The Impact of Childhood Physical Abuse and Age of Sexual Initiation on Women's Maladaptive Posttraumatic Cognitions

Amy D. Marshall a & Feea R. Leifker a

a Department of Psychology, Pennsylvania State University, University Park, Pennsylvania, USA

Published online: 03 Mar 2014.

To cite this article: Amy D. Marshall & Feea R. Leifker (2014) The Impact of Childhood Physical Abuse and Age of Sexual Initiation on Women's Maladaptive Posttraumatic Cognitions, Journal of Aggression, Maltreatment & Trauma, 23:2, 136-150, DOI: 10.1080/10926771.2014.872746

To link to this article: http://dx.doi.org/10.1080/10926771.2014.872746

PLEASE SCROLL DOWN FOR ARTICLE
CHILDHOOD ABUSE AND SEXUAL RISK-TAKING IN WOMEN

The Impact of Childhood Physical Abuse and Age of Sexual Initiation on Women’s Maladaptive Posttraumatic Cognitions

AMY D. MARSHALL and FEEA R. LEIFKER
Department of Psychology, Pennsylvania State University, University Park, Pennsylvania, USA

Child abuse survivors often exhibit long-standing maladaptive beliefs. Sexual risk-taking could contribute to the maintenance of such beliefs by reinforcing cognitions that originally resulted from childhood physical abuse. In this study, 64 community women, most with elevated posttraumatic stress disorder symptoms, completed measures of childhood abuse, sexual risk-taking, and posttraumatic cognitions. Age of first consensual sexual intercourse mediated the relationship between childhood physical abuse and maladaptive posttraumatic cognitions in adulthood. Thus, age of sexual intercourse initiation might play an important role in women’s recovery from childhood physical abuse. Clinicians should consider the possible impact of women’s sexual history when challenging their cognitions during trauma-based cognitive behavioral therapy. Further, decreasing risky sexual behavior might partially protect against the negative effects of trauma.

KEYWORDS child abuse, posttraumatic beliefs, posttraumatic stress disorder, sexual risk-taking, trauma

Received 23 April 2012; revised 2 November 2012; accepted 18 December 2012.
We thank Fiona Barwick, Kaitlyn Hanley, Kelly Parker-Maloney, Lauren Sippel, Lauren Szkodny, and numerous undergraduate research assistants for their helpful contributions to participant recruitment and data collection.
Address correspondence to Amy D. Marshall, Department of Psychology, Pennsylvania State University, 140 Moore Building, University Park, PA 16802. E-mail: AmyMarshall@psu.edu
Child abuse is a significant public health problem affecting approximately 20% to 21% of women and 15% to 31% of men (Briere & Elliott, 2003; Chartier, Walker, & Naimark, 2007; Edwards, Holden, Felitti, & Anda, 2003). Child abuse is associated with a variety of negative academic, behavioral, and mental health consequences (Beitchman, Zucker, Hood, daCosta, & Akman, 1991; Malinosky-Rummell & Hansen, 1993) that continue into adulthood (Arnow, 2004; Meade, Kershaw, Hansen, & Sikkema, 2009; Silverman, Reinherz, & Giaconia, 1996). Women disproportionally experience the negative effects of child abuse compared to men (Breslau, Davis, Andreski, Peterson, & Schultz, 1997; Thompson, Kingree, & Desai, 2004).

The experience of child abuse generally confers risk for the exhibition of sexual risk-taking behaviors (e.g., promiscuity, failure to use a condom, early initiation of sexual intercourse) during adolescence (Chartier, Walker, & Naimark, 2009; Meade et al., 2009), and this link is especially strong among young women (Tubman, Montgomery, Gil, & Wagner, 2004; Widom & Kuhns, 1996). Early initiation of consensual sexual activity, in particular, is associated with long-term behavioral and psychological problems, including an increased risk of engaging in future risk-taking behaviors (Sandfort, Orr, Hirsch, & Santelli, 2008). For example, Coker et al. (1994) found that girls who reported an early age of first intercourse had more sexual partners, were less likely to use a condom, and had higher rates of sexually transmitted infection (STI) and pregnancies than peers with a later age of first intercourse.

In addition to the physical health consequences of sexual risk-taking, women who engage in sexual intercourse at an early age are at increased risk for experiencing emotional distress, including guilt, shame, and regret about engaging in sexual activity (Darling, Davidson, & Passarello, 1992; Dickson, Paul, Herbison, & Silva, 1998; Moore & Davidson, 1997). Guilt about engaging in consensual sexual activity is often experienced as self-blame and self-contempt; in the long term, guilt is implicated in forming unhealthy expectations for future sexual relationships (Moore & Davidson, 1997). Regret about initiating intercourse is associated with distress when recalling what occurred and wishing the experience had not happened (Moore & Davidson, 1997). Women who initiate sexual intercourse at an earlier age are also more likely to have low self-esteem compared to those who initiate at a later age (Meier, 2007). Moreover, early initiation of sexual activity can lead to mental health problems such as depression and anxiety (McLeod & Knight, 2010). The psychological effects of early initiation could be increased if additional negative consequences of sexual risk-taking (e.g., STIs) are present (Ethier et al., 2006). That is, the experience of STIs might serve to further increase women’s negative views of their sexual behavior, relationships, and self, in general.

In many ways, the psychological effects of early initiation of sexual intercourse mirror some of the psychological effects of child abuse. That
is, child abuse also leads to negative cognitions such as low self-esteem, dysfunctional beliefs about trust and intimacy, and self-blame (Gibb et al., 2001; Lemos-Miller & Kearney, 2006; Wenninger & Ehlers, 1998). In general, maladaptive posttraumatic cognitions have been conceptualized as including negative views of the self (e.g., “I am a weak person”), negative views of the world (e.g., “I can’t rely on other people”), and self-blame (e.g., “I made this happen”). Following trauma, maladaptive posttraumatic cognitions can occur to varying degrees, even in the absence of a diagnosis of posttraumatic stress disorder (PTSD; Ehlers & Clark, 2000; Foa, Ehlers, Clark, Tolin, & Orsillo, 1999). Together, these literatures suggest that, among survivors of childhood abuse who are at elevated risk for experiencing maladaptive posttraumatic cognitions, sexual risk-taking later in life might reinforce such cognitions, making them stronger in adulthood.

A better understanding of the development of maladaptive posttraumatic cognitions is essential both because of the disturbing nature of such beliefs and because they are one of the strongest predictors of the development and maintenance of PTSD (Dunmore, Clark, & Ehlers, 2001; Ehlers & Clark, 2000; Steil & Ehlers, 2000), a disorder that is twice as likely to affect women as men and is one of the most common psychological outcomes of child abuse (Deblinger, McLeer, Atkins, Ralphe, & Foa, 1989; Kearney, Wechsler, Kaur, & Lemos-Miller, 2010). Moreover, maladaptive posttraumatic cognitions have a unique impact on one’s ability to cope with trauma, above and beyond PTSD severity (Dunmore et al., 2001). Such cognitions might play a particularly important role in preventing recovery from revictimization experiences that might occur throughout the life span, a phenomenon that is common among female survivors of childhood abuse (Widom, Czaja, & Dutton, 2008).

In summary, survivors of child abuse often exhibit long-standing patterns of dysfunctional beliefs. Additional negative consequences of child abuse, such as sexual risk-taking, can contribute to the maintenance of these posttraumatic cognitions by reinforcing negative beliefs about the self and world that originally resulted from child abuse. We hypothesize that (a) the experience of child abuse will be positively associated with maladaptive posttraumatic cognitions in adulthood, (b) the experience of child abuse will be related to a relatively earlier initiation of sexual intercourse, (c) relatively earlier initiation of sexual intercourse will be related to more maladaptive posttraumatic cognitions, and (d) relatively earlier initiation of sexual intercourse will mediate the expected relation between child abuse and maladaptive posttraumatic cognitions. We also expect that the experience of an STI will increase the strength of the relationship between sexual risk-taking and maladaptive posttraumatic cognitions in adulthood. We chose to extend existing literature by making childhood physical abuse a focus of this study for three reasons: (a) compared to childhood sexual
abuse, childhood physical abuse is more prevalent (Deblinger et al., 1989),
(b) childhood physical abuse has a similar impact on sexual risk-taking as
childhood sexual abuse (Chartier et al., 2009; Meade et al., 2009), and (c)
a great dearth of research focused specifically on childhood physical abuse
currently exists (Senn, Carey, & Vanable, 2008). Thus, although a combina-
tion of diverse forms of childhood abuse are likely important to the proposed
model, we focus on childhood physical abuse to examine whether this par-
ticular form of childhood abuse plays an independent role in the proposed
model. We test the hypothesized relations among a sample of adult women
due to the particular importance of these processes among women.

METHOD

Participants

Community participants were recruited using newspaper and Internet adver-
tisements (76%), flyers placed in local businesses (20%), and flyers placed
in a local outpatient mental health clinic (4%). Recruitment materials indi-
cated that married or cohabitating heterosexual couples in which at least one
partner experienced a stressful life event were being recruited for a study
of stressful life events and relationships. For inclusion in a larger study of
PTSD and relationship functioning, each partner was screened over the tele-
phone for probable PTSD using the PTSD Checklist, Civilian Version (PCL–C;
Weathers, Litz, Herman, Huska, & Keane, 1993). Recruited couples included
at least one partner who met criteria for probable PTSD (i.e., PCL–C cutoff
score of 44; Blanchard, Jones-Alexander, Buckley, & Forneris, 1996). Some
couples contacted the lab and completed the screening, but were excluded
because neither partner met criteria for probable PTSD (n = 122 couples),
they were not interested in the study (n = 8), partners’ combined income
exceeded $100,000 per year or either partner had more than 6 years of post-
high-school education (n = 3), or they ended their relationship during the
screening process (n = 1). Income and education restrictions were included
to exclude university faculty and affiliated families, thus maintaining a sam-
ple representative of individuals typically served by community clinics and
those residing in surrounding rural communities.

Sixty-four couples participated in the larger study, but this report
includes only data from the female partners. These participants had a mean
age of 36.2 (SD = 12.83) years. Participants self-identified as White (89%),
biracial or multiracial (5%), African American (3%), or Hispanic/Latino (3%).
Participants’ mean relationship length was 11.61 years (SD = 11.43) and they
had an average of 0.95 (SD = 1.13) children. Mean individual income was
$1,628 (SD = $2,740) per month. Participants had an average of 14.3 (SD =
2.43) years of education and 60.5% were currently employed.
Measures

PTSD diagnosis

Current PTSD symptoms were confirmed using the Clinician Administered PTSD Scale (CAPS; Blake, Weathers, Nagy, & Kaloupek, 1995). The CAPS is a structured interview that assesses the frequency and intensity of each symptom using standard prompt questions and explicit, behaviorally anchored rating scales. It is commonly considered the gold standard in PTSD assessment and it has demonstrated convergent validity with other measures of PTSD (Weathers, Keane, & Davidson, 2001). Following extensive training, five advanced graduate students in clinical psychology administered the CAPS under close supervision. In this sample, coefficient alpha was .90. To determine interrater reliability, video-recorded interviews were divided by PTSD diagnosis (present or absent) and 10% of interviews were randomly selected. Kappa was 1.0 (100% agreement) for overall PTSD diagnosis.

Traumatic events

The Traumatic Life Events Questionnaire (TLEQ; Kubany et al., 2000) was used to assist in the determination of the primary trauma to be assessed during the CAPS interview. The TLEQ lists 22 types of potentially traumatic events and asks respondents to indicate if they experienced each event, and if so, how many times. The TLEQ also includes queries about fear, helplessness, horror, and which trauma currently causes the most distress. The TLEQ has demonstrated adequate levels of test–retest reliability and good content validity (Kubany et al., 2000).

Posttraumatic cognitions

The Posttraumatic Cognitions Inventory (PTCI; Foa et al., 1999) is a 36-item measure of maladaptive threat-related cognitions that can occur following trauma, including negative cognitions about the self (e.g., I can’t stop bad things from happening to me), negative cognitions about the world (e.g., People can’t be trusted), and self-blame (e.g., The event happened because of the way I acted). Responses (on a 7-point scale ranging from totally disagree to totally agree) were anchored to the traumatic event that participants reported as currently most distressing on the TLEQ. Higher scores indicate more maladaptive posttraumatic cognitions. The inventory has demonstrated good test–retest reliability, internal consistency, and convergent validity with measures of PTSD (Foa et al., 1999). In this sample, coefficient alpha was .94.
CHILDHOOD PHYSICAL ABUSE

The Childhood Trauma Questionnaire, short form (CTQ; Bernstein et al., 2003) is a 28-item measure of childhood physical, sexual, and emotional abuse as well as physical and emotional neglect. The 5-item physical abuse subscale (e.g., People in my family hit me so hard that it left me with bruises or marks) was used in this study. Participants indicated the degree to which they experienced each event on a 5-point scale ranging from 1 (never true) to 5 (very often true); responses were summed. The CTQ is the most widely used measure of childhood abuse and demonstrates good internal consistency and test–retest reliability (Bernstein et al., 1994). Due to inclusion of women who did not experience any childhood physical abuse, the physical abuse subscale was positively skewed. A log transformation was used to increase normality. In this sample, coefficient alpha for the physical abuse subscale was .86.

SEXUAL RISK-TAKING

In a questionnaire made for this study, participants were asked: “How old were you the first time you had consensual sexual intercourse?,” as a measure of age of first consensual sexual intercourse, and “Have you ever had a sexually transmitted disease (STD), such as chlamydia, gonorrhea, syphilis, genital warts, trichomoniasis, genital herpes, hepatitis B, or HIV?,” as a measure of history of sexually transmitted infection.

Data Analysis

All statistical analyses were conducted among the full sample of 64 women. To test the hypothesis that age of first consensual sexual intercourse would partially mediate the relationship between childhood physical abuse and maladaptive posttraumatic cognitions in adulthood, we conducted a bootstrap analysis of the sampling distribution of the indirect effect (Preacher & Hayes, 2004). As a contemporary alternative to Baron and Kenny’s (1986) approach to testing for mediation, this method increases statistical power while also decreasing the likelihood of Type II error. We examined the impact of STI history on the link between age of first consensual sexual intercourse and maladaptive posttraumatic cognitions in adulthood by conducting a moderated mediation analysis following Preacher, Rucker, and Hayes’s (2007) procedures. Simulation studies including an N approximate to ours demonstrate sufficient power to detect small to medium effects (Preacher et al., 2007). The expectation-maximization method was used to address issues of missing data so participants with partial data could be included (Little & Rubin, 1989). This method provides less biased estimates than listwise deletion, pairwise deletion, or regression substitution (Schafer & Graham, 2002).
RESULTS

Sample Description and Associations among Study Variables

Thirty-one women (48% of the sample) met diagnostic criteria for PTSD. All women except for one reported having experienced a traumatic life event on the TLEQ. The woman who did not experience a traumatic life event reported on her most stressful life event when completing the PTCI. Forty-one women (64% of the sample) reported at least rarely having experienced one form of childhood physical abuse. On average, these 41 women reported moderate to severe childhood physical abuse (CTQ $M = 11.15$, $SD = 5.21$). Nine women (14% of the sample) reported having an STI in their lifetime. Women who ever had an STI did not differ significantly from those who did not ever have an STI on degree of childhood physical abuse, $t(62) = 0.31$, ns; age of first consensual sexual intercourse, $t(62) = -0.39$, ns; or posttraumatic cognitions in adulthood, $t(62) = -0.85$, ns.

Table 1 displays the descriptive statistics and bivariate correlations across primary study variables. Participants exhibited great variability on all study variables. On average, women were 16.41 years of age at the time of their first sexual intercourse, which is almost 2 years younger than the average age of first intercourse among women currently aged 35 to 39 years (i.e., age 18.2; Chandra, Martinez, Mosher, Abma, & Jones, 2005). As expected, frequency of childhood physical abuse was significantly correlated with maladaptive posttraumatic cognitions in adulthood, as well as age of first consensual intercourse. Age of first consensual intercourse and maladaptive posttraumatic cognitions were also significantly correlated.

Moderated Mediation Analyses

As displayed in Figure 1, the direct effect of childhood physical abuse frequency on age of first consensual sexual intercourse was statistically significant ($\beta = -2.36$, $p < .01$) and the direct effect of age of first consensual sexual intercourse on maladaptive posttraumatic cognitions in adulthood, when controlling for the effect of childhood physical abuse frequency, was

<table>
<thead>
<tr>
<th>Variable</th>
<th>$M$</th>
<th>$SD$</th>
<th>Range</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Childhood physical abuse</td>
<td>8.94</td>
<td>5.11</td>
<td>5–24</td>
<td>—</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Posttraumatic cognitions</td>
<td>35.80</td>
<td>12.14</td>
<td>11–65</td>
<td>.40*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Age of first intercourse</td>
<td>16.41</td>
<td>2.64</td>
<td>12–23</td>
<td>-.39*</td>
<td>-.48*</td>
<td></td>
</tr>
</tbody>
</table>

Note. Correlations including childhood physical abuse are based on a log-transformed variable and the descriptive statistics are based on the original, nontransformed variable.

*p < .001.
FIGURE 1 Mediating effect of age of first consensual sexual intercourse on the relationship between the experience of childhood physical abuse and maladaptive posttraumatic cognitions in adulthood. The coefficient shown in parentheses represents the effect of childhood physical abuse on maladaptive posttraumatic cognitions when accounting for age of first consensual sexual intercourse. Note. CI = confidence interval; $\beta =$ unstandardized beta. $^*p < .05.$ $^{**}p < .01.$ $^{***}p < .001.$

statistically significant ($\beta = -1.73, p < .01$). In addition, the effect of childhood physical abuse frequency on maladaptive posttraumatic cognitions in adulthood was statistically significant ($\beta = 11.30, p < .001$) and reduced when accounting for the effect of age of first consensual sexual intercourse ($\beta = 7.21, p < .05$). Results of the bootstrap analysis indicate that mediation was present (95% CI $[0.83, 8.13]$ for the indirect effect). STI history did not significantly moderate the effect of age of first consensual sexual intercourse on maladaptive posttraumatic cognitions ($t = 1.51, ns$).

DISCUSSION

The high prevalence rate and negative consequences of women’s experience of childhood physical abuse (e.g., Briere & Elliott, 2003), as well as women’s increased risk for revictimization across the life span (Widom et al., 2008), necessitate a broader understanding of factors that can hinder recovery. In this study, we focused on understanding predictors of maladaptive posttraumatic cognitions in adulthood because of the distressing nature of such cognitions, as well as findings indicating that they are strongly associated with a diminished ability to cope with the effects of trauma and predict the development of PTSD in response to an initial or future traumatic experience (Dunmore et al., 2001). As one potential avenue through which posttraumatic cognitions could be reinforced or strengthened following childhood physical abuse, we examined the role of sexual risk-taking, particularly early initiation of consensual sexual activity. As expected, we found that women’s experience of more frequent and severe childhood physical abuse was associated with more maladaptive posttraumatic cognitions in adulthood. To our knowledge, this is the first study to demonstrate this
relationship. The experience of more childhood physical abuse was also associated with an earlier age of first consensual sexual intercourse. In turn, earlier onset of sexual intercourse was associated with more maladaptive posttraumatic cognitions in adulthood. Consideration of the age of sexual initiation significantly weakened the direct link between childhood physical abuse and maladaptive posttraumatic cognitions, suggesting that age of sexual initiation might represent a mechanism through which childhood trauma leads to more maladaptive posttraumatic cognitions during women’s adult lives.

These findings support and expand on prior research indicating that sexual risk-taking is associated with low perceived control over sexual behaviors, which, in turn, is associated with PTSD severity (Munroe, Kibler, Ma, Dollar, & Coleman, 2010). Together with this study, this work illuminates the importance of sexual risk-taking on negative psychological outcomes following trauma. This work also suggests that, among women in this study, sexual risk-taking following childhood physical abuse might predict additional negative outcomes via increased maladaptive posttraumatic cognitions. It will be important to continue to develop more extensive models of the role of sexual risk-taking on the negative outcomes that result from childhood abuse experiences.

We had anticipated that negative consequences of sexual risk-taking, particularly a history of STI, would moderate the relationship between age of first sexual intercourse and maladaptive posttraumatic cognitions in adulthood. Contrary to our expectation, history of STI did not strengthen this link. This might be due to low statistical power resulting from the relatively low incidence of STI in this sample (14%), thus not providing a fair test of the hypothesis. Alternatively, women’s history of STI might be more directly associated with other forms of sexual risk-taking (e.g., frequent intercourse, inconsistent condom use) such that STI would be more likely to moderate the relation between other forms of sexual risk-taking and maladaptive posttraumatic cognitions. In fact, although women who initiate sexual intercourse at an earlier age have been found to have a higher incidence of STI (Sandfort et al., 2008), they are also more likely to participate in additional risk behaviors that, in turn, increase their likelihood of contracting an STI (O’Donnell, O’Donnell, & Stueve, 2001). Regardless, it is notable that the age of first sexual intercourse was associated with maladaptive posttraumatic cognitions even in the absence of a clear consequence of earlier sexual initiation such as STI.

In this study, we focused on physical forms of child abuse, rather than childhood sexual abuse. We chose this focus due to the higher prevalence of childhood physical abuse and similar psychological outcomes between physical and sexual abuse (Deblinger et al., 1989). Further, many studies of sexual risk-taking have focused on victims of childhood sexual abuse (see Senn et al., 2008, for a review), yet recent findings indicate that childhood
physical abuse has a similar, deleterious impact on adolescent sexual risk-taking (Chartier et al., 2009; Meade et al., 2009). Researchers often suggest that childhood sexual abuse should have more of an impact on sexual behaviors during development than other forms of childhood trauma given the inherent sexual nature of the trauma. For example, it has been suggested that childhood sexual abuse results in “sexual distortions” that contribute to early initiation of sexual intercourse (Noll, Trickett, & Putnam, 2003). However, this study lends support to the significant link between alternate forms of childhood trauma and sexual risk-taking. We do not aim to suggest that childhood sexual abuse is not an important contributor to the development of risky sexual behavior and maladaptive posttraumatic cognitions; instead, our aim is to demonstrate that childhood physical abuse can also play a role in such processes. We believe that a combination of diverse forms of childhood abuse (e.g., sexual, physical, and emotional abuse, as well as neglect) likely plays a role in the model examined in this study. However, to extend prior literature that examines childhood sexual abuse, specifically, or childhood abuse experiences, in general, we focused on one particular form of abuse that has not previously been granted extensive research attention (i.e., childhood physical abuse). It will be important for researchers to continue to identify mechanisms linking childhood trauma to sexual risk-taking that transcend the nature of the trauma.

These findings have several implications for interventions targeting female survivors of childhood physical abuse. In the initial stages of psychotherapy, a thorough assessment of women’s maladaptive posttraumatic cognitions should be conducted, and women’s sexual history should be examined as a potential contributor to their posttraumatic cognitions. Such information could be key to effectively challenging women’s maladaptive posttraumatic beliefs during cognitive behavioral therapy. For example, women who hold the maladaptive posttraumatic cognition of “I am a weak person” might use their history of risky sexual behavior to justify the cognition. Better understanding the conditions under which they have engaged in risky sexual behavior might provide counterevidence to help challenge the maladaptive cognition, potentially by suggesting that the whole person is not weak (thus relaxing the “black or white” nature of the cognition) or that risky behaviors were a result of a rational choice, rather than having emerged as a function of weakness. Without such information, negative beliefs that result from one’s sexual history might not be fully transformed. In addition, health-care workers should consider addressing and preventing future engagement in risky sexual behaviors, as they might impede recovery by continuing to reinforce maladaptive posttraumatic cognitions. Promotion of sexual self-efficacy through education, role-playing means of negotiation with a partner, and addressing perceived barriers toward making healthy sexual decisions could be key to fostering beliefs that are protective against the negative effects of trauma.
Limitations

Although the results of this study are intriguing, several limitations should be noted. The most significant limitation is the use of a cross-sectional design with retrospective reporting of childhood abuse and sexual risk-taking. Although we assume a sequential nature of the variables included in the model, a prospective longitudinal design would remove questions regarding the impact of current reporting biases on the accuracy of the data. In addition, we only assessed age of first consensual sexual intercourse and history of STI as measures of the larger construct of sexual risk-taking. It could be that our results are specific to age of women’s first sexual intercourse, rather than variables such as number of sexual partners, consistency of condom use, and frequency of sexual intercourse. To validate our interpretation of study findings, it will be important for future studies to include a more thorough assessment of sexual risk-taking. This work might need to be preceded by the development of a means to objectively measure lifetime sexual risk-taking in a sample of adult women of varying ages who are in committed, if not married, relationships. Such a measure would need to account for possible reporting biases and individual differences due to age and time spent in monogamous relationships. Finally, the relatively small sample size, the nature of recruitment (i.e., volunteer couples from rural areas), and the focus on childhood physical abuse limit generalizability such that the results might not be generalizable to all women or women who have experienced other forms of childhood trauma. On a related note, this research was conducted among female participants only. Until further research is conducted among men, the results should not be considered generalizable to men. Ideally, a large-scale, prospective study using validated comprehensive measures among a representative sample of men and women who have experienced a variety of forms of childhood trauma would provide the strongest evidence to test this model.

Conclusions

In conclusion, this study provides evidence to suggest that women who experience physical abuse during childhood are more likely to initiate sexual intercourse at an earlier age, which, in turn, contributes to their maladaptive posttraumatic cognitions in adulthood. Additional research is necessary, particularly examining variables more proximal to maladaptive posttraumatic cognitions in adulthood (e.g., revictimization experiences) and using a longitudinal study design with a broader measurement of sexual risk-taking among a larger sample of childhood trauma survivors. However, this study still provides compelling evidence regarding the important role of sexual risk-taking in women’s recovery from childhood physical abuse. With a greater knowledge base, prevention and treatment studies might be able to incorporate these findings to more effectively treat negative reactions to early trauma.
FUNDING

Amy D. Marshall is supported by the National Institutes of Health’s Building Interdisciplinary Research Careers in Women’s Health (BIRCWH) program (1 K12 HD055882). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

REFERENCES


