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Cogn Behav Pract. Author manuscript; available in PMC 2018 November 01.

Published in final edited form as:

Cogn Behav Pract. 2017 November ; 24(4): 496–507. doi:10.1016/j.cbpra.2016.12.001.

Development and Refinement of a Targeted Sexual Risk Reduction Intervention for Women With a History of Childhood Sexual Abuse

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Abstract

Childhood sexual abuse (CSA) is associated with sexual risk behavior in adulthood. Traditional sexual risk reduction interventions do not meet the unique needs of women who have been sexually abused. In the current paper, we describe the four-stage process we followed to develop and refine a targeted sexual risk reduction intervention for this population. First, initial quantitative work revealed that the intervention should address how maladaptive thoughts related to traumatic sexualization, trust, powerlessness, and guilt/shame (traumagenic dynamics constructs) influence current sexual behavior. Second, qualitative interviews with 10 women who reported a history of CSA (*M* age = 34 years; 90% African American) as well as current sexual risk behavior provided support for targeting maladaptive thoughts associated with these traumagenic dynamics constructs. Third, based on the qualitative and quantitative results, we developed a 5-session, group-delivered intervention to address the maladaptive thoughts that occurred as a result of CSA, as well as the cognitive-behavioral determinants of sexual risk behavior. This intervention drew heavily on cognitive behavioral techniques to address cognitions associated with CSA and the links between these cognitions and current sexual risk behavior. Techniques from trauma-based therapies, as well as motivational techniques, were also incorporated into the intervention. Finally, we refined the intervention with 24 women (*M* age = 33 years; 79% African American), and assessed feasibility and acceptability. These women reported high levels of satisfaction with the intervention. The resultant intervention is currently being evaluated in a small, randomized controlled trial.

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Keywords

child sexual abuse; sexual risk behavior; sexually transmitted infections; HIV; traumagenic dynamics

Sexually Transmitted Infections (STIs) Among Women

STIs, including HIV, are a significant public health problem for women. Currently, over 1.2 million people are living with HIV in the U.S., including 284,500 women (Centers for Disease Control and Prevention, 2015). Nearly 50,000 people are newly infected with HIV in the U.S. each year, and women make up 20% of these new infections (Centers for Disease Control and Prevention, 2012). Women are primarily infected with HIV through heterosexual sex (Centers for Disease Control and Prevention, 2015). Other STIs also disproportionately affect women. (Centers for Disease Control and Prevention, 2014), and the consequences of many STIs (e.g., pelvic inflammatory disease, infertility) are more severe for women (Centers for Disease Control and Prevention, 2014).

Childhood Sexual Abuse and Subsequent Sexual Risk Behavior

Childhood sexual abuse (CSA), a risk factor for STI and HIV infection, is common among women. In national samples, reported rates of CSA range between 15% and 32% for women (Briere & Elliott, 2003; Vogeltanz et al., 1999). CSA is associated with a range of sexual risk behaviors, including an earlier age of first intercourse, a greater number of sexual partners, trading sex for money or drugs, unintended pregnancy, and a greater likelihood of having been diagnosed with an STD (Arriola, Louden, Doldren, & Fortenberry, 2005; Senn, Carey, & Vanable, 2008; Senn, Carey, Vanable, Coury-Doniger, & Urban, 2006; Upchurch & Kusunoki, 2004; van Roode, Dickson, Herbison, & Paul, 2009; Wilson & Widom, 2009). Severity of CSA is positively associated with greater sexual risk behavior (Senn, Carey, Vanable, Coury-Doniger, & Urban, 2007).

Our review of the literature (Senn et al., 2008) suggested two models that may explain how CSA leads to later sexual risk behavior: (a) traumagenic dynamics (TD) and (b) the Information-Motivation-Behavioral Skills (IMB) model. According to the *TD framework* (Finkelhor & Browne, 1985), CSA has four possible consequences: (a) traumatic sexualization, in which maladaptive scripts for sexual behavior are developed when a child is rewarded for sexual activity; (b) betrayal/lack of trust, in which a child feels betrayed (by the abuser, by reactions to abuse disclosure, or by others' failure to recognize abuse); (c) stigmatization and shame/guilt, in which a child feels stigmatized as sexually deviant; and (d) powerlessness, in which a child feels unable to control sexual aspects of relationships. These four dynamics, which reflect distorted perceptions of self, of relationships, and of the role of sex in relationships, may influence adult sexual behavior. Traumatic sexualization can lead individuals to have many sexual partners or to agree to risky sexual activity to obtain affection or other rewards. Betrayal may lead to difficulty trusting others and forming close relationships, or it may lead to impairment in learning how to judge who is trustworthy, ultimately leading to brief, multiple relationships. Stigmatization could lead to sexual risk behavior if one comes to think of oneself as someone who is sexually deviant.

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Finally, an individual who feels powerless in sexual situations may be unable to refuse risky sex. Research indicates that the TD constructs are related to psychological outcomes among those who were sexually abused (Feiring & Taska, 2005), and that these constructs mediate the relation between CSA and later psychological outcomes (Coffey, Leitenberg, Henning, Turner, & Bennett, 1996; Gibson & Leitenberg, 2001; Kallstrom-Fuqua, Weston, & Marshall, 2004).

According to the *IMB model* (Fisher & Fisher, 1992), information about HIV/STI transmission and prevention, motivation to be safer sexually (e.g., attitudes and intentions towards using condoms every time one has sex, as well as mutual monogamy with an uninfected partner), and behavioral skills for engaging in safer sex (e.g., sexual assertiveness, condom use skills) influence sexual risk behavior. Numerous studies support the association between the IMB constructs and sexual risk behavior (Mustanski, Donenberg, & Emerson, 2006; Robertson, Stein, & Baird-Thomas, 2006; Scott-Sheldon et al., 2010), and interventions including motivational and skills components are more effective at increasing condom use than interventions without these components (Johnson, Carey, Chaudoir, & Reid, 2006). Thus, the link between the IMB constructs and risk behavior is well established. Although the link between the IMB constructs and CSA had not been well studied prior to our research, this relation had received some limited empiric support. In a handful of studies, CSA was negatively associated with HIV-related knowledge, safer sex attitudes, and safer sex self-efficacy and skills (Brown, Lourie, Zlotnick, & Cohn, 2000; Brown, Reynolds, & Lourie, 1997; Hall, Hogben, Carlton, Liddon, & Koumans, 2008; Johnsen & Harlow, 1996; Noll, Horowitz, Bonanno, Trickett, & Putnam, 2003; Slonim-Nevo & Mukuka, 2007). While speculative, a number of possible reasons for these associations were suggested, including lowered impulse control (Brown et al., 2000; Brown et al., 1997), lower prevention self-efficacy (Brown et al., 1997; Slonim-Nevo & Mukuka, 2007), and negative attitudes of abusive partners towards condoms (Hall et al., 2008).

Need for Intervention Targeting

Individuals with a history of CSA are less responsive than nonabused individuals to typical sexual risk reduction interventions (Beadnell et al., 2006; Brown et al., 1997; Mimiaga et al., 2009), suggesting that individuals who have been sexually abused have unique needs that are not addressed in typical risk reduction interventions. Such interventions, for example, generally do not address traumagenic dynamics, which may be drivers of risk that are specific to this population. Typical interventions that address CSA do not incorporate HIV-related information, motivational enhancement for safer sex behavior, or behavioral skills training (El-Bassel, Caldeira, Ruglass, & Gilbert, 2009). The failure of existing interventions to integrate these two perspectives, as well as epidemiological evidence regarding STI/HIV risk among women with a history of CSA, reflects the need for evidence-based STI/HIV prevention interventions that address the needs of this vulnerable group.

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Intervention Development and Refinement

In this section, we describe the four steps we took to develop and refine a sexual risk reduction intervention targeted to women with a history of CSA, including preliminary (1) quantitative and (2) qualitative work, (3) intervention development and (4) refinement.

Identifying Mediators of the CSA-Sexual Risk Behavior Relation Using Quantitative Methods

To develop targeted sexual risk reduction interventions, it is important to understand the variables that explain (i.e., mediate) the relation between CSA and sexual risk behavior. Although a few studies found that variables such as partner violence, mental health, and substance use mediated the relation between CSA and sexual risk behavior (NIMH Multisite Prevention Trial Group, 2001; Plotzker, Metzger, & Holmes, 2007; Senn et al., 2006), little research had considered cognitive or appraisal factors (i.e., factors that are potentially modifiable through individual- or group-level interventions), such as the TD constructs described earlier, that mediate this relation. This may be because much of this research is rooted in the sexual health literature, which typically does not consider such clinically oriented perspectives. Thus, in our preliminary work, we designed a study to investigate cognitive or appraisal factors that might mediate the CSA-sexual risk behavior relation among women, with the goal of determining factors that should be addressed in a sexual risk reduction intervention targeted to women with a history of CSA.

To investigate whether the TD or IMB constructs better mediated the CSA–sexual risk behavior relation, we sampled 481 women attending a publicly funded STI clinic. We found that the TD constructs of traumatic sexualization and guilt/shame mediated the relation between CSA and number of sexual partners in the past 3 months, whereas the TD construct of guilt/shame and the IMB construct of motivation (assessed as condom attitudes) mediated the relation between CSA and unprotected sex (Senn, Carey, & Coury-Doniger, 2012). In addition, we tested these two competing theories by comparing the combined indirect effects through the TD constructs to the combined indirect effects through the IMB constructs. We found that the TD constructs as a whole were better mediators of the relation between CSA and the number of recent partners, whereas the IMB constructs were better mediators of the relation between CSA and condom use (Senn et al., 2012). These findings suggested that risk reduction interventions for women with a history of CSA need to focus on both TD and IMB constructs; thus, typical sexual risk reduction interventions, which focus on IMB constructs, would need to be expanded to also include TD constructs.

Development of a Sexual Risk Reduction Intervention for Women With a History of CSA Using Qualitative Methods

Based on the findings described above, we wanted to develop a sexual risk reduction intervention for women with a history of CSA that addressed the IMB constructs (which are addressed in many existing sexual risk reduction interventions) as well as the TD constructs (which, to our knowledge, have not been addressed in sexual risk reduction interventions). In the first phase of intervention development, a research staff member (clinical psychologist, Ph.D., female, African American) conducted qualitative interviews with 10 women recruited

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from an STI clinic who reported a history of CSA (self-defined) as well as current sexual risk behavior that put them at risk of HIV (i.e., more than one male sex partner or a male partner who had other partners in the past 3 months and inconsistent condom use in the past 3 months). We allowed women to self-define as abused because we did not want to label them as being sexually abused if they did not define themselves in this way. We excluded from participation women who were under age 18, who were impaired mentally, who did not speak English, who were severely depressed or suicidal, or who were HIV-positive. Women were compensated $30 for their time. This study was approved by the Institutional Review Boards of the participating institutions, and written informed consent was obtained prior to all study procedures. Nine participants were African American, and one was of mixed race; ages ranged from 22–49, with an average age of 34 years. Half ($n = 5$) had attended at least some college. Six were unemployed, and seven had a family income < $15,000/year. None were married, and the majority ($n = 8$) had children.

Through our quantitative work, we had identified the topics to address in a sexual risk reduction intervention for women with a history of CSA; thus, the purpose of our qualitative work was to determine how to best address these topics during the intervention. We were particularly interested in understanding whether women had already made the connection between CSA and their current sexual risk behavior, and if they recognized the TD constructs as potential explanations for this relationship. To ensure consistency, we created a qualitative interview guide based on our prior quantitative work, as well as the extant literature regarding CSA and sexual risk behavior. During the interviews, which lasted from 54 minutes to 92 minutes ($M = 70$ minutes), we asked women about their (a) perceived barriers to and motivations for engaging in safer sex; (b) perceptions of how childhood sexual experiences affect current sexual behavior; and (c) thoughts about the TD and IMB constructs. During the interview and analysis process, we also closely attended to other constructs that women discussed that might be linked to both CSA and to sexual risk behavior. We audiorecorded all interviews with the permission of participants; interviews were transcribed for analysis.

We analyzed qualitative interview data using conventional content analysis (Hsieh & Shannon, 2005). The first and second authors coded the data. In an iterative process, we read transcripts to achieve initial understanding, and followed this with line-by-line coding to identify themes. We first grouped data into broad themes and later codified these into precise categories. Throughout this process, the authors sought to identify similarities and differences within and across transcripts. The authors met regularly to discuss coding and analysis, with an eye towards consensus building and ensuring methodological rigor. We analyzed data using NVivo 10.

Almost all women demonstrated an awareness of the link between CSA and sexual risk behavior. Participants reported several different ways their history of sexual abuse influenced their current sexual risk behavior, as well as their ability to form and maintain “healthy” relationships. Four themes, which corresponded with Finkelhor and Browne’s traumagenic dynamics framework (1985), emerged from these discussions and informed intervention development: (a) lack of trust; (b) powerlessness and/or dominance; (c) traumatic sexualization; and (d) guilt and shame.

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Lack of Trust—Women noted that their experiences of childhood sexual abuse made it difficult for them to trust men. This lack of trust, in turn, affected women's willingness to engage in committed relationships that would make them vulnerable to a partner.

> [Do you think sexual abuse affects your ability to trust men?] *I think that's why I won't get in-, that's probably one of the reasons why I'm not in committed relationship. I have too many fears that I don't want to be dealing with like, I don't have the fear now but I feel that once I do get in a committed relationship I'm a be dealing with all them fears. (African American, 23 years old)*

Other women, however, reported that they trusted too easily.

> It's funny cuz certain things I would say, like the people I trust the most are people I shouldn't trust the most and I've noticed that even to this day. I am a very trusting person, usually now, you know, when I come in to something I give it that trust wholeheartedly and you shut it apart. The more that you do you shut it apart, that's how I am. Cuz usually people have to gain trust but I give it, you know? (African American, 28 years old)

This participant explicitly connected inappropriate trust with sexual risk, indicating its potential in STI acquisition. When asked why some women might not choose to use a condom with a sexual partner, she suggested:

> Just lack of judgment, just period. You know? Trusting someone or assuming that someone is clean, or STD free or whatever. (African American, 28 years old)

Thus, lack of trust may make it difficult for women to build healthy relationships with intimate partners, while too much trust may lead women to engage in relationships without asking about their partner's risk behaviors. These two seemingly contradictory attitudes sometimes coexisted within a single person, revealing the complicated relationship sexually abused women may have with trust and distrust.

Powerlessness—Women also reported that their sexual abuse experiences affected the degree of power they had in their sexual relationships. Women reported a feeling of powerlessness in their sexual relationships that they directly tied to their childhood experiences:

> So being abused and being promiscuous you feel like, you know, you have some kind of power or advantage over somebody else cuz they don't know as much as you do, but you only know it cuz of the abuse. But then there can be, like, a vulnerability to it too where you feel like, you know, you don't have any power in the situation, whatever, you know, he wants to do he can do. (African American, 31 years old)

This, in turn, could lead to unsafe sexual activity, as women lost their ability to proactively negotiate condom use or refuse sexual activity. One woman reported feeling "frozen" in the moment of sexual activity, and was unable to assert a desire for condom use.

> I don't know anything, I was so young to be taught anything, and now with having sex and feel almost vulnerable again. Not in a sense that I don't know what's going

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> on, but it's almost like, I get frozen sometimes. I don't know why. I get frozen and I don't, sometimes I won't say like put a condom on or all that I just go with the flow. (African American, 22 years old)

Thus, women who reported powerlessness were at risk because of their inability to negotiate safer sex.

In contrast, several women reported monopolizing control in intimate relationships, potentially as a way to reclaim the power and control that they lost as children. Women expected partners to acquiesce to participants' wishes and expectations; barring that, women asserted their right to exit the relationship.

> I was molested as a child. I would never let another man take advantage of me like that. I am no longer a helpless little 5-year-old. So it's either my way or the highway. So if you don't respect what I'm saying, if you can't deal with it, there's the door, see if you can do better. (Multiracial, 31 years old)

> Cuz at first I felt like, you know, as far as my relationships, I was more submissive than anything, but I'm dominant now. I'm the dominant one, you know? And I noticed if like with certain things I just can't, I like to have the control, you know? And maybe that's how it affected me different than everybody else, but I don't want anyone having control over me. (African American, 28 years old)

None of the women reported intimate relationships with an equitable balance of power; furthermore, those who claimed power largely did so in a general sense, not specifically in regards to sexual power. Only one woman stated that her experiences of abuse made her stronger in regards to her ability to refuse unsafe sexual activity:

> And see, when I was younger, I couldn't control, you know, I didn't have any control over what happened to me or the abuse, but now I have control over that so I can pretty much, you know, well I'm not going to do this, I'm not going to do that cuz that's risky behavior or something might come out that's not positive. (African American, 47 years old)

For the most part, however, relationship dominance did not translate into avoiding unsafe sex, in that women continued to acquiesce to condomless sex with their partners. In addition, although women who claimed all the power and control may have done so to protect themselves from being hurt emotionally or physically, this may have interfered with building healthy relationships.

Traumatic Sexualization—One or more of the components of traumatic sexualization (i.e., the development of maladaptive scripts for sexual behavior) were expressed by most women. We identified two major aspects of traumatic sexualization that women voiced: dislike and avoidance of sex, and distorted perceptions of the role of sex in relationships.

Many of the women interviewed described an aversion to or a lack of interest in sexual activity. One woman noted that she had no reason to be interested in sex, because she had not been introduced to sexual activity in a way that would have fostered such an interest:

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> *I don't care for a lot of different positions and things even right now today, you know? I'm just sort of, I'm not very, not very into the pursuit of sex or an ultimate orgasm.* [And how much do you think that's related to the trauma?] *I think it's directly related. I never really had a healthy appetite for it. I really didn't. And right now even in a relationship I'm just like, okay, they want me, okay cool, I'll act like I want them, and get them up off me in about 45 seconds, go wash up and be done. (African American, 46 years old)*

Several participants described a feeling of disgust when engaging in sexual behavior:

> *I didn't like sex. I was just doing it to pacify somebody else. Even if I didn't like them or nothing I just did it because they begged me. Oh my God this boy keep begging me and begging me let me just get him away. Just do it and then it's done…* [So, it wasn't because you felt like you wanted to have sex cause it made you feel great, made you feel good?] *No. It was disgusting to me, it hurt and it was disgusting and it hurt every time.* [How did you feel after?] *Even worse. (Multiracial, 31 years old)*

Even in the face of this aversion or disinterest, however, women continued to engage in unwanted and/or risky sexual activity in order to satisfy their partners. This may have been partly to avoid rejection, as many women expressed the distorted belief that sexual activity was the primary way to maintain men's interest in them.

> I feel like, like, oh maybe if I don't have sex, he probably won't want to be around me, or he probably wouldn't want to come over, but those thoughts come and go cuz that's my inconfidence speaking, and me not being confident in myself … those thoughts come and go. (African American, 22 years old)

When asked how CSA affected her relationship with men, one participant noted that her abuse, along with the lack of a caring father figure, led her to conflate any emotional bonding with sexual activity. As a result, she engaged in sexual behavior to meet her emotional needs:

> [Do you think the sexual abuse you experienced affects your relationship with men?] *How it affects me and men is—since I've never really had a, like, a father figure or anything, so sometimes I feel like sex is my way of connecting with a man. Making that connection. A bond. Because I didn't have a dad so I don't have a connection with a man and the only connection that is right there is like a sexual one. So I always happen to have a sexual connection with somebody. (African American, 22 years old)*

Some women did not consider sex "special" in any way, because of their history of sexual abuse; for them, sex was not something to be reserved for intimate partners as an expression of love, intimacy, and commitment. As one participant noted:

> … cuz sometimes women don't think of sex as sex, as something that is supposed to be special and pure between a man and a woman or husband and wife. It, when you've been abused so many times for so long, it just becomes like eating breakfast or something. It doesn't—kissing could probably be more sexual than having sex. (African American, 31 years old)

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In sum, consistent with the concept of traumatic sexualization, in which scripts for sexual behavior become distorted due to childhood sexual abuse experiences, many women reported disliking sex. Although we had not initially focused on this aspect of traumatic sexualization because we thought women who disliked sex would not engage in sexual risk behavior, we found that despite women's dislike of sex, they continued to engage in sex. In addition, also consistent with traumatic sexualization, many of the women had distorted beliefs about the role that sex plays in relationships. Women believed that men valued them only for their sexuality, they substituted the physical intimacy of sex for the emotional intimacy they desired, and they viewed sex as something that was ordinary, and not reserved for committed relationships. These distorted beliefs about sex placed women at risk for engaging in sexual risk behavior.

Shame, Guilt, and Self-Esteem—Several participants' responses revealed interrelated and overlapping themes of shame, guilt, and low self-esteem. Some women expressed shame and guilt in regards to their abuse, whereas others expressed shame and guilt in regards to their current risky sexual behavior. Past and present shame and guilt were intertwined; as a result, women held the distorted belief that they deserved "unhealthy" relationships and/or that they were "dirty" or damaged:

> I think some people when they're sexually abused they get in to a relationship with someone they feel like if this person is abusing them or beating them or doing anything that they're not supposed to, some people feel that they deserve that. At one point I felt that some, you know, the relationships and some of the things that happened to me in my adulthood that I deserved them because of what happened to me as a child. (African American, 47 years old)

> I just feel dirty. And I think it's kinda like, when you're younger and you can't, like if you've had a sexual abuse experience, you're not—, you can't really control that, but then as you get older you're like, you know what, I felt dirty because I felt like I could have controlled it. And even though I did consent to having sex, I don't feel like, I kinda feel like I lost control. I started feeling like, you know, I should have said no. I shouldn't have had sex with that person. I should have wore a condom. So everything is like, so when I say dirty, it's not just on the physical level, it's emotional too. I just feel dirty. (African American, 33 years old)

Not all women, however, reported currently feeling shame and guilt about their abuse. One woman had once experienced such feelings but had since overcome them; she expressed the belief that it was necessary to reject shame and guilt, as well as feelings of self-blame for the abuse, in order to move on with one's life:

> You got to get back to who you are. It's like, just because your sneakers got muddy, you stepped in mud and your sneakers got muddy, doesn't mean you can't rinse them off and get them back clean. And that's what you got to do with your inside. Like, you got to let that go, you got to release that. (multiracial, 31 years old)

Later, this participant was one of several women who noted the importance of the development of self-esteem in overcoming shame and guilt, as well as in fostering healthy

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sexual behaviors. When asked what would help women to engage in safer sexual practices, she noted:

> …they have to get the F— it mentality, you know, like hey, hey, I'm protecting myself, I love myself, I'm saving my life. You know what I mean? Because like I said, you gotta love yourself first for somebody else to love you. You have to respect yourself first before somebody else will respect you. So go get that. (multiracial, 31 years old)

Thus, women viewed reducing shame and guilt and improving self-esteem as key elements in reducing participation in unwanted sexual activity, as well as unprotected sexual behavior. Believing in their own self-worth was a necessary precursor to be motivated to protect themselves against HIV.

Most of the women with whom we spoke were engaging in unhealthy relationships and sexual risk behavior, despite understanding the connection between CSA and current sexual behavior. Thus, it was clear that our intervention would need to provide more than just information about the connection between CSA and sexual risk behavior; the intervention would need to explore and address motivations for sexual risk behavior that might be unique to women with a history of sexual abuse, as well as skills to develop healthier relationships and reduce sexual risk behavior. Based on these interviews, we identified trust, powerlessness and/or dominance, traumatic sexualization, guilt and shame, and self-esteem as important intervention targets.

Initial Intervention Development

In the next phase of intervention development, we began developing a targeted sexual risk reduction intervention for women with a history of CSA that addressed the psychological consequences of and maladaptive thoughts related to CSA (i.e., the TD constructs) as well as the antecedents of current sexual risk behavior (i.e., the IMB constructs). We initially made several key decisions about the *structure* of the intervention. We decided to conduct a group-based intervention, rather than an individual intervention, based on three considerations: (a) we thought that being in a group with other women who had experienced CSA and who were reporting on their thoughts, feelings, and behaviors related to CSA would help to normalize the experience and effects of CSA (Lynch, 2011); (b) we wanted to capitalize on the social support and self-esteem building that can occur in group-based interventions (Lynch, 2011); and (c) from a practical perspective, a multiple session, individually delivered intervention would be too expensive and impractical to be disseminated in the future.

Balancing the constructs we needed to address with the difficulty of retaining participants over multiple sessions, the length of time participants would be able to attend to and deeply process material (based on our prior intervention experience), and the hope that the intervention, if effective, would be disseminated, we decided to deliver the intervention over five weekly, 2-hour sessions. To limit women's exposure to trauma-related material in any given session, we decided to include both TD- and IMB-based elements in each session, as we were concerned that a 2-hour session focused only on trauma would be overwhelming for participants. We decided to begin each session with material that we anticipated would

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be more distressing (i.e., TD constructs) and to end each session with less distressing material (i.e., IMB constructs), to ensure that if participants became distressed the facilitators would have time to work with them to reduce their distress before the end of the session. We planned to conclude each session with a guided-imagery relaxation exercise, to ensure that participants left on a positive note.

Finally, we decided to focus intervention discussions on current thoughts and behaviors, rather than on details of past abuse experiences. Although we would discuss the effects of CSA and coping with CSA, we would not ask participants to share details of their abuse experience, because hearing these details could be distracting and/or distressing to other participants. We thought it would be possible to address the relationship between CSA and current sexual risk behavior without discussing details of the abuse.

Regarding the *content* of the intervention, we drew on existing interventions that addressed child sexual abuse (Cohen, Mannarino, & Deblinger, 2006; Harris & Anglin, 1998; Najavits, 2002), our own prior interventions addressing sexual risk behavior, as well as findings from our qualitative interviews. Drawing from a treatment manual for PTSD and substance abuse (Seeking Safety; Najavits, 2002), we incorporated grounding exercises and information on establishing boundaries. Drawing from the Trauma Recovery and Empowerment Model (TREM; Harris & Anglin, 1998), we adapted exercises relating to the identification of healthy, unhealthy, and abusive relationships, as well as relationship trust and coping strategies. We also used both motivational principles (Miller & Rollnick, 2012) and cognitive-behavioral principles (Greenberger & Padesky, 1995) to inform intervention delivery. Integrating the two guiding theoretical frameworks (i.e., TD and IMB models), and adding in self-esteem, which in the interviews was intertwined with shame and guilt, we set three primary goals for the intervention: (1) To provide participants with state-of-the-science *information* about childhood sexual abuse and HIV and STIs. (2) To *motivate* participants to reduce sexual risk behavior through exploration of: how childhood sexual abuse affects sexual behavior and maladaptive thoughts about sex (traumatic sexualization, shame/guilt); how childhood sexual abuse may affect relationship beliefs and interpersonal functioning (trust, powerlessness); riskiness of current sexual behavior; and evaluation of pros and cons of safer sex. (3) To provide participants with *skills* for: managing distressing memories (relaxation techniques and healthy coping behaviors); building self-esteem; challenging negative self-thoughts; and safer sex, including assertiveness skills, condom use skills, and self-management skills. We designed activities to address cognitions and behaviors of the participants, as well as empower the women and motivate behavior change.

Initial Intervention Delivery

We delivered the intervention to four groups of women. Based on our prior experience in working with intervention groups, we selected a group size of 6 to 8 women, to maximize discussion and participation while at the same time ensuring that facilitators could adequately manage the groups. We recruited women using the recruitment method and eligibility criteria utilized for the interview phase. We reimbursed women $40 per session attended. Written informed consent was obtained prior to all study procedures.

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Attendance at each session ranged from 2 to 7 women. The majority of participants were African American (n = 19); 3 participants were of mixed race, and 2 participants were White. Participants' ages ranged from 18 to 53 years (M age = 33 years; SD = 9.7). Fourteen participants had attended at least some college, 13 were unemployed, and 17 had an annual income of < $15,000. Two were married, and the majority (n = 19) had children.

All sessions began with an overview of what would be discussed that day; following Session 1, all sessions also began with a brief review of the material covered in the prior session and a discussion of the homework assignment from the prior group. All sessions ended with a summary of important points from the session, a relaxation exercise such as listening to soothing sounds, and a homework assignment. The purpose of homework assignments was to reinforce concepts discussed during the groups, to make sure women could apply the activities we discussed to their daily lives, and to encourage use of the activities outside of the groups, with the ultimate goal of continued changes in thoughts and behavior beyond the end of the groups. Examples of homework assignments included: (a) paying attention to negative self-thoughts, including moods and behaviors at the time of these thoughts; (b) using coping skills to deal with a stressful situation; and (c) reading a list of proudest moments and personal strengths at least once a day.

In **Session 1**, following introductions, reviewing intervention goals, and discussing ground rules, participants generated a list of current coping techniques. Women created a list of "healthy" coping techniques; some of the techniques they came up with included: taking time to think before reacting, problem solving, and engaging in physical activity. Women also created a list of "unhealthy" coping techniques: participants included avoidance, substance abuse, and self-harm on the list of unhealthy coping techniques. Women also acknowledged that, taken too far, many healthy coping techniques could become unhealthy; for example, women could use shopping as a distraction from unpleasant thoughts, but spending too much money could be harmful.

We also taught participants two relaxation techniques: deep breathing and grounding. We wanted to provide participants with cognitive-behavioral strategies and techniques that they could use to manage distress in between sessions, as well as during the sessions, in case the material distressed them. We then provided information about abuse, including the prevalence of CSA and the effects of CSA, to help normalize the experience and the effects of CSA (Cohen et al., 2006).

In this session, we introduced a thought record, a tool we used to assist with cognitive restructuring of participants' negative self-thoughts (Greenberger & Padesky, 1995). We worked with participants to identify negative self-thoughts; to identify the connection between thoughts, moods, and behaviors; and to replace negative thoughts with positive thoughts. For example, several women reported thinking they were stupid or inferior after making poor choices; with the help of the thought record, women were able to replace thoughts such as "I am stupid" with the thought "I didn't make the best choice that time, but next time I will make a better choice." Finally, we had participants read statements about HIV and STI transmission and prevention, and we discussed whether these statements were true or false.

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In **Session 2**, we showed a video of Oprah Winfrey discussing her sexual behavior in response to being sexually abused as a child, and used this video as a stimulus to explore how sexual abuse affects sexual behavior. Many women agreed with Oprah's experience of feeling "dirty" or "different," and discussed how being sexually abused was tied both to avoiding or disliking sex, as well as engaging in more or riskier sex. We reviewed a sample thought record, and had participants complete their own thought record about the last time they had sex, to try to determine negative self-thoughts that might be accompanying their sexual risk behavior. To build self-esteem, we had participants write down a list of times they were proud of themselves. Some of the proud moments that women commonly wrote down included: graduating from high school or college; stopping substance use; and parenting their child(ren). Finally, to enhance motivation for safer sex, participants placed sexual behavior cards along a continuum from no risk to low risk to high risk for HIV and explored where their own behavior fell on the continuum. Participants also discussed what it would be like for them if they were HIV-positive. During this discussion, women were able to imagine negative emotional reactions to an HIV diagnosis, such as depression, as well as the potential effects of HIV on relationships with significant others. Women were particularly concerned about the impact of HIV on their children, and were especially concerned about what would happen to their children if they died. Following this exercise, women came up with a list of the benefits of and barriers to condom use. The benefits of condom use reported by the women included less worry and less risk of HIV/STIs/pregnancy; condom use barriers reported by the women included sex not feeling the same and fear that their partner would accuse them of cheating.

Session 3 focused on healthy relationships and sexual assertiveness skills. We discussed "healthy," "unhealthy," and abusive relationships, boundaries in relationships, power in relationships, trust in relationships, and healthy and unhealthy relationship beliefs (Najavits, 2002); for all of these areas, we assisted participants in listing characteristics and developing definitions of these terms (Harris & Anglin, 1998). For example, women reported that characteristics of trustworthy individuals included consistency, the ability to work through problems, "having someone's back," communication, and sharing emotions and experiences. Indicators of untrustworthiness included lack of commitment, lying, keeping secrets, and infidelity. We then tied the discussion of each of these issues to women's own relationships, and discussed how CSA may affect each of these areas, as well as the risks of having too much or too little power, trust, and boundaries. For example, women reported that risks associated with too much trust included not protecting one's self and putting one's life into another's hands (as in the case of HIV risk); risks associated with too little trust included being unable to form emotional connections with others, or being unable to sustain a long-term intimate relationship.

Throughout these discussions of power, trust, and boundaries in relationships, we challenged distorted relationship thoughts. After these discussions, we asked women whether there was anything they thought they might change in their relationships. Many women reported that they now recognized that there was a balance between setting firm boundaries/having too much power/trusting too little and shutting down relationships, and they wanted to find a better balance in these areas.

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During this session, we had women create another thought record, about a time they were unhappy in their relationship. To build self-esteem, women wrote down their personal strengths; for example, several women reported pride in their courage, and in their perseverance in the face of obstacles. Finally, we watched a video of two partners discussing condom use, described the parts of assertive communication (i.e., saying something positive about the other person, clearly stating what you want, giving a reason for your request, summarizing the other person's point of view, saying it like you mean it), and had participants role play communicating assertively in a sexual situation.

In **Session 4**, we discussed why women may feel shame and guilt about being sexually abused, and how it might affect their current sexual risk behavior. Women created a personal responsibility pie for the abuse (Greenberger & Padesky, 1995), and assigned different sized "slices" of the pie to individuals they felt were in some way responsible for the abuse. Women frequently put their abuser and their caregiver on the pie; some women also included themselves, as well as their abuser's abuser. We then provided psychologically sensitive education about why child sexual abuse is never the child's fault, and discussed why many of the common guilt- and shame-related cognitions regarding the abuse, such as feelings of responsibility for not stopping the abuse, are inaccurate and/or do not indicate responsibility for the abuse. We then had participants who put themselves on their original "responsibility pie" redraw their pie, and we asked whether they had made any changes to their pie as a result of what we discussed. Most participants who originally put themselves on the pie now assigned themselves a smaller slice, although they generally still included themselves on the pie.

In this session, we also had participants identify enjoyable activities. We discussed how to identify situations that may lead to risky sex, and taught problem-solving steps to manage risky sex situations. Risky situations or triggers identified by participants included people, such as the father of one's child or an especially attractive man; places, such as bars/clubs or women's homes; moods, such as sadness, anger, and excitement; and substances, such as alcohol and illegal drugs. To practice problem-solving, women imagined a risky situation, brainstormed solutions, identified the pros and cons of each solution, chose the best option, and made a plan. For example, one common scenario was a child's father stopping by to drop off their son; this was risky because of the woman's relationship with her child's father, as well as because of their meeting in a private location. In response, participants listed potential solutions such as meeting the partner in a public place, having a friend over when the partner comes to the house, or having condoms readily available. Participants then identified the pros and cons of each solution. For example, sometimes the child's father might arrive without advance notice, which made it difficult to enlist the assistance of a friend. Participants then chose the best option, and made a plan; for example, the participant might decide to ask the child's father to call before coming over, so that a friend could be there when the child's father came to the house.

Finally, we demonstrated and practiced applying the male and female condom to bananas and to pelvic models. We used bananas, rather than penis models, because we were concerned that the participants (who often were abused by men) might be triggered and/or have a flashback if we used realistic-looking penis models.

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Session 5 included group reflections on what was learned, a review of some of the primary takeaway messages we hoped participants would remember from the group, and goal setting. In goal setting, facilitators described characteristics of a good goal (i.e., one that is specific, realistic, and under women's control) and helped participants develop a personal behavioral goal related to safer sex; examples of goals the participants chose included the following: no sex for 1 week; using condoms for every episode of sex for 1 week. We also discussed accomplishments over the past 5 sessions, and had participants add to their lists of strengths and proud moments based on what occurred, both in and outside of the groups, during that time. Finally, we set aside time for a special snack and socializing, to celebrate women's accomplishments during the group and to celebrate continuing with the group until the final session.

We discussed several themes or messages throughout all five intervention sessions. First, we focused on helping women link their current behavior (including sexual risk behavior) to their abuse. Facilitators were provided with semistructured questions throughout the intervention manual to help women make this connection. In addition, when a participant mentioned at any point during the groups engaging in behavior that is a known consequence of CSA (e.g., substance use), facilitators asked the participant if she thought that behavior was related to CSA, and explored how the behavior could be a consequence of sexual abuse. Second, we repeatedly acknowledged that women's thoughts, feelings, and behaviors were understandable and common reactions to abuse and/or ways to cope with an extreme situation; however, we reiterated that those thoughts, feelings, and behaviors were not currently keeping them safe or allowing them to live full lives (Harris & Anglin, 1998; Najavits, 2002). Finally, throughout the groups we helped participants to recognize thoughts reflecting poor self-esteem and negative self-thoughts, and worked to help them replace those thoughts with more positive, realistic thoughts.

Intervention Refinement—The Principal Investigator (PI) observed the refinement groups in person; afterwards, the PI and facilitators met to discuss the groups, including how the group received the material, which activities worked well, which activities did not work well, and whether we should revise or remove activities that did not work well. Sessions were consistently longer than 2 hours, so we also discussed whether we should remove material, how we could shorten activities, and the group facilitation skills needed to complete the sessions on time. Finally, we asked participants in this phase for feedback at the end of each session and at the end of the intervention, to help us further refine the intervention. Participants also provided quantitative ratings of various aspects of the intervention.

Two of the lessons learned were that (a) we needed to move more slowly through the material, and (b) we needed to increase the repetition of material to ensure that the women understood the points we were trying to get across. There were numerous reasons for why women were unable to move as quickly through the material as we anticipated: some women missed sessions, and had to be brought up to speed on the previous week's material; some women had comprehension difficulties; some women were less insightful or psychologically minded than we anticipated; some women had difficulty acknowledging risk or problems in their current relationships; and some women had difficulty staying on topic. The thought

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records were particularly difficult for participants, and we needed to break the presentation of the thought records down into smaller steps. Women found it especially difficult to identify negative self-thoughts; they tended to focus on angry thoughts they had about other people. We realized that anger was an easier emotion to identify and acknowledge than sadness or anxiety, and that women were not recognizing these other negative feelings or negative self-thoughts. Interestingly, women would express negative self-thoughts during other group activities, but many had trouble articulating these negative self-thoughts on the thought record; we hypothesize that these negative self-thoughts may have become so automatic that women did not even notice them.

We needed to shorten and remove some sections, in order to complete the sessions in 2 hours. We shortened many of the IMB-related sections, because women seemed to know much of this material already, and this material was easier to comprehend than the trauma-focused material. After completing the final refinements, the TD-focused components comprised approximately 75% of the intervention, and the IMB components comprised approximately 25% of the intervention. We also shortened the discussion of healthy and unhealthy relationship beliefs, and removed the soothing sounds at the end of each session (which participants did not like; also, it did not seem necessary as no participants were distressed by the end of the session).

As participants discussed their thoughts and feelings about the groups, we realized the self-esteem building activities were critically important. However, some of the self-esteem building activities were more difficult for participants to complete than we initially anticipated. Participants, in particular, had difficulty coming up with a list of their strengths. We organized this material so that in the first session participants wrote down their proudest moments, which were easier for them to identify and articulate than their strengths; in the next session, for women who were struggling to come up with a list of strengths, we were able to draw on their list of proudest moments and help them understand the strengths they displayed in those moments. Thus, we used concrete experiences to generate abstract characteristics.

In the first few refinement groups, women frequently did not complete their homework and/or bring their homework back with them. Many of the women had multiple competing demands on their time (e.g., children, jobs, health needs, etc.), and their homework was understandably not a priority. Although we recognized that women faced many other life challenges, we were concerned that if women were not motivated to think about and apply what they learned while the group was ongoing, they would not be able to apply what they learned after the group had ended, and thus the group would not lead to lasting behavior change. In addition, for the women who did complete the homework assignments, they often had misperceptions or difficulties applying the material in their lives, and the corrective feedback they received in the next session was critically important. Thus, we wanted to find a way to better encourage and reward completion of the homework. We decided that we would have a weekly drawing for a small prize (e.g., $10 gift card, scented soaps and lotions, candles); and entered into the drawing anyone who completed their homework and brought it back with them. This incentive motivated the women and led to more completed homework assignments.

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One of the ground rules we set in the first group was that we would not discuss details of the abuse, because it might be upsetting or triggering for other women. The women understood and agreed to this ground rule, but occasionally participants would reveal details of their abuse during the group. Many times these details provided necessary context and were not upsetting to other participants; for example, many participants revealed their relationship to their abuser (e.g., stepfather, family friend). Very occasionally, women would reveal additional details about their abuse, and facilitators would need to stop them and gently remind them of the ground rule and the purpose of that rule. Women responded well to this gentle reminder.

Intervention Satisfaction—Most women who participated in the intervention refinement phase were very satisfied with the intervention. Women in this phase thought the group was interesting ($M = 3.92$ on a 1 to 4 rating scale, with 4 being the highest/best; $SD = 0.27$), were comfortable in the group ($M = 3.77$; $SD = 0.56$), thought the topics covered in the group were important ($M = 3.96$; $SD = 0.20$), would recommend the group to others ($M = 3.91$; $SD = 0.34$), thought the group met their needs ($M = 3.49$; $SD = 0.67$) and overall were very satisfied ($M = 3.85$; $SD = 0.36$).

Future Research

We are currently conducting a pilot randomized controlled trial (RCT) to compare whether our newly developed intervention leads to greater reduction in sexual risk behavior than a typical IMB-based intervention, matched for intervention length (i.e., five, 2-hour sessions). We plan to deliver each intervention to 40 women with histories of CSA who report current sexual risk behavior. Primary outcomes, assessed pre-intervention and 3 months postintervention, will include the number of sexual partners and the number of episodes of unprotected sex (total, with a steady partner, and with nonsteady partners) in the past 3 months. We will also assess group differences in what we hypothesize to be the mechanisms of sexual behavior change (i.e., TD constructs, IMB constructs, and self-esteem). We hope this research will provide us with preliminary evidence of efficacy of our newly developed intervention, as well as give us estimates of effect sizes for use in planning a larger-scale RCT.

Future research might also explore HIV risk reduction intervention development for men who have sex with men (MSM) with a history of CSA. We are aware of one such intervention that is currently being evaluated; however, efficacy outcomes have not yet been reported (O'Cleirigh, 2016).

Conclusions

Child sexual abuse is associated with high levels of sexual risk behavior, and women who have been sexually abused respond less well to typical sexual risk reduction interventions; thus, there is a need to develop sexual risk reduction interventions targeted to these women's specific circumstances and the unique factors that lead to their sexual risk behavior. Using both quantitative and qualitative formative work, we developed an intervention that included the typical elements of sexual risk reduction interventions (i.e., information, motivation, and

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skills for sexual risk reduction), but that also addressed the sequelae of CSA that may lead to sexual risk behavior (i.e., traumatic sexualization, shame/guilt, trust, and powerlessness, as well as self-esteem). We refined the intervention based on facilitator and participant feedback, and are currently evaluating the intervention in a pilot RCT. Feedback from participants has been very positive. We hope that by addressing the unique factors that lead from CSA to adult sexual risk behavior, we can better meet the needs of women with a history of sexual abuse, and ultimately help them to reduce their sexual risk behavior and improve their sexual and mental health.

Acknowledgments

This research was supported by a grant from the National Institute of Mental Health under award number R34MH095362. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

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Highlights

- Childhood sexual abuse (CSA) is associated with later sexual risk behavior.
- Typical sexual risk reduction interventions do not meet the needs of abused women.
- We developed a sexual risk reduction intervention addressing sexual trauma.
- Pilot testing indicated that the intervention was acceptable and feasible.
- The intervention is currently being evaluated with a small RCT.