Published in final edited form as:

J Sex Res. 2012 ; 49(5): 423–433. doi:10.1080/00224499.2011.585524.

Validation of the Traumatic Sexualization Survey for Use with Heterosexual Men

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Abstract

Two studies were conducted to validate the Traumatic Sexualization Survey (TSS) for use with heterosexual men. In Study 1, an online sample of men completed the TSS and measures used to examine convergent and divergent validity. An exploratory factor analysis revealed that the TSS had a similar factor structure in men as previously found in women. The TSS demonstrated adequate reliability and validity with men. In Study 2, male STD clinic patients completed the TSS and a measure of child maltreatment. Men with a child sexual abuse (CSA) history reported higher levels of traumatic sexualization than men with a history of only physical abuse or no abuse, providing some preliminary evidence of construct validity. The TSS appears to be an adequate measure of maladaptive attitudes that have been conceptually linked to CSA impact in men.

Keywords

traumatic sexualization; child sexual abuse; sexual behavior; gender; sexual adjustment

The past thirty years has seen a burst of research related to child sexual abuse (CSA) prevalence and the scope of its impact. Estimated prevalence rates of CSA in the United States range from 4-10% of men and 17-51% of women (Pereda, Guilera, Forns, & Gomez-Benito, 2009). Further, CSA has been repeatedly linked to increased risk for a range of medical, psychological, and behavioral problems in adulthood (e.g., Maniglio, 2009). In spite of this accumulation of literature, surprisingly little progress has been made in understanding underlying processes which contribute to the increased risk of negative outcomes observed in CSA victims (Coffey, Leitenberg, Henning, Turner, & Bennett, 1996). One such important process may be the formation of problematic sexual attitudes in the wake of the CSA experience.

Traumagenic Dynamics

The Traumagenic Dynamics Model was proposed in an effort to address the need for a comprehensive theoretical framework of CSA impact (Finkelhor & Browne, 1985). The model proposes that four overarching dynamics (traumatic sexualization, betrayal, powerlessness, and stigmatization) work in concert to cultivate and maintain CSA victims'

problems by altering their cognitive or emotional orientations towards the world. Within the traumagenic model, impacted domains of functioning may be understood based on their relationship to one or more of these dynamics. Though not necessarily exclusive to CSA, the dynamics combine to form a unique profile that is characteristic of many CSA victims.

Traumatic Sexualization

Of the four dynamics, traumatic sexualization is believed to most distinguish CSA victims from victims of other forms of abuse due to the sexual nature of CSA, and as such, traumatic sexualization is particularly important to advancing the understanding of CSA impact (Matorin & Lynn, 1998). This dynamic represents the consequence of a process by which children's sexual feelings and attitudes become distorted in response to abuse. The process leads to the manifestation of a sexuality that is developmentally inappropriate and interpersonally problematic.

The traumagenic model provides several possible routes by which traumatic sexualization occurs (Finkelhor & Browne, 1985). For example, when children are rewarded for sexual behavior with affection or gifts, they begin to identify sexual behaviors as strategies used for manipulating others. Interaction with perpetrators may also lead to misconceptions or confusion related to sexual morality and what constitutes appropriate behavior. Further, a perpetrator's focus on a specific part of anatomy may lead victims to place exaggerated meaning on that body part or associate it with negative emotions. A final important path to traumatic sexualization is the pairing of frightening memories with various forms of sexual activity.

Within the Traumagenic Dynamics Model, observable problems that have been related to CSA can be organized or conceptualized based on their relationship with one or more of the four dynamics. Indeed, there are a number of behaviors that have been theoretically linked to traumatic sexualization: In childhood, repetitive masturbation, sex play, and a desire to engage in sexual acts with other children are possible outcomes of the traumatic sexualization process (Finkelhor & Browne, 1985). Possible effects of traumatic sexualization in adulthood may include an increase in risky sexual behavior, sexual revictimization (i.e., experiencing sexual assault or rape), or perpetration of sexual aggression. Sexual dysfunction, low sexual desire, and body dissatisfaction in adulthood are also theoretically linked to traumatic sexualization. The experience of CSA often appears to lead to an enduring shift in experiences and beliefs related to several sexual domains; a shift which often persists into adulthood (Finkelhor & Browne, 1985).

Though the Traumagenic Dynamics Model and the traumatic sexualization construct were introduced in an effort to improve applied conceptualizations and contribute to research on the processes underlying CSA impact, these concepts have received limited research attention. The model has received some support through applications as a theoretical framework for group therapy approaches (e.g., Common, 1989; Scott, 1992). Further, it has been utilized to examine coping strategies which mediate CSA impact (Walsh, Fortier, & DiLillo, 2010). Though the four dynamics are occasionally cited as a theoretical explanation for CSA impact, they have rarely been studied directly. The limited adoption of traumagenic

dynamics in research may be partially due to the absence of a validated measure of the dynamics themselves.

Measuring Traumagenic Dynamics

When initially introducing their model, Finkelhor and Browne (1985) recognized the importance of developing instruments to assess the impact of CSA in the context of the four dynamics. The authors suggested that such instruments would be essential tools for achieving a more systematic understanding of sexual abuse impact, would be beneficial in applied settings, and would advance CSA research as a whole. They argued that developing a reliable method of measuring the dynamics would allow CSA researchers to better answer questions related to the importance of perpetrator characteristics, abuse severity, resilience, and other factors in the context of victim outcomes.

Twenty-five years after the model was first introduced, only two published studies have attempted to develop measures aimed at assessing specific traumagenic factors. The first measure developed was the Trauma-Related Beliefs Questionnaire (TRBQ), an instrument which assesses victims' beliefs based on the four traumagenic dynamics (Hazzard, 1993). Though research with the TRBQ provides some support for the traumagenic model, the measure has not been fully validated (Matorin & Lynn, 1998). Further, in the TRBQ subscale measuring traumatic sexualization, traumatic sexualization is conceptualized narrowly as fear, dislike, and avoidance of sex. According to Finkelhor and Browne's (1985) conceptualization, traumatic sexualization should include sexual problems beyond avoidance of sex, including sexual preoccupation and attempts to manipulate others using sexuality.

The Traumatic Sexualization Survey (TSS) is another measure designed specifically to assess for sexual impact within the traumagenic model (Matorin & Lynn, 1998). The TSS was developed to assess cognitive and behavioral dimensions associated with traumatic sexualization. Items for the measure were developed with assistance from CSA experts including David Finkelhor.

The final version of the TSS is a 38-item self-report measure, validated with a large group of heterosexual undergraduate women (Matorin & Lynn, 1998). Items consist of statements, which participants are asked to rate on a scale ranging from 1 (*Never true*) to 5 (*Always true*). The TSS was found to have a four-factor structure. Avoidance and Fear of Sexual and Physical Intimacy is the first factor and includes items such as, "I am afraid of sex." The second factor is Thoughts About Sex, which is comprised of items such as, "I can't get my mind off sex." The third factor is The Role of Sex in Relationships and includes items such as, "men base their relationships with me on sex." The final factor is Attraction/Interest and Sexuality and contains items such as, "My sexuality is what attracts people to me." (p. 271). The TSS demonstrated good convergent validity when compared to established measures of sex guilt, sexual functioning, sexual attitudes, and sexual behavior. It also demonstrated good discriminant validity when compared to measures of social desirability and general psychopathology.

Overall, the TSS serves to assess components of the traumatic sexualization construct and has shown some promise as a CSA research tool. However, it is not without limitations. One

major limitation of the TSS is that, in the original published study, the measure failed to distinguish between women with childhood physical abuse histories and those with CSA histories. This is problematic considering the assumption within the traumagenic model that traumatic sexualization is the dynamic most unique to CSA.

Another major limitation of the TSS is that it is restricted to use with women. Studies have consistently found high prevalence rates of CSA in the male population, with estimates as high as 16% (Finkelhor, Hotaling, Lewis & Smith, 1990). Unfortunately, this population has been largely overlooked, forcing researchers, clinicians, and educators to generalize research results obtained from female victims to male victims. However, limited research that has been conducted with male victims of CSA suggests that sex differences may exist related to consequences (e.g., Holmes, 2008; Paul, Catania, Pollack, & Stall, 2001; Voisin, 2005).

The authors of the TSS chose to direct the item content specifically toward women because “most of the empirical and theoretical literature on [the] topic has focused on that population” (Matorin & Lynn, 1998; p. 265). The authors go on to suggest that as more information becomes available, the survey should be expanded to include other populations. Though male CSA continues to be understudied, it is our contention that the TSS may serve as a valuable tool for addressing this gap in the literature and may serve to advance understandings of sexual abuse in men. For this reason, the primary goal of this research was to adapt the TSS for use with men, to evaluate the reliability and validity of the adapted measure, and to assess its utility in distinguishing between men with and without a CSA history.

Present Research

Our goal was to test the factor structure of a version of the traumatic sexualization survey adapted for use with heterosexual men (TSS-M). We also aimed to establish convergent and divergent validity of the adapted measure. In particular, to provide evidence of validity, we expected the TSS to be moderately to strongly correlated with a prior measure of traumatic sexualization (i.e., Hazzard's 1993 subscale). Additionally, we expected the TSS-M to be moderately to strongly correlated with measures of dysfunctional sexual behavior, sexual guilt, sexual self-esteem, sexual preoccupation, and sexual depression, as traumatic sexualization is theorized to be closely related to these concepts. To provide evidence of discriminant validity, we expected the TSS to be, at most, weakly related to measures of social desirability, general psychological distress, and masculine gender role, as traumatic sexualization is theorized to be distinct from these concepts. We also sought to examine the relationship between CSA history and TSS scores in two samples of men (an online convenience sample in Study 1 and a sample of men presenting to urban STD clinics in Study 2); theoretically, the TSS should distinguish between men with and without a history of CSA. Thus, if the TSS distinguished between men with a CSA history and men with a history of child physical abuse or no abuse, it would provide evidence of construct validity.

Study 1

Methods

Participants—Participants were 329 men who were recruited from advertisements placed on Craigslist websites in cities throughout the country and from websites that list online psychological studies. Advertisements invited heterosexual men, ages 18 and over, to follow a link to complete an anonymous online questionnaire. Of the 583 participants who started the questionnaire, 329 eligible men completed at least 85% of the Traumatic Sexualization Survey and were included in the sample. Participants' ages ranged from 18 to 68 ($M = 29.88$; $SD = 11.79$). The majority of participants (91.2%) were from the United States. The remaining participants were from the UK (2.7%), Canada (1.2%), or some other country (3.6%); four participants (1.2%) did not identify their country. The majority of participants identified themselves as White/European American (72.9%). The remaining participants identified as Black/African American (8.8%), Asian/Asian American (5.5%), American Indian/Native American (2.7%); or biracial (2.7%); 6.4% identified their race as other, and 0.9% did not respond to the question about race. Thirty-nine participants (11.5%) identified their ethnicity as Hispanic/Latino. Based on the 280 participants who provided information about their education, the average education of participants was 14.89 years ($SD = 2.80$).

Measures

The Traumatic Sexualization Survey-Male Version (TSS-M): For the sake of the initial factor analysis, the TSS-M retained the 38-items as they were published in the original TSS study (Matorin & Lynn, 1998). The only modification made was to change pronouns in order to make them appropriate for heterosexual men (e.g. “men base their relationship with me on sex” was changed to “women base their relationships with me on sex”).

Demographic measure: A 15-item measure was developed for this study to collect basic demographic information. The measure included questions related to age, home country, education level, and race and ethnicity.

The Traumatic Sexualization Subscale of the TRBQ: The TRBQ (Hazzard, 1993) assesses beliefs theorized to be associated with the Traumagenic Model. The TRBQ includes a 7-item subscale designed to assess traumatic sexualization. The subscale includes items assessing dislike, fear, and avoidance of sex, such as, “I hate sex.” Items are rated on a scale from 0 (*Absolutely untrue*) to 4 (*Absolutely true*). The subscale has demonstrated good internal consistency ($\alpha = .87$; Hazzard, 1993).

Dysfunctional Sexual Behavior Scale (DSBS): The DSBS is a 7-item self-report measure designed to assess for problematic sexual behaviors (Briere & Runtz, 1990). It includes items such as “I have gotten in trouble because of my sexual behavior.” Items are rated on scale from 1 (*Not at all true*) to 5 (*Very often true*). The scale has shown adequate internal consistency ($\alpha = .64$; Briere & Runtz, 1990) and was correlated with TSS scores in a sample of women (Matorin & Lynn, 1998).

The Mosher Sex-Guilt Scale (MSGS): The MSGS is a subscale of the Revised Mosher Guilt Inventory (Mosher, 1988). The scale assesses participants' guilt about sexual thoughts, feelings, and behaviors using 50 items arranged in pairs of sentence completion responses; for example, “When I have sexual dreams...I sometimes wake up feeling excited” and “When I have sexual dreams...I try to forget them” (p. 153). Each sentence completion is rated on a scale from 1 (*Not at all true*) to 6 (*Extremely true*). The MSGS was significantly related to scores on the TSS in a sample of women (Matorin & Lynn, 1998).

The Sexuality Scale: The Sexuality Scale (Snell & Papini, 1989) is a 30-item measure and includes three subscales measuring sexual self-esteem (e.g., “I am a good sexual partner”), sexual preoccupation (e.g., “I think about sex more than anything else”), and sexual depression (e.g., “I feel down about my sex life”). Items are rated on a scale from 0 (*Disagree*) to 4 (*Agree*). The subscales of the Sexuality Scale have demonstrated sound psychometric properties (Snell & Papini, 1989).

The Balanced Inventory of Desirable Responding (BIDR): Social desirability was assessed using the BIDR (Paulhus, 1991). This social desirability scale consists of 40 items, and measures two components of desirable responding—self-deceptive positivity (i.e., a tendency to give honest but positively-biased responses; e.g., “I never regret my decisions”) and impression management (i.e., a tendency to engage in deliberate positive self-presentation to others; e.g., “I never cover up my mistakes”). Participants rate items on a scale from 1 (*Not true*) to 7 (*Very true*). Participants receive one point for each item that is endorsed with a 6 or a 7. The scale has demonstrated adequate reliability ($\alpha = .68-.86$) and test-retest correlations over a 5 week period (.65-.69; Paulhus, 1991).

The Depression, Anxiety, Stress Scales (DASS): General psychological distress was assessed using the short version of the DASS (DASS-21, Henry & Crawford, 2005; Lovibond & Lovibond, 1995). This 21-item self-report measure assesses for symptoms of depression, anxiety and stress by asking participants to reflect on their mood over that past week and to rate items such as “I felt down-hearted and blue” on a scale ranging from 1 (*did not apply to me at all*) to 4 (*applied to me very much, or most of the time*). These scales have demonstrated strong psychometric properties (e.g., Antony, Bieling, Cox, Enns, & Swinson, 1998).

Auburn Differential Masculinities Inventory (ADMI): The ADMI (Burk, Burkhart, & Sikorski, 2004) is designed to measure exaggerated traditional masculine attitudes in men. Items are rated on a 5-point scale from 1 (*Very much like me*) to 5 (*Not at all like me*). The ADMI total score has demonstrated adequate reliability ($\alpha = .80$). The ADMI includes five subscales; only two subscales were used in this study because they were deemed most relevant to the items in the TSS-M. The Hypermasculinity Scale includes 17 items that assess exaggerated gender role performance (e.g., “I don't mind using verbal or physical threats to get what I want”). The Sexual Identity Scale includes 14 items that assess a permissive and aggressive approach to male sexuality (e.g., “I think it's okay for men to be a little rough during sex”).

The Childhood Trauma Questionnaire (CTQ): Experiences of CSA and child physical abuse were assessed with the CTQ (Bernstein, Fink, Handelsman, & Foote, 1994). The CTQ is a 28-item self-report measure designed to assess for a history of emotional, physical, and sexual abuse as well as neglect. Participants are presented with statements related to various forms of abuse and asked to rate the statements from 1 (*Never true*) to 5 (*Very often true*). For our analyses, we considered participants to have experienced CSA if they rated any of the five sexual abuse items (e.g., “When I was growing up, someone tried to make me do sexual things or watch sexual things”) higher than 1, and we considered them to have experienced childhood physical abuse if they rated any of the five physical abuse items (e.g., “When I was growing up, people in my family hit me so hard that it left me with bruises or marks”) greater than 1.

Procedure: Interested participants followed a hyperlink imbedded in the advertisements, which led them to an online form. After providing informed consent, participants were directed to the anonymous survey. The survey took approximately 35 minutes to complete. Participants had the opportunity to enter into a drawing for a \$100 gift card; contact information was entered into a form separate from the survey responses to preserve anonymity. The methods of this study were approved by the Institutional Review Board at the University of Missouri-St. Louis.

Results

Factor analysis—Exploratory factor analysis using a Varimax rotation was conducted on the items of the TSS-M in order to determine the factor structure of the scale. Data were used from the 297 men who had no missing data on the TSS-M. Seven factors had eigenvalues greater than 1; however, the scree plot suggested that a three factor solution was the best fit for the data (i.e., three factors had eigenvalues greater than or equal to 3.26 and the remaining eigenvalues were less than or equal to 1.40).

The three factor solution accounted for 48.98% of the variance. Items were retained if they had loadings of at least .50 on one factor and no loadings greater than .40 on any other factor. Using these criteria, one item from the original scale was removed for use with men (“Thoughts of sex interfere with my daily life”); for this item, the highest factor loading was .45 on Factor 2.

The final three factors combined to form a 37-item version of the TSS-M (See Table 1). The content of the first and second factors from the original TSS for women remained intact with the exception of the one deleted item. As a result, factor 1 of the TSS-M retained the label “Avoidance and Fear of Sexual and Physical Intimacy” and contained items related to avoiding sex. Factor 2 retained the label “Thoughts About Sex” and contained items pertaining to sexual preoccupation and intrusive sexual thoughts. The remaining two factors from the original TSS for women collapsed to form a single factor for men. This third factor was labeled “Sexual Self-Concept” because it contained items relating to the degree to which individuals define themselves and their relationships based on sexuality and sexual behavior. Chronbach's alpha scores were calculated for each of the three factors, verifying internal consistency (see Table 1).

TSS-M descriptive statistics—To calculate subscale scores on the TSS-M, missing values were replaced with the series mean for each item, and mean scores were calculated for all items in each factor. Descriptive statistics for the subscale scores are included in Table 2.

We compared the men's mean scores on Sexual Avoidance and Sexual Thoughts subscales with the mean scores from the sample of college women in the original TSS validation study (Matorin & Lynn, 1998). The men in our sample scored significantly lower on the Sexual Avoidance subscale ($M = 1.55$; $SD = .60$) than the women in the original study ($M = 2.51$; $SD = .70$), $t(569) = 17.60$, $p < .001$. The men in our sample scored significantly higher on the Sexual Thoughts subscale ($M = 3.27$; $SD = .84$) than the women in the original study ($M = 2.38$; $SD = .57$), $t(569) = 14.24$, $p < .001$.

Prior to further analyses, a log transformation was used to correct for distribution problems observed in the Sexual Avoidance subscale (skewness = 1.66; kurtosis = 3.07). The transformed value was used for the remaining analyses.

Convergent and divergent validity—For convergent and divergent validity analyses, participants were only included if they had completed at least 85% of items on each scale ($N = 201$). For each scale, missing values were replaced with series means. Bivariate correlations between the TSS-M and the measures of convergent and divergent validity are presented in Table 3.

To assess convergent validity, we correlated the subscales of the TSS-M with a prior measure of traumatic sexualization (a single subscale of the TRBQ) and with measures of dysfunctional sexual behaviors, sexual guilt, sexual self-esteem, sexual preoccupation, and sexual depression. These constructs were theorized to be closely related to the construct of traumatic sexualization; thus, we expected to find moderate to strong correlations (i.e., greater than or equal to .30) between the TSS and these measures. In all cases, at least one of the TSS-M subscales had a moderate correlation with the targeted constructs. Complete results are presented in Table 3.

Discriminant validity was assessed by comparing the three factors of the TSS-M with measures of depression, anxiety, and stress and socially desirable responding, as the TSS-M should be theoretically distinct from these constructs. Additionally the TSS-M was compared to measures of masculine gender-role ideology; because the TSS was originally developed for women, we wanted to ensure that the content of the items was not “too feminine” to be comfortably endorsed by men who adhere strongly to traditional gender roles. We expected to find weak to moderate correlations (i.e., less than or equal to .30) between the TSS and the measures of divergent validity. With the exception of Sexual Avoidance, which showed moderate correlations with anxiety, depression, and stress (.38-.39), and Sexual Self-Concept, which was moderately correlated with masculine sexual identity (.37), the scales demonstrated adequate divergent validity. Complete results are presented in Table 3.

Comparison of TSS-M scores as a function of abuse history—Participants were classified as victims of CSA, child physical abuse, both, or neither based on their responses to the CTQ. Of the 329 participants in the study, 230 men responded to enough CTQ items to allow us to accurately classify them based on their abuse history. A MANOVA was conducted with abuse group as the independent variable and the three subscales of the TSS-M as the dependent variable. The overall model was significant, Wilks' $\Lambda = 0.86$, $F(3,226) = 3.81$, $p < .001$, $\eta_p^2 = .05$. Follow-up ANOVAs were conducted. Consistent with the Bonferroni method, alpha was set at .017. There was a significant difference among the four groups in their scores on the Sexual Self-Concept subscale, $F(3,226) = 6.90$, $p < .001$, $\eta_p^2 = .08$, but not on the other two subscales. Follow-up pairwise comparisons were conducted with alpha set to .004 as prescribed by the Bonferroni method. Men who reported experiencing both child physical and sexual abuse endorsed a significantly more problematic sexual self-concept than men who had experienced neither physical nor sexual abuse. There were no other differences among the groups (see Table 2).

Discussion

Overall, the results of Study 1 indicate that the TSS-M is a valid measure of attitudes relating to traumatic sexualization. The scale demonstrated convergent validity with scales that measure constructs which are conceptually related to traumatic sexualization, and it demonstrated divergent validity with measures of social desirability and psychological distress. The results of study 1 also indicate that a three factor solution best accounts for the variance in the TSS-M suggesting that the scale contains three distinct subscales relating to traumatic sexualization. The study also provided some modest support for a possible difference in men's responses to the Sexual Self-Concept subscale as a function of their child history of sexual and physical abuse. However, in Study 1, we did not find support for the fact that CSA is uniquely associated with traumatic sexualization; in other words, traumatic sexualization did not distinguish between victims of CSA and victims of childhood physical abuse.

Study 2

Methods

Participants—Participants for the second study were 379 unmarried, heterosexual men between the ages of 18 and 30 ($M = 23.53$; $SD = 3.56$) recruited from two urban STD clinics in Indianapolis, Indiana and St. Louis, Missouri. These clinics serve low-income patients by providing free or inexpensive STD testing and counseling services. After eliminating 40 participants who completed less than 85% of the TSS-M and 11 participants who provided inadequate information on the CTQ, 328 participants remained in the analyses. We chose to recruit participants from STD clinics because prior studies have found unusually high rates of CSA among male STD clinic patients (Senn, Carey, Vanable, Coury-Doniger, & Urban, 2006).

Most of the participants identified themselves as Black/African American (78.0%), or White/European American (18.0%). Participants' educational level was estimated based on the number of years of education they had completed including elementary, secondary, and

post-secondary school. Participants who indicated that they had completed a GED, but did not specify years of education were coded as having completed the equivalent of 12 year of education. Thus, for the 292 men who provided information about education, the average years of education was 12 years, with a range of 3 to 19.

Measures—The 37-item TSS-M was used with the same three-factor structure obtained in the first study. In this sample, Chronbach's alphas for the three factors ranged from .80 to .89, suggesting that the factors were internally consistent with this sample. Demographic information was obtained using the same measure that was used in the first study. As in Study 1, the CTQ was used to assess for a history of CSA and child physical abuse.

Procedure—Men who indicated an interest in participating in the study were given a questionnaire to complete in the waiting room of the STD clinics. Participants completed the measures pertaining to this study along with other measures that were part of a larger study of men's sexual risk-taking. Completing the questionnaire packet took approximately 45 minutes. Participants were paid \$15 for participation in the study. Responses to questionnaires were anonymous; however, participants had the option to forgo anonymity in order to volunteer for future studies on related topics. The methods of this study were approved by the Institutional Review Boards at the University of Missouri-St. Louis and the Indiana University School of Medicine.

Results

Descriptive statistics—Descriptive statistics for the TSS-M are presented in Table 2. Tests of skewness and kurtosis were acceptable for all three factors in this sample (all values fell between -1 and 1), so no transformations were performed. We compared the TSS-M scores in this STD clinic sample with the scores from our online Study 1 sample. The STD clinic sample scored significantly higher than the online sample on the Sexual Avoidance and Sexual Self-Concept subscales, $t(655) = 9.22, p < .001$ and $t(655) = 7.24, p < .001$, respectively. However, the STD clinic sample scored significantly lower than the online sample on the Sexual Thoughts subscale, $t(655) = 11.27, p < .001$. More than half (54.3%) of the STD clinic participants endorsed some form of CSA, and 85.7% endorsed a history of physical abuse in childhood.

Comparison of TSS-M scores as a function of abuse history—Participants were classified as victims of CSA, child physical abuse, both, or neither based on their responses to the CTQ. Only seven participants reported experiencing sexual abuse in the absence of physical abuse; thus, we combined all participants who had experienced sexual abuse (either with or without physical abuse). A MANOVA was conducted with participants' abuse classification (i.e., CSA with or without physical abuse, physical abuse with no CSA, or no abuse) as the independent variable and the three subscales of the TSS-M as the dependent variable. The overall model was significant, Wilks' $\Lambda = 0.85, F(2,325) = 9.46, p < .001, \eta_p^2 = .09$. Follow-up ANOVAs were conducted with alpha set at .017. There was a significant difference among the three groups in their scores on the Sexual Avoidance subscale, $F(2,328) = 6.65, p = .001, \eta_p^2 = .04$, the Sexual Thoughts subscale, $F(2,328) = 23.20, p < .001, \eta_p^2 = .13$, and the Sexual Self-Concept subscale, $F(2,328) = 20.14, p < .001, \eta_p^2 = .11$.

Follow-up pairwise comparisons were conducted using the Bonferroni correction with alpha set to .006. For Sexual Avoidance, men who reported sexual abuse (with or without physical abuse) reported significantly more sexual avoidance than men who reported physical abuse only; there were no other differences among the groups on sexual avoidance. For Sexual Thoughts, men who reported sexual abuse reported more disruptive sexual thoughts than men who reported only physical abuse and than men who reported no abuse; there was no difference between men who reported only physical abuse and men who reported no abuse. Finally, for Sexual Self-Concept, men who reported sexual abuse reported a more problematic sexual self-concept than men who reported only physical abuse and men who reported no abuse; there was no difference between men who reported only physical abuse and men who reported no abuse. These results are summarized in Table 2.

Discussion

The central goal of the present research was to assess the reliability and validity of an adapted version of the TSS to measure traumatic sexualization in men. The results of our two studies indicate that the TSS-M appears to be a reliable and valid measure of maladaptive sexual attitudes in men. The attitudes measured by the TSS-M seem to be theoretically consistent with CSA impact as outlined by the Traumagenic Dynamics model (Matorin & Lynn, 1998). Although the original TSS was developed for use with female CSA victims, the revised male version performed similarly to the female version in most respects.

Strengths of the TSS-M

This research provides support for the construct validity of traumatic sexualization as measured by the TSS-M. As expected, the Sexual Avoidance subscale of the TSS-M was significantly correlated with a prior measure of traumatic sexualization (Hazzard, 1993), which focused specifically on dislike and fear of sex, and with sex-guilt, a construct that has been repeatedly linked to traumatic sexualization (e.g., Matorin & Lynn, 1998). Dysfunctional sexual behavior, another construct theoretically linked to traumatic sexualization, was also significantly correlated with the Sexual Self-Concept and Thoughts about Sex subscales of the TSS-M. These correlations with measures of convergent validity are similar to the results found in the TSS original validation study with women (Matorin & Lynn, 1998). Moreover, divergent validity was established in that no significant correlations were found between the TSS-M and measures of social desirability. Also as expected, Thoughts about Sex and Sexual Self-Concept were not substantially correlated with general psychological distress.

The validity of the TSS-M is also dependent on its ability to distinguish between sexually abused and non-abused men. These studies provided some partial evidence for the fact that sexually abused men did endorse higher levels of traumatic sexualization than physically abused or non-abused men. In Study 1, among our online convenience sample, men who had experienced both sexual and physical abuse had higher scores on the Sexual Self-Concept Scale than did men who had no physical or sexual abuse history. However, there was no difference between abuse groups on the other subscales, and there was no difference among men who had experienced only CSA versus men who had experienced only physical abuse.

Only a small minority of men experienced sexual abuse in the absence of any physical abuse, which could potentially provide a partial explanation for our failure to observe any significant differences between groups.

However, in Study 2, when we evaluated a sample of men with higher rates of physical and sexual abuse, we found that men who had experienced sexual abuse (with or without physical abuse) had moderately higher scores on all subscales of the TSS-M than men who had experienced only physical abuse. This finding, along with the lack of significant differences in TSS-M scores between physically abused men and men with no history of abuse, provides some support for the possibility that the TSS-M factors are measuring thoughts and behaviors unique to men with a history of CSA.

A final strength of the TSS-M identified by these studies is that it shows versatility across a range of settings and demographics. The factor structure obtained from a general online sample in Study 1 continued to function as expected in Study 2 in a sample with less education, a different racial composition, and higher rates of sexual abuse. Additionally, the TSS-M seems to be useful in detecting differing levels of traumatic sexualization across different populations. Men who were recruited from STD clinics scored higher on two out of three TSS-M subscales as compared to a general online sample of men. It makes sense that the STD clinic sample would score higher on the TSS-M than the online sample given that the clinic sample had particularly high rates of CSA and given that sexual risk-taking (e.g., unprotected sex and sex with multiple partners) is theorized to be associated with traumatic sexualization (e.g. Finkelhor & Browne, 1985).

Potential Weaknesses of the TSS-M

We expected the subscales of the TSS-M to be distinct from measures of general psychological distress or psychopathology. In the case of Sexual Avoidance, moderate correlations were found with measures of anxiety, stress, and depression. This finding is not entirely surprising, as it is reasonable to expect that sexual avoidance might be related to depression- or anxiety-related experiential avoidance more broadly. The fact that these were moderate rather than strong associations suggests that the Sexual Avoidance subscale of the TSS is measuring something related to but distinct from general psychological distress.

Also contrary to expectations, the Sexual Self-Concept subscale of the TSS-M was not correlated with any of our measures of convergent validity except a measure of dysfunctional sexual behavior. Additionally, this subscale was fairly strongly correlated with one measure of discriminant validity—a measure of masculine sexual identity. These problems with convergent and divergent validity raise the question of whether, in men, the Sexual Self-Concept subscale is actually measuring a stereotypically masculine approach to sexuality rather than an essential component of traumatic sexualization. However, this subscale was successful in distinguishing between men who had experienced child abuse and men who had not experienced child abuse; in fact, in Study 1, it was the only subscale of the TSS-M to do so. Thus, we did find some evidence of construct validity for this subscale. It is possible that the association between Sexual Self-Concept and masculine sexuality identity can be explained by the fact that men who are sexually abused as children may be prone to both traumatic sexualization and also to a compensatory over-performance of

masculine sexual expression. Alternatively, it is also possible that some other factor, such as low socioeconomic status, may place individuals at increased risk for CSA and may also increase their likelihood of developing a masculine sexual identity. Clearly, more research is needed to explore these and other possibilities.

As noted above, we did find some evidence in Study 2 that the TSS-M may distinguish between victims and non-victims of CSA in a high-risk STD clinic sample. However, the TSS-M did not clearly distinguish between men with and without a history of CSA in our Study 1 online sample of men. Further, our Study 2 sample did not include enough men who had experienced sexual abuse in the absence of physical abuse to allow us to adequately assess whether the TSS-M distinguished between men who had experienced *only* sexual abuse and men who had experienced *only* physical abuse; future research is needed to address that question and to further explore the association between TSS-M scores and CSA among a variety of general and high-risk male samples. This is important because traumatic sexualization should theoretically be tied specifically to experiences of CSA. Notably, in their validation study with women, Matorin and Lynn (1998) did not find differences in TSS scores among women with a history of only CSA and women with a history of only physical abuse.

It is worth noting that some argue that comparisons between victims of sexual abuse only and victims of physical abuse only are somewhat artificial in that single forms of abuse rarely happen in isolation (e.g. Edwards, Holden, Felitti, & Anda, 2003; Ney, Fung, & Wickett, 1994). Our results are consistent with this argument, as only a small minority of participants reporting sexual abuse denied experiencing physical abuse as well. Though traumatic sexualization is conceptually linked to the sexual abuse experiences, it may be useful for future studies to consider the cumulative impact of multiple forms of abuse and neglect to better understand the potential consequences of complex abuse histories on traumatic sexualization.

Limitations of these Studies

In these studies, we have extended the work of Matorin and Lynn (1998) by providing initial validation of the original TSS for use with men. However, there is still a sizable group of sexual abuse victims for whom neither form of this measure applies. As with the original female version of the TSS, the modified TSS-M was not written or validated to measure attitudes about sex with same-gendered individuals. This limitation prevents adequate assessment of homosexual or bisexual victims of CSA. In the future it would be helpful to develop a gender-neutral version of the measure that makes no assumptions about the gender or sexual orientation of participants or their partners.

Another limitation to the current study is the measure used to assess for CSA history. The CTQ includes only a few very general items assessing sexual abuse history, and it provides no measurement of important contextual factors such as type or duration of abuse, age at the time of victimization, or relationship to the perpetrator. Future research is needed to determine the relationship between traumatic sexualization and multiple factors related to CSA severity and context.

Possible Differences in Traumatic Sexualization Between Men and Women

An important implication of this research is, not only that traumatic sexualization is a valid construct for men, but also that it may manifest slightly differently for men than for women.

Unlike the original TSS study with women, in which a four factor solution was found, the TSS-M performed best with a three factor solution. Sexual Self-Concept emerged in place of two separate factors for women related to the “role of sex in relationships” and “attraction and sexuality.” For men, these factors combined to form a single factor that seemed to measure an over-emphasis on the role of sexuality and sexual behavior in men's conceptions of themselves and their relationships.

In Study 1, the men in our sample scored significantly lower on the Sexual Avoidance factor than the women in the original validation study. In fact, there was very limited variance on this subscale in our studies; few men in either of our two samples endorsed high levels of sexual avoidance. Sexual avoidance may play less of a role in male traumatic sexualization than in female traumatic sexualization, or at the very least, sexual avoidance may manifest differently in men and women. The items on this subscale also may be problematic for men; men may be resistant to agree to statements such as “I am afraid of sex” because social expectations suggest that men should always be eager for sex.

Men in Study 1 scored significantly higher on the sexual thoughts subscale than women in the original validation study. Men may be less likely than women to conceptualize items such as “Sexual thoughts preoccupy my mind” as problematic, and thus these items may be more frequently endorsed by men than by women. Consistent with the idea that the items on this subscale may be relatively normative for men, Thoughts about Sex was positively associated with sexual self-esteem in Study 1, suggesting that Thought about Sex may not be entirely negative for men.

Though future research is needed to directly compare men and women on the TSS and to further examine gender differences in traumatic sexualization, these results suggest that generalizing findings from CSA research conducted with female victims to male victims should be done with caution. More research focusing on male victims of CSA is clearly needed. Additionally, in the future, it may be necessary to reevaluate the ability of the TSS-M to fully capture all theorized aspects of traumatic sexualization among men. Additional items or subscales may need to be added or items may need to be altered as more information is gathered about the consequences of CSA for male victims.

Conclusions

Overall, the results of our initial validation of the TSS-M provide support for the usefulness of the theoretical construct of traumatic sexualization in men and for the role of traumatic sexualization in negative outcomes related to CSA. We also found evidence that the TSS-M is a useful measure of these negative outcomes.

This is one of the first empirical evaluations of traumatic sexualization in male sexual abuse victims. More research is needed to understand the relationship between traumatic sexualization in men and other specific sexual behaviors in adulthood such as risky or unsafe

sex, sexual revictimization, and sexual aggression perpetration. In addition, more research is needed to better establish and understand gender differences in regards to traumatic sexualization and sexual abuse impact in general. Further, future studies are needed to address traumatic sexualization with homosexual and bisexual men who are victims of CSA.

As noted previously, most research on CSA outcomes has focused on female victims. Further, the clinical literature on the outcomes of CSA has focused heavily on a narrow band of symptoms identified in the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 2000) as being associated with posttraumatic stress disorder (PTSD; e.g., Finkelhor, 1990). Whereas PTSD symptoms reflect one important set of outcomes related to CSA, research on traumatic sexualization suggests a need to examine negative outcomes beyond PTSD. This tendency to limit CSA outcome research to established diagnostic symptoms and categories may help to explain the 13-year gap between Finkelhor's introduction of the concept of traumagenic dynamics and Matorin and Lynn's initial effort at measuring the construct of traumatic sexualization in heterosexual women. This effort was followed by another gap of 13 years before we adapted the measure for use with men. In an effort to more completely capture the complex impact of CSA on functioning throughout the lifespan, it is essential that researchers move beyond established psychiatric symptoms and disorders. Further, it is essential that researchers provide increased attention to male victims as they make up a sizeable portion of the sexually abused population.

Male victims of CSA continue to be understudied and underserved, and addressing this gap should be a priority for researchers and practitioners alike. Continued research on this topic may lead to a deeper overall understanding of CSA impact in men and to improved strategies for treating the effects of CSA in men.

Acknowledgments

Study 2 of this project was supported by a grant (R21HD055831; Zoe Peterson, PI) from the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) at the National Institutes of Health. This article's contents are solely the responsibility of the authors and do not necessarily represent the official views of NICHD. The authors are grateful to the co-investigators on the grant (Julia R. Heiman, Erick Janssen, Jeffry Thigpen, J. Dennis Fortenberry, and Janet N. Arno) and to David Goodrich and Scott Herbert for help with data collection.

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Table 1
Factor Loadings for the TSS-M (N = 297) Based on an Exploratory Factor Analysis with the Study 1 Online Sample

Item	Factor Loading
Factor 1: Avoidance and Fear of Sexual and Physical Intimacy (16 items)	
Eigenvalue = 8.48; 22.31% of variance explained; $\alpha = .92$	
I avoid being sexually intimate.	.78
I avoid sexual activity.	.80
I avoid physical contact with women.	.73
I am afraid of sex.	.67
I prefer nonsexual relationships over sexual relationships.	.73
I do not want to be physical with women.	.72
When I start to become acquainted with a woman, I hope the relationship doesn't become sexual.	.56
I am uncomfortable being sexual.	.65
I try hard to avoid physical relationships.	.71
I strongly dislike sexual contact with women.	.65
I am afraid of acting sexual.	.75
I would rather not have physical relationships with women.	.56
I am disgusted by sex.	.65
I think sex is dirty.	.52
I enjoy nonphysical relationships more than physical relationships.	.61
My relationships with the women I date do not involve sexual activity.	.59
Factor 2: Thoughts About Sex (11 items)	
Eigenvalue = 6.93; 18.23% of variance explained; $\alpha = .89$	
I have trouble keeping sexual thoughts out of my head.	.67
Sexual thoughts enter my head throughout the day and night.	.60
When I am studying (or working) I have sexual thoughts.	.71
I daydream about sex.	.73
I am preoccupied with sexual thoughts.	.73
Sexual thoughts preoccupy my mind.	.71
I have sexual fantasies.	.68
I can't get my mind off sex.	.72
I think about sex.	.68
I think about sex at inappropriate times.	.61
I have unusual sexual thoughts.	.54
Factor 3: Sexual Self-Concept (10 items)	
Eigenvalue = 3.26; 8.57% of variance explained; $\alpha = .88$	
My relationships with women are based on sex.	.64
I use sex to avoid loneliness.	.57
I avoid rejection by having sex.	.69
Women base their relationships with me on sex.	.75
I have sex with women I do not know very well.	.68

Item	Factor Loading
I need sex to feel good about myself.	.57
I have sex on a first date.	.68
People are interested in me because I act seductively.	.72
Women want to be with me because I am seductive.	.71
My sexuality is what attracts people to me.	.70

Table 2
TSS-M Scores for the Total Study 1 and Study 2 Samples and as a Function of Child Sexual and Physical Abuse History

Group	Sexual Avoidance	Sexual Thoughts	Sexual Self-Concept
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>
Study 1 Online Sample			
Total sample (<i>N</i> = 329)^a	1.55 (.60)	3.27 (.84)	2.21 (.83)
No sexual or physical abuse (<i>n</i> = 69)	1.49 (.62) ^b	3.19 (0.80)	2.00 (0.67)
Physical abuse only (<i>n</i> = 91)	1.44 (.48) ^b	3.24 (0.86)	2.25 (0.86)
Sexual abuse only (<i>n</i> = 15)	1.48 (.49) ^b	3.69 (0.63)	2.53 (1.05)
Both physical and sexual abuse (<i>n</i> = 55)	1.76 (.75) ^b	3.39 (0.76)	2.62 (0.70)
Study 2 STD Clinic Sample			
Total sample (<i>N</i> = 328)^a	2.00 (.65)	2.57 (.75)	2.72 (.97)
No sexual or physical abuse (<i>n</i> = 40)	1.83 (0.54)	2.25 (0.91)	2.31 (1.12)
Physical abuse only (<i>n</i> = 110)	1.86 (0.55)	2.29 (0.63)	2.39 (0.81)
Sexual abuse (with or without physical abuse; <i>n</i> = 178)	2.11 (0.71)	2.81 (0.70)	3.02 (0.93)

^aSome participants did not provide information about their child abuse history and thus were not included in the comparisons of the abuse groups.

^bFor the Sexual Avoidance subscale in Study 1, log transformed values were used in the analyses. Non-transformed values are reported here.

Table 3
Bivariate Correlations Between the TSS-M and Measures Assessing Convergent and Divergent Validity in the Study 1 Online Sample (N = 201)

Scale	Sexual Avoidance <i>r</i>	Sexual Thoughts <i>r</i>	Sexual Self-Concept <i>r</i>
Measures of convergent validity			
Traumatic sexualization ^a	.55**	-.15*	.08
Dysfunctional sexual behaviors ^b	-.13	.32**	.62**
Sex guilt ^c	.55**	-.37**	-.08
Sexual self-esteem ^d	-.59**	.14*	.06
Sexual preoccupation ^d	-.28**	.67**	.26**
Sexual depression ^d	.55**	-.05	-.08
Measures of divergent validity			
Social desirability (self-deception) ^e	-.19**	.06	-.02
Social desirability (impression management) ^e	.01	-.08	-.03
Depression ^f	.38**	.12	.14
Anxiety ^f	.38**	.06	.16*
Stress ^f	.39**	.16*	.08
Hypermasculinity ^g	-.03	.05	.26**
Masculine sexual identity ^g	-.28**	.23**	.37**

Note. Correlations that are inconsistent with the hypothesized pattern (*r* .30 for measures of convergent validity and *r* -.30 for measures of divergent validity) are indicated in bold.

^aMeasured by the Traumatic Sexualization subscale of the Trauma Related Beliefs Questionnaire.

^bMeasured by the Dysfunctional Sexual Behavior Scale.

^cMeasured by the Mosher Sex Guilt Scale.

^dMeasured by the Sexuality Scale.

^eMeasured by the Balanced Inventory of Desirable Reporting.

^fMeasured by the Depression Anxiety and Stress Scales.

^gMeasured by the Auburn Differential Masculinities Inventory.

*
 $p < .05$.

**
 $p < .01$.