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The Pervasive Effects of Childhood Sexual Abuse: Challenges for Improving HIV Prevention and Treatment Interventions

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Even since the early days of the AIDS epidemic, childhood sexual abuse (CSA) and trauma have been found to be highly prevalent and associated with HIV transmission and acquisition across the diverse HIV risk groups[1] and particularly among men who have sex with men (MSM).[2,3] Thirty years in to the epidemic, there is a large and growing body of research documenting the complexity of the associations between childhood trauma and subsequent HIV risk taking: these pathways include increased difficulties appraising risk, confusion about sexual identity, depression, anxiety, hostility, dissociation, and substance and alcohol abuse.[4–10]

Two of the articles in the current issue correctly focus attention on the formative influences of childhood trauma generally[11] and CSA specifically[12] on HIV prevention and treatment outcomes. This new information provides important new insights that inform the existing research base supporting evidence that posttraumatic stress reactions to early trauma provides a conceptual model for understanding the multiple pathways that early life events result in sequelae potentiating the global AIDS epidemic. We conclude that integrated HIV prevention interventions must address sexual risk and other health outcomes within the posttraumatic stress context.

Using data from the National Epidemiologic Survey on Alcohol and Related Conditions, Sweet and Welles[12] provide the most current estimates of CSA across sexual minority subgroups and, for the first time, with a heterosexual referent group. These comparisons allow for reliable population-based estimates of CSA and for meaningful comparisons between sexual minorities and heterosexuals. Although a greater proportion of women (14.9%) reported CSA than men (5.2%), gay and bisexual identified men had dramatically higher odds of reporting CSA, (9.5 and 12.8, respectively), compared with heterosexual men. Similarly, lesbian and bisexual identified women had increased odds for reporting CSA (3.4 and 5.3, respectively), compared with heterosexual women. These estimated rates of CSA among sexual minority men and women are worrisome and are consistent with earlier reports using convenience samples.[13–15] In addition, in the Sweet and Welles analyses, sexual orientation moderated the relationship between CSA and odds of HIV/sexually transmitted infection incidence, increasing the odds most dramatically for gay and

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bisexual men. These findings provide the most compelling evidence to date identifying CSA as a critically important context for HIV prevention programming particularly for gay and bisexual men, the risk group most affected by HIV domestically. MSM represent 53% of all new HIV infections, and their incidence of other viral and bacterial sexually transmitted infections has been steadily increasing over the past decade.[16]

The findings presented by Pence et al[11] from the Coping with HIV/AIDS in the Southeast (CHASE) cohort that relate childhood trauma to accelerated HIV disease progression, medication nonadherence, and recent unprotected sex (among others) suggest also that childhood trauma not only confers increased vulnerability for HIV infection among sexual minorities (64% of the men in the sample identified as MSM) but also may interfere with optimal disease management/self-care behaviors among those already infected. With recent findings demonstrating that HIV treatment can be an effective tool in decreasing HIV incidence,[17–19] addressing the significant psychosocial barriers to effective HIV disease management assumes additional public health significance. Pence et al[11] consideration of putative mediators was extensive, and their sequential consideration of developmentally similar mediators (trait characteristics, recent stressful events, current mental health) may well be a valuable innovation for identifying the mechanisms linking distal childhood trauma to current adult behavior. However, their analyses did not identify the variables that explained the relationship of CSA with either antiretroviral therapy nonadherence or sexual risk behavior. In addition to the interpretations provided by the authors, it is possible that the way that they grouped potential mediators may not fully reflect the complexities of these interrelationships. Moreover, the diversity of their sample with respect to gender, race, and sexual orientation added the additional burden of characterizing complex developmental relationships that may differ substantially across HIV risk groups. A principal challenge for HIV prevention science is that the pathways leading to sexual risk taking are multiple and combine in heterogeneous ways, particularly for different populations.[20] For example, in the context of CSA, a young African woman in a serodiscordant marriage may or may not have similar concerns in negotiating safer sex as an American gay man meeting sexual partners in different venues, such as through online websites.

For gay and bisexual men, other psychosocial problems often co-occur in the presence of CSA histories and interact to increase their sexual risk behavior[21] with some indication that these complex interrelationships may operate in a similar, but not identical, way for young MSM.[22] More recent reports suggest that these pathways to HIV risk are further complicated by enduring disturbances to adult sexual behavior among MSM[23] and disturbances to romantic relationships among a general cohort of abused children followed to adulthood.[24] This work identifying syndemics (co-occurring psychosocial health problems) that increase risk for HIV[21–23] or interfere with HIV disease management among those already infected[6,25] may create opportunities to augment traditional moderation and mediation analyses to help explicate these complex pathways.

By incorporating the full range of psychosocial stressors into explanatory models regarding HIV risk and health behaviors after infection, the functional context that place individuals at risk for HIV or poorer disease course can be better understood. This will provide a full range of relevant prevention and treatment targets that can be foci of evidence-based interventions.[26,27] This may be particularly important as co-occurring psychosocial problems are not only associated with increased sexual risk for HIV but can also reduce the impact of traditional prevention interventions[28] or traditional models underlying such interventions.[29] The impact of childhood trauma may effect prevention and care engagement at multiple loci. For example, the EXPLORE Study found that HIV-uninfected MSM with CSA histories were at greater risk for acquiring HIV infection, reported higher rates of HIV

sexual risk behavior during the study, and derived less benefit from the HIV prevention intervention.[14]

Interestingly, previous analyses in both of the samples in the articles under consideration have examined posttraumatic stress as an important variable explaining adverse outcomes in HIV-related behavior. Within the National Epidemiologic Survey on Alcohol and Related Conditions data, the relationship between early life trauma (including CSA) and the odds of HIV infection were mediated, in part, by diagnostic levels of posttraumatic stress disorder (PTSD) among a nationally representative sample of US men.[30] Similarly, previous results from the CHASE cohort have linked trauma and symptoms of PTSD to health-related outcomes in HIV, independent of disease stage and treatment status.[31] These results were replicated in a cohort of HIV-infected MSM in primary care where PTSD and depression symptom severity were strongly and uniquely associated with multiple measures of functional impairment (general health estimates, pain, and role and work-related impairment) and increased health care utilization after controlling for background characteristics, disease stage, and treatment.[6]

How does a consideration of PTSD related to childhood trauma further our understanding of the complex relationships between CSA and HIV risk taking and nonengagement in care? Diagnostic levels of PTSD are characterized by enduring high levels of distress related to the CSA experience and associated impairment in functioning.[32] The 3 symptom clusters of PTSD[32] provide plausible mechanisms as to how this occurs. The symptoms clusters are (1) highly distressing intrusive thoughts of the sexual abuse, (2) avoidance of thoughts, emotions, and situations related to the abuse, and (3) hyperarousal. These intrusions, often thoughts (eg, self-blame, self-loathing) are then avoided through dissociation, substance use, or other avoidant-coping strategies. This avoidant stance, in sexual situations, can be hazardous as it interferes with the ability to confront risk, negotiate safer sex, and assert safety behaviors. Hyperarousal, chronic activation of the alarm response, interferes with the person's ability to distinguish safe from unsafe situations. In sexual situations, the symptoms of hyperarousal impede the ability to make accurate and realistic sexual risk appraisals. This may lead to a loss of self-efficacy (or other important social or cognitive variables integral to self-care), as one doubts one's ability to identify risk or one's ability take steps to offset it.

A CASE EXAMPLE

For example, a gay man with PTSD related to an experience of CSA will have clinically significant symptoms in each of the PTSD symptom clusters.

Intrusions

He experiences frequent distress from intrusive memories, thoughts, and feelings (often uncontrolled) related to his sexual abuse. His intrusive thoughts are generally negative thoughts about himself (eg, “It was my fault”, I am weak”, “I am unlovable”). His intrusive feelings are fear and self-loathing. These distressing thoughts and feelings are most distressing when he finds himself in adult sexual situations. He is fearful of being rejected by his sexual partner or exposed as a “bad” or “weak” person. This often leads him to focus on meeting his partners’ needs at the expense of protecting his own sexual health. As a result, he only uses condoms when his sexual partners insist.

Avoidance

To cope with this high level of distress in sexual situations, he drinks and gets high before sex. He distracts himself from the most distressing thoughts and feelings during sex by not being fully present or aware of his situation and he may even dissociate.

Hyperarousal

He generally feels on edge and is often irritable and angry and easily startled. He is not always sure if he is in a safe or risky sexual situation. This example demonstrates how the 3 symptom clusters of PTSD can account for many of the, seemingly disparate, pathways to sexual risk. The conceptualization accounts for high levels of negative emotion (depression, anxiety, hostility, anger), heavy alcohol and substance use, inaccurate sexual risk appraisals, and inadequate or absent condom negotiation skills. Recent studies from our group relating PTSD to unprotected sex among MSM[33] and identifying PTSD diagnosis as a mediator of childhood trauma and increased HIV incidence[30] provide some support for this conceptualization. In the presence of this level of posttraumatic disturbance, it is not surprising that MSM with CSA histories have difficulty deriving benefit from traditional HIV prevention interventions.[14]

Several recent HIV prevention intervention initiatives[34,35] have reported some success integrating traditional HIV risk reduction strategies into treatments that address the symptoms of CSA-related trauma. Sikkema et al[34] randomized 247 HIV-infected men and women with HIV and CSA histories to either a 15 session, group based intervention integrating coping strategies for CSA-related trauma and sexual risk reduction or to a time-matched control. The intervention was associated with significant reductions in sexual risk behavior that maintained at 1-year follow-up. Our group recently reported the initial outcomes of an individual-based 10-session intervention that integrated Cognitive Processing Therapy (an empirically supported treatment for PTSD) with sexual risk reduction counseling (Project THRIVE).[35] Forty-three HIV-uninfected MSM with histories of CSA and recent sexual risk for HIV were randomized to receive the intervention or standard HIV testing and counseling. The intervention was associated with a significant reduction in the proportion of those reporting sexual risk for HIV: at posttreatment, 61% of the control group and only 35% of the treatment group reported episodes of unprotected anal intercourse in the previous 3 months with HIV-infected or unknown status partners.[35] The intervention was also associated with a significant reduction in trauma symptom severity[36] and with significant increases in condom use self-efficacy[37] (one of the mechanisms hypothesized to link successful remediation of trauma symptoms to reductions in sexual risk).

Symptoms or clinically diagnostic levels of CSA-related PTSD may be important targets for HIV prevention and treatment, particularly among sexual minority men. The experience of being sexually traumatized during the developmental stage in childhood or adolescence clearly interferes with adult sexual behavior, later in life, in a way that places MSM at increased risk for HIV and may compromise optimal disease management for those already living with HIV. The findings from these integrated studies provide some promising indications of the benefit of addressing co-occurring and interfering CSA-related posttraumatic stress symptoms in the context of HIV prevention.

There are several challenges to developing and implementing these integrated programs. Mental health issues in HIV primary care settings are often underidentified and undertreated.[38–40] Increased screening for mental health issues in primary care will help to identify those most at risk and support triage and referral of those requiring these more intensive levels of treatment. These interventions, though considered brief from the perspective of mental health care, are considered lengthy by some from the perspective of public health, and as such may not be scalable in all settings, particularly those constrained by resources. However, thoughtful design in the development and efficacy testing of these interventions will help to promote sustainability in, or adaptation to, community settings such as the use of comparably trained mental health professionals as interventionists, or efficacy testing as community settings. As reviewed above, CSA frequently co-occurs with

other mental health and substance use issues and results in increasing individual risk to become HIV-infected and poorer HIV management after infection. Most ambulatory health care settings may not be able to support separate HIV prevention programs to address these differing issues. The development of modular integrated programs that have the flexibility to address the heterogeneous presentation of mental health and substance use issues may support the functionality and sustainability of these programs. As noted by the 2 new publications in this issue of J Acquir Immune Defic Syndr., failure to address childhood trauma and posttraumatic stress in the context of HIV may well potentiate the spread of HIV and limit treatment benefits for many others.

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