



## Strides towards Establishing Temporality of Associations between Social factors, Behaviors, and Sexual Risk Purposed to Enhance HIV Prevention Strategies Tailored to African American Women

Hill M\*

### Abstract

**Aim:** To explore behavioral associations identified over 1-decade of research on the sexual behaviors of populations at significant risk for HIV, African American women, to inform HIV prevention strategies.

**Methods:** A thorough review and investigation of literature on predictors of high risk behaviors informs how attention to culture and gender may increase intervention efficacy and improve health outcomes for populations who actively engage in high risk behaviors.

**Results:** Findings of ten years of research demonstrate that demographic factors like gender and race coupled with sexual behaviors work in concert to worsen existing vulnerabilities to new HIV cases among African American women.

**Conclusion:** Development and adaptation of theoretically and culturally grounded, prevention and intervention strategies targeting high risk substance use and sexual behaviors among African American women are warranted.

### Keywords

HIV; Sexually transmitted infections; Sexual behavior; African American women; Prevention intervention

### Introduction

The HIV prevention literature is saturated with exploratory research findings on risky sexual behaviors among vulnerable populations, presentation of factors that increase the risk of HIV, and behaviors commonly associated with traditional high risk sexual practices among some African Americans [1-13]. However, a gap remains in regards to the predictive value of high risk behaviors in relation to HIV incidence. Several associations and observations of relationships have been made, but the temporality of those associations remains unknown.

Research completed to date has aimed to confirm the associations identified in the literature among high risk populations in the South. This data will serve as preliminary data for longitudinal research aimed at assessing the predictive power of less commonly identified risky sexual behaviors, such as sexual infidelity, in relation to high risk sexual behaviors. By establishing temporality, we will confirm directionality of associations and adapt evidence-based interventions to address less established variables through HIV prevention efforts in the future.

Recent studies demonstrate evidence of sexual infidelity as a potentially important factor when predicting future episodes of sexual infidelity among heterosexual individuals in committed relationships [14,15]. As such, tolerance of sexual infidelity and perceptions of partner infidelity were discovered in recent qualitative research studies that were aimed at assessing the logic model of sexual decision making and predictors of sexual scripts among some African American women at significant risk for HIV through both condom less sexual activity and substance use [16,17]. Paxton et al. (2013) identified five themes when assessing relationship factors that are associated with condomless sex within some African American communities whereby women were aware of their male partner's engagement in high risk sexual behavior alongside their 'committed' sexual relationships. Those themes were self-esteem, social influences on behavior, relationship fidelity, sexual risk behavior, and partner's sexual behaviors. Collectively, these factors place many African American women at increased risk for HIV.

Conception of this research direction began with work on a federally funded partner-treatment study whereby African American men diagnosed with a sexually transmitted infection (STI) were treated and given treatment for their partner's to be treated as a two-pronged approach to decreasing STI incidence at the sexual network level [18, 19]. Findings of this research contributed to a secondary analysis of a study that compared STI prevalence of sexually active individuals enrolled at either a high or low risk venue where the risk level was based on the location's zip code STI prevalence. A significant difference in the quantity of high risk sex was associated with transactional sex, low income, and substance use [20]. In a separate study, gender differences were found between economic determinants and willingness to sustain physical health [21]. Gender differences were also found in relationship between symptoms of depression and willingness to sustain physical health among an at-risk African American cohort [22]. The prevalence of high risk sex behaviors were assessed among HIV negative women seeking care in a hospital setting and findings supported an association between HIV negative status and low risk sex behaviors within this sample [23]. Collectively, these research findings warrant ongoing research to discover the direction of association between variables described above. A special focus on African American women is warranted because the HIV prevalence rates are highest among African American women as compared to women in every other racial/ethnic group. This disproportionate burden of HIV risk to African American women is influenced by several factors that include a high prevalence of behaviors that are deemed as high risk and the partnership to partner's who routinely engage in high risk sex behaviors.

\*Corresponding author: Dr. Mandy J Hill, Department of Emergency Medicine, University of Texas Health Science Center at Houston, McGovern Medical School, Houston, Texas, USA, Tel: 713-500-7661; E-mail: mandy.j.hill@uth.tmc.edu

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Recommendations on new HIV prevention strategies that are tailored to African American women were presented, particularly women who in engage in two established HIV risk behaviors, condom less sex and substance use [24]. These recommendations guided the development of an in-depth interview tool that was facilitated among African American women in a hospital setting [16,17]. In addition, they informed the development of a few intervention strategies, including establishment of a survey with intervention components aimed at increasing the willingness of women to adopt prevention strategies that include the catch-up human papillomavirus vaccine [25] and pre-exposure prophylaxis as part of an HIV prevention strategy (Hill, personal communication). Findings of a recent secondary analysis support our focus on gender and race when tailoring interventions among populations that engage in condomless sex and substance use [26].

Based on the research findings over the last decade, key determinants in the establishment of theoretically and culturally grounded, prevention and intervention strategies targeting high risk substance use and sexual behaviors among African American women require aims to establish the direction of associations previously identified. A longitudinal intervention study design is needed to determine temporality, a required aspect in predicting causal associations. Establishing a causal direction is needed to properly tailor interventions in a way that will maximize the potential of preventing future HIV diagnoses. At present, perceptions of partner's infidelity, tolerance of infidelity, and personal acts of infidelity have been identified in several studies and now is the time to begin research that infers directionality in order to incorporate sexual infidelity as a metric in future interventions.

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## Author Affiliations

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Formerly Post-Doctoral Fellow, Indian Council of Medical Research, Department of Health Research, India