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

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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.

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).

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

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. 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.

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