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Intergenerational Pathways Linking Childhood Sexual Abuse to HIV Risk Among Women

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Abstract

Childhood sexual abuse is prevalent among women and it has been linked to a number of problems affecting women's health and functioning including women's parenting practices. Another body of literature has linked specific maternal parenting practices to daughters' HIV risk, including mother-daughter sex communication, monitoring/knowledge about daughters' activities, mother-daughter relationship quality, attitudes towards sex, and modeling of sexual values. This paper reviews and links these two bodies of literature to indicate how maternal histories of childhood sexual abuse may compromise mothers' parenting practices, which may in turn impact daughters' HIV risk. We also build upon Malow and colleagues' model (2006) of the associations between childhood sexual abuse and HIV risk to present a model indicating potential intergenerational pathways between childhood sexual abuse and HIV risk among women. The literature supporting this model and gaps in the literature are described.

Keywords

Childhood sexual abuse; HIV/AIDS, intergenerational relations, women's health; review

Childhood sexual abuse (CSA) involving contact (e.g. fondling or sexual intercourse) is experienced by approximately one in three women (Russell, 1983; Wyatt, Loeb, Solis, Carmona, & Romero, 1999) and is linked to a multitude of problems affecting women's health and functioning across their lifespan (Browne & Finkelhor, 1986; Wyatt, Carmona, Loeb, Ayala, & Chin, 2002). Relatively little research has examined the impact of CSA on mothers' parenting (Maker & Bittenheim, 2000); however, extant literature suggests women with histories of CSA are at greater risk for parenting difficulties (DiLillo & Damashek, 2003). Evidence from the adolescent literature has also identified specific maternal parenting practices linked with daughters' HIV risk.

The purpose of this paper is to review and link these two bodies of literature to indicate potential intergenerational pathways between childhood sexual abuse and HIV risk among women. Furthermore, while there are models of the associations between CSA and HIV risk behaviors (Malow, Devieux, & Lucenko, 2006; Miller, 1999), we are unaware of any models illustrating intergenerational pathways between CSA and HIV risk among women. Therefore, we will also build upon Malow and colleagues' model (2006) of the associations between childhood sexual

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abuse and HIV risk (see Figure 1) and present a model indicating how maternal histories of childhood sexual abuse may compromise mother's parenting practices, which in turn may impact daughters HIV risk (see Figure 2).

CSA & Associated Sequelae

CSA has been associated with subsequent psychological problems and victimization. Common mental health problems associated with CSA include posttraumatic stress disorder (PTSD; Rodriguez, Vande Kemp, & Foy, 1998), substance use problems (Simpson & Miller, 2002), and depression (Weiss, Longhurst, & Mazure, 1999). In a nationally representative study, women's CSA was significantly associated with the subsequent onset of 14 of 17 mood, anxiety, and substance use disorders after controlling for other childhood adversities (Molnar, Buka, & Kessler, 2001). Furthermore, the risk for psychiatric disorders seems to increase with CSA severity. Worse sequelae have been associated with childhood attempted or completed rape than childhood molestation followed by noncontact abuse (e.g. indecent exposure; Fergusson, Horwood, & Lynskey, 1996; Molnar, et al., 2001). Dissociation (Briere & Runtz, 1988), sexual revictimization (Classen, Palesh, & Aggarwal, 2005), and intimate partner violence (Feerick, Haugaard, & Hien, 2002) are also more common among women with histories of CSA than nonabused women. Many victims of CSA also report feelings of shame, which may persist over time (Browne & Finkelhor, 1986; Feiring & Taska, 2005).

CSA also undermines women's sexual health, functioning, and satisfaction (Browne & Finkelhor, 1986; Loeb, et al., 2002). Finkelhor and Browne (1985) have described how CSA may inappropriately shape sexuality leading to traumatic sexualization by teaching a child 1) to use sexual behavior for manipulating others, 2) misconceptions about sexual behavior and sexual morality, and 3) to link frightening memories with sexual activity. There is empirical evidence linking CSA with several measures of women's sexuality including more liberal sexual attitudes (Meston, Heiman, & Trapnell, 1999). Women with histories of CSA have also been found to report more negative sexual affect, including anger and fear, during sex acts and perceive themselves less as romantic/passionate (Meston, Rellini, & Heiman, 2006); Evidence suggests the relationship between CSA and higher levels of negative sexual affect is mediated by CSA survivors having lower levels of romantic/passionate sexual self-schemas (Meston, et al., 2006). Survivors of CSA have also been found to have less sexual assertiveness (Johnsen & Harlow, 1996) and condom self-efficacy (Brown, Lourie, Zlotnick, & Cohn, 2000) compared to peers without such histories. CSA is also linked with HIV risky sex behaviors among women including unprotected sexual intercourse, sex with multiple partners, trading sex, and adult sexual revictimization (Arriola, Loudon, Doldren, & Fortenberry, 2005; Senn, Carey, & Vanable, 2008) with greater HIV risk associated with more severe CSA histories (Senn, Carey, Vanable, Coury-Doniger, & Urban, 2007).

CSA & Parenting Practices

Fewer studies have examined the adverse impact of CSA on parenting (Maker & Bittenheim, 2000; Ruscio, 2001). Nevertheless, extant literature suggests CSA is a risk factor for some parenting problems among women including difficulty establishing appropriate hierarchical boundaries, permissive parenting, and the use of physical discipline (DiLillo, 2001; DiLillo & Damashek, 2003). Cohen (1995) compared mothers with histories of CSA to those without on seven parenting skills and found mothers with histories of CSA had lower mean scores on each of the parenting skills including communication, limit setting, and role image. In another study, childhood sexual abuse was associated with less maternal confidence after adjusting for physical and emotional abuse in childhood (Roberts, O'Connor, Dunn, & Golding, 2004). After controlling for childhood physical abuse, neglect, and negative family relationships, Banyard (1997) found CSA among mothers was associated with more use of physical violence as a

strategy for dealing with parent-child conflict and mothers wanting to change more about themselves as parents. Mothers with CSA histories have also been found to be more emotionally dependent upon their child than nonabused mothers (Burkett, 1991), particularly if they are dissatisfied with their relationship with their partner (Alexander, Teti, & Anderson, 2000). Furthermore, when forty women with histories of childhood or adolescent incest were interviewed about their experience as a parent, Armsworth and Stronck (1999) reported:

... the most frequent response was 'detached or numb.' Thirty percent stated that they felt 'handicapped' by a lack of skills or models for parenting, and 25% stated that they felt helpless or overwhelmed by parenting for similar reasons. Nearly a third described their behavior as being 'overcontrolling and over-protective,' and an equal number described the situations they created as being impulsive, abusive, or reenactments of their own past (p. 308).

Mothers who are survivors have also reported difficulties with trusting others, not knowing about what constitutes normal development, and boundaries (Cross, 2001). Despite accumulating literature suggesting women with histories of CSA have greater difficulty parenting (DiLillo & Damashek, 2003), we are aware of only one parenting intervention for mothers with CSA histories (Hiebert-Murphy & Richert, 2000).

Parenting Practices Associated with Adolescent HIV risk

Another body of literature has linked specific parenting practices, including parent-adolescent sex communication, parental monitoring/knowledge, parent-adolescent relationship quality, and parental attitudes towards sex and modeling of sexual values (Crosby & Miller, 2002; Kotchick, Shaffer, & Forehand, 2001), to adolescents' HIV risk. We refer to such parenting practices as HIV-related parenting practices. While this literature has largely focused on general parenting practices and adolescent risk behavior, we will review this literature and focus on the relationships between maternal HIV-related parenting practices and adolescent daughters' HIV risk for several reasons. First there is evidence suggesting mothers may particularly influence adolescent females' sexual health (Crosby & Miller, 2002). The context of girls' sexual development including HIV risk is also different for girls than boys. Girls are four times more likely to experience CSA involving vaginal, oral, or anal intercourse than boys (Fergusson, Lynskey, & Horwood, 1996). This directly increases adolescent girls' HIV risk exposure. Furthermore, gender identity and gender role socialization shape the sexual attitudes and behaviors of girls differently than boys (Amaro, Navarro, Conron, & Raj, 2002). These variables interact with other cultural variables, including those that limit women's economic power and control of resources, to affect female's HIV risk behavior (Logan, Cole, & Leukefeld, 2002; Wingood & DiClemente, 2000). As such, gender specific examinations of HIV-risk are warranted. A related literature review follows.

Mother-Daughter Sex Communication

Several aspects of mother-daughter sex communication, including the process, number of topics covered, and the frequency of communication about birth control or sexual values, have been linked to adolescent females' sexual risk taking (Dutra, Miller, & Forehand, 1999; Henrich, Brookmeyer, Shrier, & Shahar, 2006; Hutchinson, Jemmott, Jemmott, Braverman, & Fong, 2003; Luster & Small, 1994) and history of sexual intercourse (Usher-Seriki, Bynum, & Callands, 2008). Black and Hispanic adolescent females who reported 1) a more open and receptive process of sex communication with mothers or 2) covering more content of sexual communication with their mothers were less likely to engage in sexual risk taking (Dutra, et al., 1999). The number of sexually related topics (e.g. sexual intercourse, birth control, AIDS, sexually transmitted diseases, and condoms) about which urban African American and Latina adolescent females talked to their mothers has also been associated with fewer episodes of

sexual intercourse and unprotected intercourse at a 3-month follow-up (Hutchinson, et al., 2003); There was also evidence suggesting mother-daughter sex communication predicted fewer sexual partners, but this finding did not reach statistical significance.

Luster and Small (1994) found predominately white, 13–19 year old adolescent females who reported less frequent communication with their mothers about birth control had higher sexual risk such as having more than one sexual partner and rarely or never using contraception (Luster & Small, 1994). Other studies suggest mother-daughter communications about sex may interact with other parenting variables, including the parent-child relationship quality, to influence girls HIV risk. In a national longitudinal study, less extensive mother-daughter sex communication in the context of lower parent connectedness was associated with adolescent females being more likely to engage in sexual risk behavior a year later including not having used a condom in the past year, drinking or using drugs during their most recent sexual encounter, exchanging sex, and having ever had anal sex (Henrich, et al., 2006). While mothers perceptions of more frequent conversations about general sex topics has been linked to increased odds of African American adolescent girls having engaged in sexual intercourse, mothers perceptions of more frequent conversations about sexual values were associated with decreased odds of engaging in sexual intercourse in the same population (Usher-Seriki, et al., 2008). These findings suggest aspects of sex communication may be differentially related to adolescent females' sexual behavior.

Parental Monitoring/Knowledge

Parental monitoring/knowledge has also been linked to girls' HIV risk behavior. Parental monitoring has been described as parents' "attention to and tracking of the child's whereabouts, activities, and adaptations (Dishion & McMahon, 1998, p. 61)." Although some argue that it is really knowledge that parents have about what their children are doing outside the home and that knowledge is acquired from parents own efforts to learn about their children's activities and what children tell parents about their activities (Stattin & Kerr, 2000). We will not enter the debate here, but will rather provide a brief summary of the literature in the area of parental monitoring/knowledge that is associated with adolescent girls' risky sex behavior.

Most studies have examined parental monitoring as a general concept in relation to adolescent girls' HIV risk with little attention to the potential unique effects of maternal versus paternal monitoring. Nevertheless, a number of studies have shown relationships between adolescent girls' reports of what their parents inquire about and know regarding how they spend their time and their sexual risk (Crosby, DiClemente, Wingood, Lang, & Harrington, 2003; DiClemente, et al., 2001; Luster & Small, 1994; Rodgers, 1999). Evidence from one study showed that parental monitoring related to girls HIV risk was done primarily by mothers (DiClemente, et al., 2001). Luster and Small (1994) and Rogers (1999) found primarily white teenage females' who perceived their parents knew less about their whereabouts and showed less interest in how and with whom they spent their free time had increased odds of being in a high sexual risk group while those who reported more parental monitoring/knowledge were more likely to be in the low sexual risk group. In a prospective study, African American female adolescents who reported infrequent parental monitoring at baseline were found to be more likely to test positive for a sexually transmitted infection eighteen months later compared to peers who reported frequent parental monitoring (Crosby, et al., 2003). In another study, sexually active, black adolescent females who reported their parents knew less about where and with whom they spent their time away from home were more likely to test positive for a sexually transmitted disease, report not having used a condom during their most recent sexual intercourse, and report not having used any kind of contraception during their last 5 intercourse occasions compared to their peers who reported their parents knew more about their activities (DiClemente, et al., 2001); adolescent females reporting more parental knowledge about their activities were also

marginally more likely to report multiple sex partners in the past 6 months or a nonmonogamous sexual partner. This study, which was unique for noting that the primary provider of parental monitoring was mothers, provides evidence linking maternal monitoring/knowledge to adolescent females sexual risk taking.

Mother-Daughter Relationship Quality

Adolescent females' parent-child (Henrich, et al., 2006) and mother-daughter (Dittus & Jaccard, 2000; Usher-Seriki, et al., 2008) relationship quality have been linked to girls sexual risk and history of sexual intercourse. As previously mentioned, adolescent females reports of less parent connectedness (e.g. how close they felt to their mother/father or how warm and loving their mother/father is most of the time) in the context of less extensive mother-daughter sex communication was associated with increased odds of girls' subsequent sexual risk behavior a year later (Henrich, et al., 2006). The degree to which adolescents reported being satisfied with their maternal relationship has also been associated with a lower odds of engaging in sex or becoming pregnant and higher odds of using birth control approximately one year later (Dittus & Jaccard, 2000). More positive mother-daughter relationship quality, as measured by African American adolescent females responses to five questions including whether their mothers were warm and loving most of the time and their overall satisfaction with their relationship with their mother, has also been associated with a lower likelihood of girls having engaged in sexual intercourse (Usher-Seriki, et al., 2008).

Maternal Attitudes Towards Sex & Modeling of Sexual Values

There is also evidence linking maternal attitudes towards sex and modeling of sexual values to adolescent females' sexual behavior (Crosby & Miller, 2002; Dittus & Jaccard, 2000; Kotchick, Dorsey, Miller, & Forehand, 1999; Kotchick, et al., 2001; Usher-Seriki, et al., 2008; Whitbeck, Simons, & Kao, 1994). Whitbeck and colleagues (1994) noted that higher rates of sexual activity among adolescents living in single parent households may be explained by the fact that adolescents may be more aware of their mother's dating relationships and sexuality than those in two-parent households. They studied the relationships between mothers' dating, adolescents' and mothers' sexual attitudes, and adolescent sexual activity. A daughter's sexual activity was associated with 1) how soon after divorce mother began dating, 2) mother's sexual permissiveness (e.g. how wrong she thought it was for her child to have sexual intercourse or have a child) and 3) daughter's own sexual permissiveness, which consisted of her ratings of the contexts for which sexual activity was acceptable (Whitbeck, et al., 1994). Daughters' ratings of the contexts for which sexual activity was acceptable were in turn associated with mothers' sexual permissiveness and mothers dating (e.g. number of dating partners, frequency of dating, and how soon she began dating after divorce).

Both mothers' actual attitudes about sex and adolescent perceptions of maternal attitudes about sex have been linked to girls' sexual behavior (Dittus & Jaccard, 2000). Maternal disapproval and adolescents' perceptions of their mothers disapproval of sex were both associated with a lower likelihood adolescents would have sexual intercourse a year later; however, only adolescent perceptions of their mother's disapproval was associated with a lower likelihood of adolescent females becoming pregnant one year later. Interestingly, neither mothers' disapproval nor girls' perceptions of their mothers' disapproval were linked to adolescents having used birth control during their most recent sexual episode. Nevertheless, these findings suggest the both maternal attitudes about sex and adolescents' perceptions of them may both be important variables to consider in relation to girls HIV risk behaviors.

Additionally, in a sample of Black and Hispanic single mother families, mothers' sexual risk taking (e.g. number of men she had sex with and times she had used a condom in the past year) was positively associated with adolescent sexual risk-taking, though the relationship

disappeared when controlling for mother-adolescent sex communication and maternal attitudes about adolescent sexuality (Kotchick, et al., 1999). Furthermore, adolescent females who perceived greater maternal approval of premarital sex were more likely to have had sexual intercourse compared to adolescent females who perceived less maternal approval of premarital sex (Usher-Seriki, et al., 2008). This body of literature suggests mothers' 1) real and perceived sexual attitudes and modeling of sexual values, 2) communication with daughters about sex, 3) parental monitoring/knowledge about their daughters' activities, and 4) relationship quality with daughters are important maternal parenting behaviors linked to girls' sexual behavior and risk. It is therefore essential to identify mothers who may have particular difficulty in these areas in order to inform prevention and intervention efforts to strengthen maternal HIV-related parenting practices and reduce HIV risk in the next generation of girls.

Do Mothers with CSA histories have poorer HIV-related Parenting Practices?

While evidence reviewed above suggests women with histories of CSA may have greater difficulties parenting than nonabused women and specific maternal parenting practices may be linked to daughters HIV risk, we are unaware of studies examining whether a mother's history of CSA affects parenting practices that are known to be linked to daughters HIV risk. Nevertheless, we link these two bodies of literature below to indicate pathways for which maternal histories of CSA may be linked to daughters HIV risk below. We build upon Malow and colleagues' model (2006) of the associations between CSA and HIV risk and propose a model indicating potential intergenerational pathways linking CSA and HIV risk among women (see Figure 2).

CSA and its sequelae may affect mothers' communication with their daughters about sex, monitoring of their daughters activities, relationships with their daughters, attitudes about sex and modeling of sexual values. Some examples of such difficulties have been evident in our clinical and research experience with adult female survivors of CSA. Women with histories of CSA may have a particularly difficult time talking to their daughters about sex. For many women, talking to their daughters about sex may result in their daughters asking them about their own sexual experiences. Mothers with histories of CSA who anticipate such questions may avoid talking to their daughters about sex in order to avoid being confronted with their own traumatic sexual experiences. Furthermore, given evidence that mothers' knowledge, skills, comfort, and confidence is positively associated with discussions with their children about sex (Miller, et al., 2007) and the potential for mother's with histories of CSA to feel uncomfortable and not confident in talking with their children about sex, there may be a greater likelihood for mothers with such histories to avoid conversations about sex with their daughters. Additionally, evidence suggesting female survivors of CSA have more liberal sexual attitudes (Meston, et al., 1999) suggests these mothers might communicate more liberal attitudes about sex to their daughters than mothers without such histories.

Many mothers with histories of CSA lack trust about leaving their daughters with others and have reported overly monitoring their daughters in order to protect them from sexual assault. Women's concern and efforts to protect their children may also impact their daughters and their relationships with them. For example, one female survivor reported repeatedly examining her daughter's underwear and body for signs of sexual assault and other women have described not wanting female children in order to avoid worry about their daughters' safety. Additionally, higher rates of risky sex practices, including sex trade and multiple partners, among CSA survivors (Senn, et al., 2008), may be visible to the daughters of these women even if they don't suspect their daughters are aware of such behaviors. For example, some children may know their mother engages in sex work, others may be aware that their mother has multiple sexual partners, and some may learn about their mother's sexuality through overhearing her mother's conversations with others or direct conversations. Evidence suggesting some women

with histories of CSA may engage in role reversal (Alexander, et al., 2000; Burkett, 1991) with their children suggests potentially inappropriate conversations between mom and daughters may occur. Daughters' knowledge of such behaviors may impact her perceptions about her mother's sexual attitudes and in turn her own sexual behavior including HIV risk.

Relationships between Mothers' Sequelae of CSA and HIV-Related Parenting Practices

The sequelae of CSA may also be related to mothers' HIV-related parenting practices although there is a paucity of research examining these relationships. For example, the more posttraumatic symptoms a mother experiences in response to her sexual victimization the greater difficulty she may have talking to her child about sex since doing so may act as a trigger for mother. Furthermore, some of the sequelae associated with CSA, particularly those that compromise mothers' mental health and functioning, such as substance abuse, depression, and PTSD may undermine women's abilities to monitor their children effectively. There is evidence linking dissociation to lack of monitoring and supervision (Collin-Vezina, Cyr, Pauze, & McDuff, 2005).

Furthermore, PTSD, depression, and intimate partner violence have been linked to poorer parenting satisfaction and perceptions (Samper, Taft, King, & King, 2004; Schuetze & Eiden, 2005), mothers' distorted mental representations of their children and their relationship with their children (Schechter, et al., 2005), and children's impaired self-and other mental representations (Schechter, et al., 2007), all of which are likely to compromise parent-child relationship quality. PTSD, drug use, and intimate partner violence have also been linked to women's sexual risk taking and sexual revictimization (Coker, 2007; El-Bassel, et al., 1998; Risser, Hetzel-Riggin, Thomsen, & McCanne, 2006; Senn, Carey, Vanable, Coury-Doniger, & Urban, 2006), which may thereby affect mothers' modeling of sexual values. Finally, evidence demonstrating depression, and intimate partner violence (Schuetze & Eiden, 2005) mediate the relationships between CSA and parenting practices, suggests that these and other sequelae of abuse may also mediate the relationships between mothers histories of CSA and HIV-related parenting practices.

Relationships between Mother's Sequelae of CSA & Adolescent HIV risk

Some of sequelae of CSA among mothers may also have a direct relationship with adolescent's daughter's risky sex and sexual victimization, placing them at risk for HIV. For example, adolescents witnessing family violence were 3.6 times more likely than adolescents not having witnessed family violence to have sex without condoms (Voisin, 2005). Maternal drug use among mothers with a history of CSA (McCloskey & Bailey, 2000) and maternal psychiatric illness have also been identified as risk factors for CSA among children (Sidebotham, Golding, & The Alspac Study Team, 2001), which may increase adolescent females HIV risk exposure. These findings suggest that sequelae associated with mothers' histories of CSA, including maternal substance abuse, psychiatric illness, and intimate partner violence, may directly influence adolescent females CSA exposure and sexual risk taking.

Moderators

Finally, there are other factors that may moderate the proposed relationships between CSA and the variables captured in our model as mediators. Varying rates of IPV and substance abuse by age (Substance Abuse and Mental Health Services Administration, 2006; U.S. Department of Justice, 2007), suggest some of the relationships with those variables proposed in this model may be moderated by age. CSA is correlated with other types of abuse, including childhood physical abuse, emotional abuse, and neglect (Dong, Anda, Dube, Giles, & Felitti, 2003), and

those other forms of abuse may also influence the relationships between CSA and other variables in the model. Childhood abuse is linked with personality disorders (Battle, et al., 2004; Fossati, Madeddu, & Maffei, 1999), which in turn are associated with other co-occurring psychological disorders such as those identified as sequelae of CSA (Oldham et al., 1995). Maternal personality has also been linked with parenting behaviors (Desjardins, Zelenski, & Coplan, 2008; Smith, et al., 2007) and there is evidence that personality characteristics may be linked to HIV risk behaviors such as parental modeling of sexual values (Trobst, Herbst, Masters, & Costa, 2002). Therefore, personality may moderate relationships in the model. Furthermore, the development of psychopathology in response to traumatic events such as child sexual abuse is influenced by attachment relationships (Charuvastra & Cloitre, 2008; Riggs, et al., 2007). Finally, given findings that race/ethnicity moderated the relationships between domestic violence victimization and substance abuse (Sullivan, Cavanaugh, Ufner, Swan, & Snow, in press) and racial/ethnic differences in parental communication about sex (Hutchinson, 2002; Meneses, Orrell-Valente, Guendelman, Oman, & Irwin, 2006), parental monitoring (Crosby, et al., 2006), and substance use disorders (Substance Abuse and Mental Health Services Administration, 2006), race/ethnicity is also indicated as a potential moderator of the relationships modeled in figure 2.

Discussion

We have provided a brief review of the literature summarizing 1) how CSA affects women's functioning including parenting practices and 2) specific maternal parenting practices associated with daughters' risk of HIV infection. We linked these two bodies of literature to indicate how mothers' histories of CSA may be associated with daughters' HIV risk and presented a model indicating potential intergenerational pathways linking mothers' CSA to HIV risk among daughters. This model illustrates how a mother's history of CSA along with other characteristics may either directly affect or moderate specific outcomes, such as 1) maternal substance abuse, PTSD, and intimate partner violence and 2) maternal HIV-related parenting practices (e.g. mother-daughter sex communication, monitoring/knowledge of daughters activities, mother-daughter relationship quality, and maternal attitudes about sex and modeling of sexual values), which in turn impact daughter's HIV risk. As reviewed and illustrated in the model, problems associated with CSA among mothers, may be related to daughters' HIV risk indirectly through affecting mothers' HIV-related parenting practices, and directly through relationships between some of the sequelae of CSA among mothers, including intimate partner violence and substance abuse, having direct relationships with daughters' HIV risk.

This review and the model of relationships depicted are not intended to be an exhaustive summary of all the relationships linking maternal histories of CSA with daughters' HIV risk or affecting adolescent girls' HIV risk. Our goal here was to review and link two bodies of literature in order to identify some of the potential pathways linking CSA to HIV risk among women. There are of course other variables influencing girls HIV risk (Donenberg & Pao, 2005) including friends' behaviors and attitudes as well as other pathways which may link maternal CSA to girls HIV risk that warrant consideration in relation to the variables discussed. Additionally, while many of the relationships in this model may also apply to fathers and adolescent boys, we focused this review specifically on the intergenerational transmission of HIV risk among females for the reasons already stated including evidence suggesting mothers particularly influence their daughters' sexual health (Crosby & Miller, 2002; Whitbeck, et al., 1994). Intergenerational models linking CSA to HIV risk among men are also needed. Finally, while the literature reviewed focused on adolescent females risky sex practices or victimization including unprotected sex, the number of sexual partners, and CSA, we included IV drug use and early sexual debut in our model as adolescent daughters' HIV risk factors as we suspect that these HIV risk behavior among girls may also be related to maternal mental health

functioning and HIV-related parenting practices that we suggest may be compromised among mothers with histories of CSA.

Future Directions

There are calls for more research examining the associations between CSA and subsequent parenting (DiLillo & Damashek, 2003), such as the relationship between CSA severity and dysfunctional parenting and the impact of sequelae of CSA on parenting difficulties, in order to inform appropriate interventions (Ruscio, 2001). Given the evidence linking mothers' communication with daughters about sex, their monitoring and knowledge of daughters' activities, their mother-daughter relationship quality, their attitudes about sex and modeling of sexual values with daughter's HIV risk behaviors (Crosby & Miller, 2002; Kotchick, et al., 2001), research of these maternal parenting behaviors among mothers with histories of CSA may elucidate parenting difficulties and inform interventions to strengthen parenting skills in this population of women and prevent HIV risk in their daughters. Specifically, future research should address the following questions: Do mothers with histories of CSA, particularly those who were severely traumatized differ from women without histories of CSA in 1) how they talk to their daughters about sex, 2) their parental monitoring/knowledge of their daughters activities, 3) their mother-daughter relationship quality, or 4) attitudes about sex and modeling of sexual values? If so, do the sequelae associated with CSA mediate the relationships between maternal histories of CSA and mothers' HIV-related parenting practices? Studies exploring how mothers with histories of CSA deal with their daughters' sexuality in general may also clarify other parenting difficulties that are linked to daughters HIV risk. The answers to these questions will help inform the potential development of interventions for strengthening parenting practices among women with histories of CSA and reducing HIV risk in the next generation of women.

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Figure 1.
Childhood sexual abuse and HIV risk: A proposed model of the association (Malow, et al., 2006)

Figure 2.

Childhood Sexual Abuse and HIV risk: Intergenerational Pathways Among Women

Note: Solid lines indicate that, in general, all variables in one box are posited to impact the variables in the other box. Dashed lines indicate that only some variables are posited to impact variables in the adjoining box.