I feel sad much of the time.
2 I am sad all the time.
3 I am so sad or unhappy that I can't stand it.

2. Pessimism
0 I am not discouraged about my future.
1 I feel more discouraged about my future than I used to be.
2 I do not expect things to work out for me.
3 I feel my future is hopeless and will only get worse.

3. Past Failure
0 I do not feel like a failure.
1 I have failed more than I should have.
2 As I look back, I see a lot of failures.
3 I feel I am a total failure as a person.

4. Loss of Pleasure
0 I get as much pleasure as I ever did from the things I enHonor.
1 I don't enHonor things as much as I used to.
2 I get very little pleasure from the things I used to enHonor.
3 I can't get any pleasure from the things I used to enHonor.

5. Guilty Feelings
0 I don't feel particularly guilty.
1 I feel guilty over many things I have done or should have done.
2 I feel quite guilty most of the time.
3 I feel guilty all of the time.

6. Punishment Feelings
0 I don't feel I am being punished.
1 I feel I may be punished.
2 I expect to be punished.
3 I feel I am being punished.

7. Self-Dislike
0 I feel the same about myself as ever.
1 I have lost confidence in myself.
2 I am disappointed in myself.
3 I dislike myself.

8. Self-Criticalness
0 I don't criticize or blame myself more than usual.
1 I am more critical of myself than I used to be.
2 I criticize myself for all of my faults.
3 I blame myself for everything bad that happens.

9. Suicidal Thoughts or Wishes
0 I don't have any thoughts of killing myself.
1 I have thoughts of killing myself, but I would not carry them out.
2 I would like to kill myself.
3 I would kill myself if I had the chance.

10. Crying
0 I don't cry any more than I used to.
1 I cry more than I used to.
2 I cry over every little thing.
3 I feel like crying, but I can't.

_____ Subtotal

Page 1 Continued on Back ➔

11. Agitation

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

1 I feel more restless or wound up than usual.

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

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

12. Loss of Interest

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

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

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

3 It's hard to get interested in anything.

13. Indecisiveness

0 I make decisions about as well as ever.

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

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

3 I have trouble making any decisions.

14. Worthlessness

0 I do not feel I am worthless.

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

2 I feel more worthless as compared to other people.

3 I feel utterly worthless.

15. Loss of Energy

0 I have as much energy as ever.

1 I have less energy than I used to have.

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

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

16. Changes in Sleeping Pattern

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

1a I sleep somewhat more than usual.

1b I sleep somewhat less than usual.

2a I sleep a lot more than usual.

2b I sleep a lot less than usual.

3a I sleep most of the day.

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

17. Irritability

0 I am no more irritable than usual.

1 I am more irritable than usual.

2 I am much more irritable than usual.

3 I am irritable all the time.

18. Changes in Appetite

0 I have not experienced any change in my appetite.

1a My appetite is somewhat less than usual.

1b My appetite is somewhat greater than usual.

2a My appetite is much less than before.

2b My appetite is much greater than usual.

3a I have no appetite at all.

3b I crave food all the time.

19. Concentration Difficulty

0 I can concentrate as well as ever.

1 I can't concentrate as well as usual.

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

3 I find I can't concentrate on anything.

20. Tiredness or Fatigue

0 I am no more tired or fatigued than usual.

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

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

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

21. Loss of Interest in Sex

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

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

2 I am much less interested in sex now.

3 I have lost interest in sex completely.

_____ Subtotal Page 2

_____ Subtotal Page 1

_____ Total Score

Appendix E: STAI

SELF-EVALUATION QUESTIONNAIRE
STAI Form Y-1

Please provide the following information:

Name_____Date_____S_____

Age_____ Gender (*Circle*) **M** **F** T_____

DIRECTIONS:

A number of statements which people have used to describe themselves are given below. Read each statement and then circle the appropriate number to the right of the statement to indicate how you feel *right* now, that is, *at this moment*. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

	NOT AT ALL	SOMEWHAT	MODERATELY SO	VERY MUCH SO
1. I feel calm	1	2	3	4
2. I feel secure	1	2	3	4
3. I am tense	1	2	3	4
4. I feel strained	1	2	3	4
5. I feel at ease	1	2	3	4
6. I feel upset	1	2	3	4
7. I am presently worrying over possible misfortunes	1	2	3	4
8. I feel satisfied	1	2	3	4
9. I feel frightened	1	2	3	4
10. I feel comfortable	1	2	3	4
11. I feel self-confident	1	2	3	4
12. I feel nervous	1	2	3	4
13. I am jittery	1	2	3	4
14. I feel indecisive	1	2	3	4
15. I am relaxed	1	2	3	4
16. I feel content	1	2	3	4
17. I am worried	1	2	3	4
18. I feel confused	1	2	3	4
19. I feel steady	1	2	3	4
20. I feel pleasant	1	2	3	4

SELF-EVALUATION QUESTIONNAIRE
STAI Form Y-2

Name_____ Date_____

DIRECTIONS

A number of statements which people have used to describe themselves are given below. Read each statement and then circle the appropriate number to the right of the statement to indicate how you *generally* feel.

	ALMOST NEVER	SOMETIMES	OFTEN	ALMOST ALWAYS
21. I feel pleasant	1	2	3	4
22. I feel nervous and restless	1	2	3	4
23. I feel satisfied with myself	1	2	3	4
24. I wish I could be as happy as others seem to be	1	2	3	4
25. I feel like a failure	1	2	3	4
26. I feel rested	1	2	3	4
27. I am "calm, cool, and collected"	1	2	3	4
28. I feel that difficulties are piling up so that I cannot overcome them	1	2	3	4
29. I worry too much over something that really doesn't matter	1	2	3	4
30. I am happy	1	2	3	4
31. I have disturbing thoughts	1	2	3	4
32. I lack self-confidence	1	2	3	4
33. I feel secure	1	2	3	4
34. I make decisions easily	1	2	3	4
35. I feel inadequate	1	2	3	4
36. I am content	1	2	3	4
37. Some unimportant thought runs through my mind and bothers me	1	2	3	4
38. I take disappointments so keenly that I can't put them out of my mind	1	2	3	4
39. I am a steady person	1	2	3	4
40. I get in a state of tension or turmoil as I think over my recent concerns and interests	1	2	3	4

Appendix F: SPIN

Please read each statement and select a number 0, 1, 2, 3, or 4 which indicates how much the statement applied to you over the past week.

0 = Not at all 1 = A little bit 2 = Somewhat 3 = Very much 4 = Extremely

1. I am afraid of people in authority _____
2. I am bothered by blushing in front of people _____
3. Parties and social events scare me _____
4. I avoid talking to people I don't know _____
5. Being criticized scares me a lot _____
6. I avoid doing things or speaking to people for fear of embarrassment _____
7. Sweating in front of people causes me distress _____
8. I avoid going to parties _____
9. I avoid activities in which I am the center of attention _____
10. Talking to strangers scares me _____
11. I avoid giving speeches _____
12. I would do anything to avoid being criticized _____

13. Heart palpitations bother me when I am around people _____

14. I am afraid of doing things when people might be watching _____

15. Being embarrassed or looking stupid are my worst fears _____

16. I avoid speaking to anyone in authority _____

17. Trembling or shaking in front of others is distressing to me _____

Appendix G: SF-36

INSTRUCTIONS: This set of questions asks for your views about your health. This information will help keep track of how you feel and how well you are able to do your usual activities. Answer every question by marking the answer as indicated. If you are unsure how to answer a question please give the best answer you can.

1. In general, would you say your health is:

Excellent □
Very Good □
Good □
Fair □
Poor □

2. Compared to one year ago, how would you rate your health in general now?

Much better than one year ago □
Somewhat better than one year ago □
About the same as one year ago □
Somewhat worse than one year ago □
Much worse than one year ago □

The following questions are about activities you might do during a typical day. Does your health now limit you in these activities? If so, how much? Please check the box.

Activities	**Yes, Limited A Lot**	**Yes, Limited A Little**	**Not Limited At All**
3. **Vigorous activities** (such as, running, lifting heavy objects, participating in strenuous sports)			
4. **Moderate activities** (such as moving a table, pushing a vacuum cleaner, bowling or playing golf)			
5. Lifting or carrying groceries			
6. Climbing **several** flights of stairs			
7. Climbing **one** flight of stairs			
8. Bending, kneeling, or stooping			
9. Walking **more than a mile**			
10. Walking **several blocks**			
11. Walking **one block**			
12. Bathing or dressing yourself			

During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health?

	Yes	No
13. Cut down on the **amount of time** you spent on work and other activities	□	□
14. Accomplished less than you would like	□	□
15. Were limited in the **kind** of work or other activities	□	□
16. Had difficulty performing the work or other activities (for example, it took extra effort)	□	□

During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (e.g. feeling depressed or anxious)?

	Yes	No
17. Cut down on the **amount of time** you spent on work and other activities	□	□
18. Accomplished less than you would like	□	□
19. Didn't do work or other activities as **carefully** as usual	□	□

20. During the past 4 weeks, to what extent has your physical health or emotional problems interfered with your normal social activities with family, friends, neighbors, or groups?

Not at all □
Slightly □
Moderately □
Quite a bit □
Extremely □

21. How much physical pain have you had during the past 4 weeks?

None □
Very mild □
Mild □
Moderate □
Severe □
Very Severe □

22. During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)?

Not at all □
Slightly □
Moderately □
Quite a bit □
Extremely □

These questions are about how you feel and how things have been with you during the past 4 weeks. Please give one answer that is closest to the way you gave been feeling for each item.

	All of The Time	Most of the Time	Good Bit of The Time	Some of the Time	Little of the Time	None of the Time
23. Did you feel full of life?						
24. Have you been a very nervous person?						
25. Have you felt so down in the dumps that nothing could cheer you up?						
26. Have you felt calm and peaceful?						
27. Did you have a lot of energy?						
28. Have you felt downhearted and blue?						
29. Did you feel worn out?						
30. Have you been a happy person?						
31. Did you feel tired?						

32. During the <u>past 4 weeks</u>, <u>how much of the time</u> has your <u>physical health or emotional problems</u> interfered with your normal social activities (like visiting with family, friends, etc.)?

All of the time □
Most of the time □
Some of the time □
A little of the time □
None of the time □

How TRUE OR FALSE is <u>each</u> of the following statements for you?

	Definitely True	**Mostly True**	**Don't Know**	**Mostly False**	**I Definitely False**
33. I seem to get sick a lot easier than other people					
34. I am as healthy as anybody I know					
35. I expect my health to get worse					
36. My health is excellent					

Appendix H: CTQ

The following questions concern experiences you may or may not have had in the past. Listed below are descriptions of several experiences that may happen in childhood. Please read each item and decide how true that item is for your experience. Please be as honest as possible and remember there are no right or wrong answers.

	never true	rarely true	sometimes true	often true	very often true
Called names by family	O	O	O	O	O
Parents wished was never born	O	O	O	O	O
Felt hated by family	O	O	O	O	O
Family said hurtful things	O	O	O	O	O
Was emotionally abused	O	O	O	O	O
Hit hard enough to see a doctor	O	O	O	O	O
Hit hard enough to leave bruises	O	O	O	O	O
Punished with hard objects	O	O	O	O	O
Was physically abused	O	O	O	O	O
Hit badly enough to be noticed	O	O	O	O	O
Was touched sexually	O	O	O	O	O
Hurt if didn't do something sexual	O	O	O	O	O
Made to do sexual things	O	O	O	O	O
Was molested	O	O	O	O	O
Was sexually abused	O	O	O	O	O

Appendix I: SES

SES-SFV

The following questions concern sexual experiences that you may have had that were unwanted. We know that these are personal questions, so we do not ask your name or other identifying information. Your information is completely confidential. We hope that this helps you to feel comfortable answering each question honestly. Place a check mark in the box ☐ showing the number of times each experience has happened to you. If several experiences occurred on the same occasion--for example, if one night someone told you some lies and had sex with you when you were drunk, you would check both boxes a and c. The past 12 months refers to the past year going back from today. Since age 14 refers to your life starting on your 14th birthday and stopping one year ago from today.

	Sexual Experiences	How many times in the past 12 months?	How many times since age 14?
1.	**Someone fondled, kissed, or rubbed up against the private areas of my body (lips, breast/chest, crotch or butt) or removed some of my clothes without my consent *(but did not attempt sexual penetration)* by:**	0 1 2 3+	0 1 2 3+
	a. Telling lies, threatening to end the relationship, threatening to spread rumors about me, making promises I knew were untrue, or continually verbally pressuring me after I said I didn't want to.	☐☐☐☐	☐☐☐☐
	b. Showing displeasure, criticizing my sexuality or attractiveness, getting angry but not using physical force, after I said I didn't want to.	☐☐☐☐	☐☐☐☐
	c. Taking advantage of me when I was too drunk or out of it to stop what was happening.	☐☐☐☐	☐☐☐☐
	d. Threatening to physically harm me or someone close to me.	☐☐☐☐	☐☐☐☐
	e. Using force, for example holding me down with their body weight, pinning my arms, or having a weapon.	☐☐☐☐	☐☐☐☐

2.	**Someone had oral sex with me or made me have oral sex with them without my consent by:**	0 1 2 3+	0 1 2 3+
	a. Telling lies, threatening to end the relationship, threatening to spread rumors about me, making promises I knew were untrue, or continually verbally pressuring me after I said I didn't want to.	☐☐ ☐ ☐	☐ ☐ ☐ ☐
	b. Showing displeasure, criticizing my sexuality or attractiveness, getting angry but not using physical force, after I said I didn't want to.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	c. Taking advantage of me when I was too drunk or out of it to stop what was happening.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	d. Threatening to physically harm me or someone close to me.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	e. Using force, for example holding me down with their body weight, pinning my arms, or having a weapon.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐

		How many times in the past 12 months?	**How many times since age 14?**
3.	**If you are a male, check box and skip to item 4** ☐ **A man put his penis into my vagina, or someone inserted fingers or objects without my consent by:**	0 1 2 3+	0 1 2 3+
	a. Telling lies, threatening to end the relationship, threatening to spread rumors about me, making promises I knew were untrue, or continually verbally pressuring me after I said I didn't want to.	☐☐ ☐ ☐	☐ ☐ ☐ ☐
	b. Showing displeasure, criticizing my sexuality or attractiveness, getting angry but not using physical force, after I said I didn't want to.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	c. Taking advantage of me when I was too drunk or out of it to stop what was happening.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	d. Threatening to physically harm me or someone close to me.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
	e. Using force, for example holding me down with their body weight, pinning my arms, or having a weapon.	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐

4.	**A man put his penis into my butt, or someone inserted fingers or objects without my consent by:**		0 1 2 3+	0 1 2 3+
	a.	Telling lies, threatening to end the relationship, threatening to spread rumors about me, making promises I knew were untrue, or continually verbally pressuring me after I said I didn't want to.	☐☐☐☐	☐☐☐☐
	b.	Showing displeasure, criticizing my sexuality or attractiveness, getting angry but not using physical force, after I said I didn't want to.	☐☐☐☐	☐☐☐☐
	c.	Taking advantage of me when I was too drunk or out of it to stop what was happening.	☐☐☐☐	☐☐☐☐
	d.	Threatening to physically harm me or someone close to me.	☐☐☐☐	☐☐☐☐
	e.	Using force, for example holding me down with their body weight, pinning my arms, or having a weapon.	☐☐☐☐	☐☐☐☐

5.	**Even though it didn't happen, someone TRIED to have oral sex with me, or make me have oral sex with them without my consent by:**		0 1 2 3+	0 1 2 3+
	a.	Telling lies, threatening to end the relationship, threatening to spread rumors about me, making promises I knew were untrue, or continually verbally pressuring me after I said I didn't want to.	☐☐☐☐	☐☐☐☐
	b.	Showing displeasure, criticizing my sexuality or attractiveness, getting angry but not using physical force, after I said I didn't want to.	☐☐☐☐	☐☐☐☐
	c.	Taking advantage of me when I was too drunk or out of it to stop what was happening.	☐☐☐☐	☐☐☐☐
	d.	Threatening to physically harm me or someone close to me.	☐☐☐☐	☐☐☐☐
	e.	Using force, for example holding me down with their body weight, pinning my arms, or having a weapon.	☐☐☐☐	☐☐☐☐

		How many times in the past 12 months?	How many times since age 14?
6.	**If you are male, check this box and skip to item 7.** ☐ **Even though it didn't happen, a man TRIED to put his penis into my vagina, or someone tried to stick in fingers or objects without my consent by:**	0 1 2 3+	0 1 2 3+
	a. Telling lies, threatening to end the relationship, threatening to spread rumors about me, making promises I knew were untrue, or continually verbally pressuring me after I said I didn't want to.	☐☐☐☐	☐☐☐☐
	b. Showing displeasure, criticizing my sexuality or attractiveness, getting angry but not using physical force, after I said I didn't want to.	☐☐☐☐	☐☐☐☐
	c. Taking advantage of me when I was too drunk or out of it to stop what was happening.	☐☐☐☐	☐☐☐☐
	d. Threatening to physically harm me or someone close to me.	☐☐☐☐	☐☐☐☐
	e. Using force, for example holding me down with their body weight, pinning my arms, or having a weapon.	☐☐☐☐	☐☐☐☐

7.	**Even though it didn't happen, a man TRIED to put his penis into my butt, or someone tried to stick in objects or fingers without my consent by:**	0 1 2 3+	0 1 2 3+
	a. Telling lies, threatening to end the relationship, threatening to spread rumors about me, making promises I knew were untrue, or continually verbally pressuring me after I said I didn't want to.	☐☐☐☐	☐☐☐☐
	b. Showing displeasure, criticizing my sexuality or attractiveness, getting angry but not using physical force, after I said I didn't want to.	☐☐☐☐	☐☐☐☐
	c. Taking advantage of me when I was too drunk or out of it to stop what was happening.	☐☐☐☐	☐☐☐☐
	d. Threatening to physically harm me or someone close to me.	☐☐☐☐	☐☐☐☐
	e. Using force, for example holding me down with their body weight, pinning my arms, or having a weapon.	☐☐☐☐	☐☐☐☐

8. I am: Female ☐ Male ☐ My age is _____ years and _____ months.

9. Did any of the experiences described in this survey happen to you 1 or more times? Yes ☐ No ☐
What was the sex of the person or persons who did them to you?
Female only ☐
Male only ☐
Both females and males ☐
I reported no experiences ☐

10. Have you ever been raped? Yes ☐ No ☐

Appendix J: MCSDS

Instructions: Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is *True* (T) or *False* (F) as it pertains to you personally.

_____ 1. Before voting I thoroughly investigate the qualifications of all the candidates.

_____ 2. I never hesitate to go out of my way to help someone in trouble.

_____ 3. It is sometimes hard for me to go on with my work if I am not encouraged.

_____ 4. I have never intensely disliked anyone.

_____ 5. On occasion I have had doubts about my ability to succeed in life.

_____ 6. I sometimes feel resentful when I don't get my way.

_____ 7. I am always careful about my manner of dress.

_____ 8. My table manners at home are as good as when I eat out in a restaurant.

_____ 9. If I could get into a movie without paying and be sure I was not seen I would probably do it.

_____ 10. On a few occasions, I have given up doing something because I thought too little of my ability.

_____ 11. I like to gossip at times.

_____ 12. There have been times when I felt like rebelling against people in authority even though I knew they were right.

_____ 13. No matter who I'm talking to, I'm always a good listener.

_____ 14. I can remember "playing sick" to get out of something.

_____ 15. There have been occasions when I took advantage of someone.

_____ 16. I'm always willing to admit it when I make a mistake.

_____ 17. I always try to practice what I preach.

_____ 18. I don't find it particularly difficult to get along with loud-mouthed, obnoxious people.

_____ 19. I sometimes try to get even rather than forgive and forget.

_____ 20. When I don't know something I don't at all mind admitting it.

_____ 21. I am always courteous, even to people who are disagreeable.

_____ 22. At times I have really insisted on having things my own way.

_____ 23. There have been occasions when I felt like smashing things.

_____ 24. I would never think of letting someone else be punished for my wrongdoings.

_____ 25. I never resent being asked to return a favor.

_____ 26. I have never been irked when people expressed ideas very different from my own.

_____ 27. I never make a long trip without checking the safety of my car.

_____ 28. There have been times when I was quite jealous of the good fortune of others.

_____ 29. I have almost never felt the urge to tell someone off.

_____ 30. I am sometimes irritated by people who ask favors of me.

_____ 31. I have never felt that I was punished without cause.

_____ 32. I sometimes think when people have a misfortune they only got what they deserved.

_____ 33. I have never deliberately said something that hurt someone's feelings.