

Violence Exposure and Sexual Risk Behaviors for African American Adolescent Girls: The Protective Role of Natural Mentorship and Organizational Religious Involvement

Meredith O. Hope,¹  Daniel B. Lee,² Hsing-Fang Hsieh,³ Noelle M. Hurd,⁴ Haley L. Sparks,⁵ and Marc A. Zimmerman³

Highlights

- Violence exposure adversely implicates sexual health behaviors among African American girls.
- Religiosity and mentorship can offset the effect of violence exposure on sexual risk behaviors.
- Culturally relevant contexts shape adolescent health behaviors and promote resilience.

© 2019 Society for Community Research and Action

Abstract African American adolescent girls are at increased risk of being exposed to community violence and being diagnosed with a sexually transmitted infection. Fewer studies, however, have examined the protective roles of natural mentorship and organizational religious involvement as potential moderators that could lessen the effects of violence exposure on health risk behavior. Data from 273 African American ninth grade girls were used to test hypothesized independent and moderated-moderation models. Results suggest that natural mentorship and religious involvement were protective for girls who reported at least one mentor and moderate to high levels of religious involvement. Our findings may be relevant for community stakeholders and organizations that directly interact with religious institutions and community

programs that focus on outreach to African American adolescent girls.

Keywords Violence exposure · Sexual risk behaviors · Mentorship · Religion · Adolescents

Introduction

African American adolescent girls are more likely to be exposed to community violence than any other demographic group (Voisin, Kim, Michalopoulos, & Patel, 2017). This stems from the intersecting influence of race-based and gender-based oppressions that result in more contextual risk and fewer available protective resources for young Black women (Crenshaw, 1990). Violence exposure may compromise a wide range of positive health behaviors, increasing the likelihood of health risk behaviors in this population (Voisin, Hotton, & Neilands, 2014; Voisin, Patel, Hong, Takahashi, & Gaylord-Harden, 2016). Yet, not much is known about how violence exposure affects *sexual risk behaviors* for African American adolescent girls, despite substantial evidence documenting the association between violence exposure and sexual risk behaviors among African American women (Wilson, Woods, Emerson, & Donenberg, 2012; Woodson, Hives, & Sanders-Phillips, 2010; Wyatt et al., 2002). Sexual risk behaviors influence the likelihood of contracting a sexually transmitted infection or an unwanted pregnancy (Center for Disease Control & Prevention, 2018) and may play a vital role in shaping health disparities. Given that

✉ Meredith O. Hope
mohope@umich.edu

¹ Center for Research on Ethnicity, Culture, and Health, Department of Health Behavior and Health Education, School of Public Health, University of Michigan, Ann Arbor, Michigan, USA

² Children's Minnesota Research Institute, Children's Minnesota Hospitals and Clinics, Minneapolis, Minnesota, USA

³ Department of Health Behavior and Health Education, School of Public Health, University of Michigan, Ann Arbor, Michigan, USA

⁴ Department of Psychology, University of Virginia, Charlottesville, Virginia, USA

⁵ Department of Psychology, University of Michigan, Ann Arbor, Michigan, USA

violence exposure poses a risk for sexual health behaviors and outcomes, it is necessary to identify key socio-ecological assets and resources (e.g., organizational religious involvement, natural mentorship) that can promote positive health within the context of violence exposure.

Resiliency theory provides a strength-based framework for understanding the protective role of religious involvement and natural mentorship within the context of violence exposure (Fergus & Zimmerman, 2005). While many researchers examine risk factors associated with sexual health for African American girls, few discuss the role of sociocultural protective factors. Religious involvement and mentorship, in particular, have been separately documented as factors that promote positive sexual health behaviors (Hurd & Zimmerman, 2010a, 2010b; Nonemaker, McNeely, & Blum, 2003). Using a risk-protective model of resiliency theory, we build upon extant research by testing whether organizational religious involvement (ORI) and natural mentorship, in tandem, modify the link between violence exposure and sexual risk behaviors for African American girls. While researchers have characterized ORI and natural mentorship as protective in the context of stress, few have examined the protective influence of ORI and natural mentorship synergistically.

Violence Exposure and Sexual Risk Behaviors

African American girls and women are disproportionately more likely to shoulder the burden of violence exposure (Voisin et al., 2017) and sexually transmitted infections (STIs) and HIV infections than counterparts from other ethnic groups (Lang et al., 2011). In one study, African American girls and emerging adult women (i.e., ages 13–24) were 20 times more likely to be diagnosed with STIs and HIV than White counterparts (Center for Disease Control & Prevention, 2014). African American women are also more likely to witness and experience violence than those from other racial and ethnic groups (Voisin et al., 2017).

The racial patterning of violence exposure and STIs/HIV among African American girls and women is not coincidental. Research demonstrates a positive association between violence exposure and sexual risk behaviors among African American females (Clum et al., 2012; Córdova et al., 2018; Hsieh et al., 2017; Lang et al., 2011; Voisin, Chen, Fullilove, & Jacobson, 2015; Voisin, Hotton, & Neilands, 2016). To explain the link between violence exposure and sexual risk behaviors, Voisin, Jenkins, and Takahashi (2011) reported that violence exposure indirectly influenced sexual risk behaviors by shaping psychological problem behaviors and increasing negative peer influences. That is, violence exposure may invoke distress

and stress-related physiological dysregulation (Aiyer, Heinze, Miller, Stoddard, & Zimmerman, 2014; Perkins & Graham-Bermann, 2012). In separate studies, African American girls with higher levels of depressive symptomatology were more likely to have higher numbers of sexual partners, have sex under the influence of drugs or alcohol, not use condoms, and become diagnosed with sexually transmitted infections (Brawner, Gomes, Jemmott, Deatrack, & Coleman, 2012; Jackson, Seth, DiClemente, & Lin, 2015; Mazzaferro et al., 2006; Seth et al., 2011). Thus, violence exposure may contribute to sexual risk behaviors (e.g., Córdova et al., 2018). Consequently, healthcare professionals recommend screening for psychosocial factors, such as violence exposure, that may signal risky sexual health behaviors and outcomes (Lee et al., 2016). While researchers have documented associations violence exposure as a risk factor to sexual risk behaviors, only a few scholars have examined protective factors. Given the heterogeneity of sexual risk behaviors among African American adolescent girls exposed to high levels of violence, it is vital to identify factors (e.g., ORI, natural mentorship) shielding them against the deleterious effects of violence exposure.

Organizational Religious Involvement

Organizational religious involvement focuses on public and community aspects of religiosity (Smetana & Metzger, 2005) and factors into Black youth development (Wallace, Forman, Caldwell, & Willis, 2003). African American adolescents, for example, attend church more frequently than other racial groups (Smith, Denton, Faris, & Regnerus, 2002). Those attending Black churches can often access numerous spiritual, civic, and social resources that may facilitate youth resilience within the context of violence exposure (Bell & Mattis, 2000; Rubin, Billingsley, & Caldwell, 1994). These resources can also influence positive health behaviors by espousing messages and practices that encourage members to prioritize health behaviors (Campbell et al., 2007).

Organizational religious involvement can promote positive sexual health behavior outcomes for African American girls (McCree, Wingood, DiClemente, Davies, & Harrington, 2003; Steinman & Zimmerman, 2004). Greater religiosity, for instance, can reduce the odds of first-time sexual activity for girls by 16% (Rostosky, Regnerus, & Wright, 2003) and predict less sexual activity among adolescent girls (Ball, Armistead & Austin, 2003). These findings can be explained in three ways. First, many religious traditions conceptualize sexual activities as sacred and covenantal acts in marriage, and some African American girls who hold those beliefs may seek to incorporate those beliefs within their own lives. Second, increased ORI

provides opportunities to develop and participate in relationships with peers, adults, and leaders who affirm personal choices to postpone or abstain from sex (Landor, Simons, Simons, Brody, & Gibbons, 2011). Third, increased ORI may influence how girls internalize beliefs for themselves. It is also necessary to acknowledge the diversity of religious and personal views on sexuality within religious contexts, and that not all religious contexts meet the needs and experiences of participating youth.

The protective role of ORI for sexual risk behaviors (as discussed in the current study) may be partially explained by ORI's influence on mental health for African American youth (see Mattis & Mattis, 2011). In a recent study that focused on the *service participation* element of ORI, Sharma, Mustanski, Dick, Bolland, and Kertes (2019) found that organizational religious involvement was associated with less stress and fewer depressive symptoms among African American youth. Religious communities may also facilitate positive mental health in various ways. In and outside of services, religious activities may provide opportunities for congregants to tell their stories, share their struggles, and to provide and receive support (e.g., prayer meetings, Bible studies), and some aspects of these opportunities may function therapeutically (Cook, 2000; Gilkes, 1980; Griffith, English, & Mayfield, 1980; Griffith, Young, & Smith, 1984; McRae, Carey, & Anderson-Scott, 1998). Some activities, such as health education programs, address practical needs and concerns of congregants (Belgrave & Allison, 2013). Songs and sermons may communicate theological principles that prompt listeners to reframe life narratives more positively, to make healthy decisions, and to integrate religious beliefs into daily life (see Avent & Cashwell, 2015; Barnes, 2005). For example, African American adolescent girls who strongly endorsed the belief that God cares about them tended to report fewer sexual risk behaviors (Dalmida et al., 2018). Religious communities may also help congregants cultivate religious practices that can be implemented beyond the immediate religious community (e.g., regular prayer and reading scriptures). In addition, some religious communities encourage members to participate by using their talents and gifts (e.g., singing or playing instruments during services). To this end, Lee and Neblett (2019) surmised that religious involvement augments higher self-esteem and improved emotional regulation. Higher self-esteem and emotional regulation may, in turn, reduce the likelihood of engaging in health risk behaviors (Broderick & Jennings, 2012; Veselska et al., 2009). Within the scope of this paper, African American girls who are religiously involved may be accessing religious contexts where activities promote self-esteem, emotional regulation, and other psychological factors that partially undergird the protective effect of ORI.

As a caveat, ORI for African American girls may not always be protective against sexual risk behaviors (Bearman & Brückner, 2001; Landor et al., 2011). Udel, Donenberg, and Emerson (2011), for example, found that service attendance did not account for fewer sexual risk behaviors including using condoms among adolescent girls. The mixed findings may suggest that we need to identify additional protective factors that might augment the protective role of religious involvement and recommend future interventions. To this end, a few scholars have alluded to the synergistic effect between ORI and natural mentorship in bolstering resilience against stressors (e.g., violence exposure).

Natural Mentoring Relationships

Mentors from youths' preexisting social networks are considered natural mentors (in contrast to formal mentors who are paired with youth through programs (Hurd & Zimmerman, 2010b; Sterrett, Jones, McKee, & Kincaid, 2011). Natural mentors may be relatives, neighbors, or other adults in youths' everyday lives. A growing body of research points to the potential of natural mentors to help vulnerable adolescents display positive adaptation in the face of risk. Specifically, natural mentoring relationships have been linked to improved psychological well-being, more positive connections with peers and parents, academic success, and fewer problem behaviors among marginalized youth (DuBois & Silverthorn, 2005; Griffith, Hurd, & Hussain, 2019; Hurd, Sánchez, Zimmerman, & Caldwell, 2012; Hurd, Varner, & Rowley, 2013; Hurd & Zimmerman, 2010a; Klaw, Rhodes, & Fitzgerald, 2003; Kogan, Brody, & Chen, 2011; Sánchez, Esparza, & Colón, 2008; Wittrup et al., 2016). Scholars have suggested that natural mentoring relationships are a long-standing tradition in the African American community (Billingsley & Billingsley, 1968; Stack, 1974; Stewart, 2007). Traditionally, the extended kin network has been a central component of the African American family system with extended family members often living in close proximity and maintaining an active involvement in the lives of family members' children (Stewart, 2007). In addition, fictive kin relationships (i.e., family-like bonds that are formed in the absence of blood or legal ties) are a common phenomenon within the African American family system and serve to connect adolescents with adults (Chatters, Taylor, & Jayakody, 1994). Collins (1987) has described the tradition wherein African American women take on the role of other mothers or play mothers as a way to contribute to the development of African American youth.

Among African American girls, natural mentoring relationships may play a protective role in the context of exposure to violence. In comparison to boys, girls report more positive views of help-seeking (Garland & Zigler, 1994), are more open to assistance with problem-solving (Sullivan,

Marshall, & Schonert-Reichl, 2002), and are more likely to seek emotional support in times of need (Greenberger & McLaughlin, 1998). Girls also place greater value on intimacy and interpersonal connection relative to boys (Weisz, Sandler, Durlak, & Anton, 2005), which may increase their motivation to build mentorship relationships with caring adults in their everyday lives and make them more likely to benefit from these relationships, especially in the context of distressing experiences (Liang, Bogat, & Duffy, 2014). African American girls may see mentors as wiser than peers and consequently, feel more comfortable seeking advice and guidance from these trusted adults (Beam, Chen, & Greenberger, 2002). Additionally, they may allow themselves to be more vulnerable with their mentors than with their parents, teachers, or peers leading them to discuss their true concerns and receive meaningful support. In these ways, relationships with natural mentors can protect African American girls from the harmful effects of life stressors, such as exposure to violence, on developmental outcomes. Thus, African American girls who have supportive adults who can provide critical emotional support in times of need may be less likely to display negative outcomes, such as sexual risk behaviors, when exposed to violence (Hurd & Zimmerman, 2010a).

Organizational Religious Involvement and Natural Mentorship

Natural mentorship may augment the protective role of ORI for African American adolescent girls. First, ORI may facilitate the formation of high-quality, enduring mentorship relationships by situating youth within a familial, intergenerational network of caring adults (Mattis &

Watson, 2009; Rhodes & Chan, 2008). Contact with supportive, non-parental adult congregants may empower youth to (1) emotionally cope with stressful life experience, such as community violence exposure, and (2) engage in healthy behaviors within the context of stressful life events (Hurd & Zimmerman, 2010a,2010b). Second, African American adolescent girls who received mentorship from within or outside a religious institution (e.g., school teacher) may provide mentorship to younger female congregants. While the health benefits of providing mentorship has not been tested, mentorship has been associated with improved confidence and positive affect, which may mitigate the odds of engaging in sexual risk behaviors (Brewer, 2016).

The Current Study

To advance our understanding of violence exposure as a risk factor for sexual health behaviors, the first study aim was to examine the association between violence exposure and sexual risk behaviors using a prospective longitudinal design (Fig. 1). We hypothesize that higher levels of violence exposure will predict increases in sexual risk behaviors one year later. The second study aim was to assess whether ORI and natural mentorship separately buffer the association between violence exposure and sexual risk behaviors. Consistent with prior research that conceptualizes ORI and natural mentorship as moderators of the pathways between stress and health (Smith, McCullough, & Poll, 2003), we hypothesize that ORI and natural mentorship will moderate the association between violence exposure and sexual risk behaviors. The third study aim

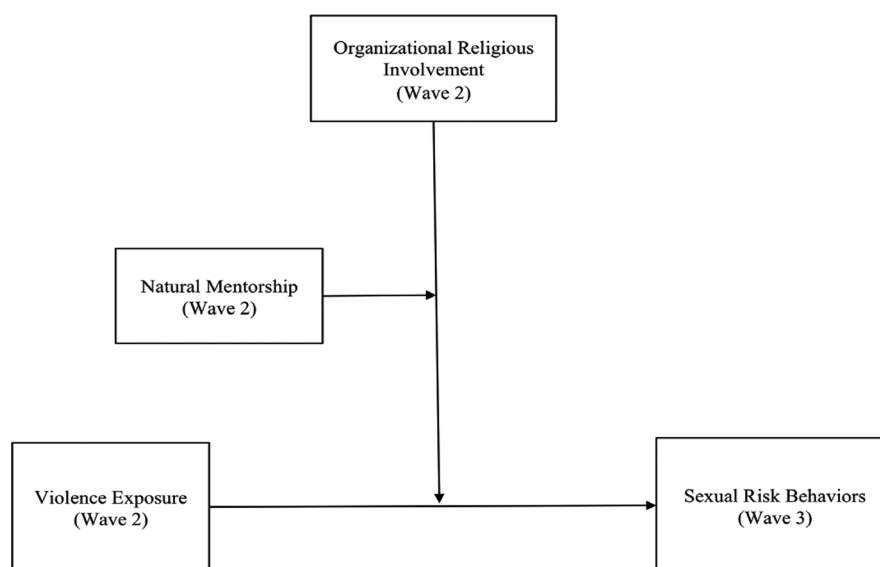


Fig. 1 Conceptual model delineating the moderated-moderation of the violence exposure and sexual risk behaviors link.

was to examine whether natural mentorship enhances the protective influence of ORI. In line with prior work that earmarks supportive relationships as a protective by-product of ORI (Hope, Assari, Cole-Lewis, & Caldwell, 2017), we hypothesize that natural mentorship will augment ORI's protective role (Fig. 1).

Method

Participants

Participants included 273 African American adolescent girls ($M_{\text{age}} = 15.83$, $SD_{\text{age}} = 0.63$) from the Flint Adolescent Study (FAS; see Zimmerman, Ramirez-Valles, Zapert, & Maton, 2000). Since 1994, the FAS has been an ongoing, longitudinal study that followed 850 ninth graders residing in Flint, Michigan. Participating youths were eligible if they (a) had a grade point average (GPA) of 3.0 or lower when they were in the eighth grade and (b) were not diagnosed with an emotional or neurodevelopmental disability. The original study aim of the FAS concerned examining risk and protective factors associated with high school dropout. The study had a 90% response rate over the first 4 years of data collection. Study variables were assessed at waves 2 and 3, as some of the key study variables, such as natural mentorship, were only available in these waves. We also examined waves 2 and 3 because the participants were adolescents within these measurement periods, the development period of interest for this study. Lastly, consistent with our research aim, only African American adolescent girls were examined in the current study.

Procedures

Participants completed a structured, face-to-face interview for 60 minutes at school or in a community setting with one of six trained interviewers. Participant-interviewer pairs were matched, when feasible, by gender and racial background (e.g., male/female, African American/White) (Hurd & Zimmerman, 2010b). Post-interview, participants completed self-administered paper-and-pencil questionnaires that asked sensitive information (e.g., sexual risk behaviors). The university institutional review board approved all study protocols, and participants were compensated for their time.

Measures

Sexual Risk Behaviors

Participants' sexual risk behaviors were measured at waves 2 and 3 by aggregating five items that represented sexual risk behaviors. On a 6-point Likert-type scale of 0 (*none*) to 5 (*12 or more times*), participants reported the

amount of sexual intercourse they had in their lifetime. The frequency of condom use during sexual intercourse was also reported on a 6-point Likert-type scale of 0 (*none*) to 5 (*always*). Two items, using a Likert-type scale of 0 (*not at all*) to 4 (*very much*), measured the participants' level of concern about getting [their partner] pregnant and contracting AIDS. Lastly, participants reported the number of sexual partners they had in the past year. Participants' responses were averaged at each wave to generate sexual risk behavior scores. The scale demonstrated acceptable reliability ($\alpha_{\text{wave 2}} = .71$, $\alpha_{\text{wave 3}} = .70$).

Violence Exposure

The frequency of violence exposure was assessed using a 5-item scale measuring the frequency of one's exposure to violent victimization and observation. Participants responded on a 5-point Likert-type scale of 0 (*0 times*) to 4 (*4 + times*), and the items were averaged to generate a violence exposure score for each participant. Sample items included "seen someone get shot, stabbed, or beaten up" and "had someone physically assault or hurt you." While scale reliability was .68 and below the recommended .70 threshold, it was noted that the alpha coefficient underestimates reliability for scales with non-normally distributed items (Sheng & Sheng, 2012).

Organizational Religious Involvement (ORI)

The participants' involvement with organized religious activities (i.e., service attendance, organized activities) was assessed with two items. The first item measured the frequency of service attendance on a Likert-type scale of 0 (*never*) to 6 (*more than once a week*). The second item measured the number of religious activities with which the participant reported involvement (e.g., choir, church greeter). Responses for the second item ranged from 0 to 3 activities. The frequency of service attendance and the number of activities were averaged to approximate the level of religious involvement.

Natural Adult Mentorship

Participants were asked to identify a non-parental, adult mentor (25 years or older) who mentored them that year. As the definition of traditional mentoring relationships requires that the mentor be an older and more experienced adult, we operationalized mentors in the current study as being individuals over the age of 25, given that the youths in this study were high school aged. Although some research has suggested that peer or near-peer mentoring interventions can also be effective, we were interested in understanding the potential effects of intergenerational

mentoring in the current study. Thus, our focus was on whether supportive relationships with adults may be of consequence for adolescent development. Participants who did not identify an adult mentor received a score of 0, while participants who identified a non-parental, adult mentor received a score of 1.

Covariates

All covariates were assessed at wave 2. The participants reported their age and their parents’ marital status (0 = *not married to father*, 1 = *married*). To approximate the participants’ socio-economic status, information was collected about their mother’s educational attainment (0 = *did not complete high school*, 5 = *graduate or professional school*). We also measured the participants’ self-reported stress levels during the past month using the 10-item Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983). Participants responded to items, such as “In the last month, how often have you felt confident about your ability to handle your personal problems?” using a 5-point Likert-type scale (0 = *never*, 4 = *very often*). Responses were averaged to approximate an overall stress score ($\alpha = .81$). Lastly, we used the 12-item Brief Symptom Inventory to measure participants’ self-reported level of psychological distress during the past week (Derogatis & Spencer, 1982). Participants used a 5-point Likert-type scale (0 = *never*, 4 = *very often*) to rank their levels of “feeling fearful,” “feeling blue (or sad),” or “suddenly scared for no reason.” Responses were averaged to approximate the level of psychological distress in each participant ($\alpha = .85$).

Analytic Approach

All analyses were implemented in SPSS version 24 (IBM Corp., Armonk, NY). Descriptive statistics and intercorrelations between study variables were examined to

characterize the data. To assess ORI and natural mentorship as independent moderators to the association between violence exposure and sexual risk behaviors (Aims 1 and 2), we used Hayes’ (2013) PROCESS macro (i.e., model 1). The PROCESS macro implements ordinary least square (OLS) estimation to compute model parameters for multivariate regression models. All interaction terms were constructed using mean-centered variables, and bias-corrected bootstrapped confidence intervals (i.e., 10,000 bootstrapped samples) were used to estimate model coefficients. For ORI, interactions were probed at the mean and plus and minus one standard deviation of the mean of each moderator variable. For mentorship, we probed interactions at 0 (no natural mentor) and 1 (a natural mentor identified).

To investigate whether natural mentorship augments the protective role of ORI (Aim 3), we tested a moderated-moderation model (i.e., model 3; Hayes, 2013) (Fig. 1). We tested a three-way interaction between violence exposure, ORI, and natural mentorship. This analytic approach is reflective of the risk-protective model of risk and resilience (Zimmerman, 2013). Similar to Model 1 (Hayes, 2013), OLS estimation was used to generate model parameters, all product terms were constructed using centered variables, and bias-corrected confidence intervals were used to estimate model coefficients. To interpret a three-way interaction, the effect of violence exposure on sexual risk behaviors was estimated across combinations between low ($-1 SD$), moderate (Mean), and high ($+1 SD$) levels of ORI, and between no natural mentor (0) and natural mentor identified (1).

Results

Preliminary Analysis

Descriptive statistics for the study variables are reported in Table 1. Sexual risk behaviors at wave 3 were

Table 1 Descriptive statistics and intercorrelations between study variables

	1	2	3	4	5	6	7	8	9	10	<i>M (SD)</i>
1. Age	–										15.83 (.63)
2. Parent’s marital status	–.13 ^a	–									20.8% Married
3. Mother’s educational attainment	–.25 ^b	–.03	–								1.62 (1.24)
4. Perceived stress	.10	.01	–.14 ^a	–							1.67 (0.54)
5. Depressive symptoms	.04	–.08	–.13 ^a	.42 ^b	–						0.96 (0.91)
6. Sexual risky behaviors	.14 ^a	–.23 ^b	–.05	.12 ^a	.13 ^a	–					2.38 (1.28)
7. Sexual risky behaviors (Wave 3)	.19 ^b	–.18 ^b	.06	.14 ^a	.12 ^a	.53 ^b	–				2.44 (1.26)
8. Violence exposure	.17 ^b	–.08	.05	.20 ^b	.15 ^a	.16 ^b	.24 ^b	–			0.64 (0.65)
9. ORI (wave 3)	–.10	.16 ^b	.02	–.02	–.11 ^a	–.13 ^b	–.11 ^a	–.04	–		2.45 (1.33)
10. Natural mentorship (wave 3)	.03	.04	–.01	–.18 ^b	–.13 ^a	.02	–.01	–.02	.09	–	75.1% Yes

All variables were measured at Wave 2, unless otherwise specified. ORI = Organizational religious involvement.

^a $p < .05$.

^b $p < .01$.

associated with sexual risk behaviors at wave 2 ($r = .53$), as well as violence exposure at wave 2 ($r = .24$). In addition, ORI at wave 2 and sexual risk behaviors at wave 3 were negatively associated ($r = -.11$).

ORI and Natural Mentorship as Separate Moderators

Violence exposure predicted higher levels of sexual risk behaviors one year later ($b = .25, p = .02$), whereas natural mentorship and ORI did not (see Table 2). Furthermore, ORI ($p = .26$) and mentorship ($p = .28$) did not independently moderate the association between violence exposure and sexual risk behaviors, net the effects of age, parents' marital status, mental health, perceived stress, and socio-economic status.

ORI and Natural Mentorship

We observed a three-way interaction between violence exposure, ORI, and natural mentorship ($b = -.41,$

$p = .04$; see Table 3), indicating that natural mentorship modifies the protective influence of ORI within the context of violence exposure. As shown in Table 3 and 4, the longitudinal association between violence exposure and sexual risk behaviors was not statistically significant at high levels of ORI and if a natural mentor was present. Of note, the association between violence exposure and sexual risk behavior was also mitigated at low levels of ORI when no natural mentor was present. With exception of these two conditional effects, violence exposure and sexual health behavior were associated at all levels of ORI, regardless of natural mentorship.

Discussion

Our results support the protective model of resilience. While violence exposure was associated with increases in sexual risk behaviors among African American adolescent

Table 2 ORI and natural mentorship as moderators

Outcome: sexual risky behaviors (wave 3)	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% CI
Age	.28	.11	2.60	.01	0.07, 0.49
Parent's marital status	-.05	.16	-0.31	.75	-0.38, 0.26
Mother's educational attainment	.12	.05	2.20	.03	0.01, 0.22
Perceived stress	.13	.13	0.96	.33	-0.13, 0.38
Depressive symptoms	.06	.08	0.74	.46	-0.10, 0.21
Sexual risky behaviors	.49	.05	9.54	<.01	0.39, 0.59
Violence exposure	.25	.10	2.43	.02	0.05, 0.45
ORI (wave 3)	-.02	.05	-0.40	.67	-0.11, 0.06
Natural mentorship (wave 3)	-.03	.16	-0.19	.84	-0.35, 0.28
Violence exposure × ORI	-.09	.08	-1.13	.26	-0.23, 0.06
Violence exposure × natural mentorship	-.27	.24	-1.09	.28	-0.75, 0.21
Constant	-3.57	1.72	-2.08	.04	-6.95, -0.19

Unless specified, all study variables were collected at wave 2. ORI = Organizational religious involvement.

Table 3 Moderated-moderation between violence exposure, ORI, and natural mentorship

Outcome: sexual risky behaviors (wave 3)	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% CI
Age	.27	.11	2.54	.01	0.06, 0.48
Parent's marital status	-.06	.16	-0.38	.71	-0.38, 0.26
Mother's educational attainment	.12	.05	2.24	.03	0.01, 0.22
Perceived stress	.13	.13	1.00	.32	-0.13, 0.39
Depressive symptoms	.04	.08	0.54	.59	-0.11, 0.20
Sexual risky behaviors	.50	.05	9.72	<.01	0.40, 0.60
Violence exposure	.28	.10	2.69	.01	0.75, 0.48
ORI (wave 3)	-.02	.05	-0.51	.61	-0.12, 0.07
Natural mentorship (wave 3)	-.05	.16	-0.28	.78	-0.37, 0.07
Violence exposure × ORI	-.08	.07	-1.07	.28	-0.23, 0.07
Violence exposure × natural mentorship	-.30	.24	-1.23	.22	-0.78, 0.18
ORI × mentorship	.04	.13	0.32	.75	-0.21, 0.28
Violence exposure x ORI x natural mentorship	-.41	.19	-2.11	.04	-0.79, -0.03
Constant	-3.48	1.71	-2.03	.04	-6.85, -0.11

Unless specified, all study variables were collected at wave 2. ORI = Organizational religious involvement.

Table 4 Conditional effects by ORI and natural mentorship

ORI	Mentorship	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% CI
Low	No Mentor	.19	.29	0.66	.51	−.38, .76
Low	1 Mentor	.43	.18	2.44	.02	.08, .78
Moderate	No Mentor	.52	.21	2.41	.02	.09, .94
Moderate	1 Mentor	.22	.12	1.85	.06	−.01, .45
High	No Mentor	.84	.34	2.51	.01	.18, 1.51
High	1 Mentor	<.01	.14	.01	.99	−.28, .28

Low = -1 *SD* from Mean, Moderate = Mean, High = $+1$ *SD* from Mean. ORI = Organizational religious involvement.

girls (Berenson, Wiemann, & McCombs, 2001; Voisin, 2005; Voisin, Hotton, & Neilands, 2018; Voisin et al., 2014; Wilson et al., 2012), we also found that high levels of ORI, when coupled with natural mentorship, can mitigate this association. That is, concurrent ORI in one-to-one mentorship relationships, as well as being situated within a larger network of caring peers and adults in church, may provide these girls with multiple opportunities across religious and other contexts to receive socio-emotional support through meaningful and supportive relationships. From a developmental perspective, as adolescents seek autonomy from their parents and adult caregivers, increased face time with natural mentors and being involved in a supportive religious community may be especially useful for receiving informational (e.g., safe sex advice) and emotional support within the context of stress. For instance, the protective mechanisms of ORI—such as social support, meaningful relationships, and adaptive coping—may be reinforced within a mentorship relationship.

Moreover, the concurrent contributions of natural mentorship and high levels of ORI may be protective for sexual risk behavior among African American adolescent girls. In light of the diverse mix and range of messages about sexual intercourse and sexual health behaviors expressed within religious communities across contexts (Eriksson, Lindmark, Axemo, Haddad, & Ahlberg, 2013), our results suggest an adult mentor may be helpful for African American adolescent girls as (and if) they get involved in sexual behavior. African American youth identifying as Christian or attending Black churches may be exposed to a range of Biblical values and messages on sexual health, such as AIDS awareness, premarital sex, and pregnancy (Harris, 2010; Moore, Berkley-Patton, Bohn, Hawes, & Bowe-Thompson, 2015; Williams, Dodd, Campbell, Pichon, & Griffith, 2014). Hertel and Hughes (1987) reported that Black churches tend to exhibit more acceptance and forgiveness toward those who have engaged in premarital sexual activity. Youth may have mixed reactions to these values and messages—in Moore et al. (2015), some adolescents anticipated being judged

or misunderstood, whereas others felt that church members accepted those who have sinned. They also perceived that girls were more likely and able to refuse sex than boys, but also acknowledged that sexual urges during adolescence may result in risky sexual behavior, regardless of gender (Moore et al., 2015). Given the varied experiences of African American adolescents in religious communities, additional natural mentorship, whether in or outside religious contexts, may provide an outlet for girls to discuss and process their responses to values and messages about sex and relationships with someone they trust, especially if girls report lower levels of ORI. In turn, the effect of violence exposure on subsequent sexual risk behaviors may be lessened for this group.

It is noteworthy to mention that moderate levels of ORI and having a natural mentor did not buffer the association between violence exposure and sexual risk behaviors. Moderate ORI, in comparison to high ORI, may reflect a decrement in the goodness-of-fit between youth and the religious community, which may diminish the protective role of religious involvement. Williams et al. (2014), for example, found that African American adolescents reported they felt anxious talking about sexual health with church members, observing that some adults acted hypocritically, gossiped, and judged others. These youths, while still religiously involved, may not be involved enough to develop significant connections with adults and peers in their congregation. As such, they may not fully benefit from the protective role of ORI, regardless of whether a mentor is present.

Although moderate levels of ORI might suggest an increase in access to social support and other resources within religious spaces, consideration of sociodemographic aspects of these communities may provide additional insight. First, level of social capital and financial support may play a role in what and how religious communities provide for participating youth. Some churches, especially those larger in size, not only tend to have youth groups respective to age and developmental stage, but also offer a wide range of spiritual and secular activities. For example, a recent review of the 2018–2019 calendar of events at Oak Cliff Bible Fellowship in Dallas, Texas, a predominantly Black church, highlights sports academies, college fairs, religious education for youth, youth art show and open mic nights, and gender-specific ministry events. In addition, some religious communities sponsor affiliated community centers, open to both members and the larger community, providing recreational spaces for youth and families (Rubin et al., 1994; Wittberg, 2013). Second, moderate ORI for African American adolescent girls may reflect experiences with religious diversity across denominational beliefs, traditions, and values regarding youth participation. There may be a low goodness-of-fit between

congregational espoused importance of youth participation and programming versus what actually exists within the congregation for youth (Barnes & Wimberly, 2016; Hardie, Pearce, & Denton, 2016). For example, youth-specific programs may yield low youth interest and participation; that is, opportunities to engage may be present but youth, for various reasons, may not be able to attend or find those programs meaningful, useful, or beneficial.

Third, moderate levels of ORI may reflect family religious practices and socialization. African American youths' ORI is significantly connected to and influenced by the ORI of parents and family members (Butler-Barnes, Martin, & Boyd, 2017). Consequently, adolescents may only attend services and participate in other activities if their family members also do so. Furthermore, family member involvement, often within the same religious context as the adolescent, may lessen the extent to which adolescents actively choose to be a part of that religious tradition and/or community (Cooper & Mitra, 2018). Given the prominent role of family ties for African American youth development, more information is needed to delineate the mechanisms that underscore the role of families on adolescent religious development, and the factors that promote or compromise adolescents' sense of religious autonomy.

Lastly, within this paper's focus on African American girls, matters related to the intersection of denominational and local community understanding of the role of girls and women may also factor into whether a moderate level of ORI provides enough protective benefit. For example, in some church spaces, African American women are active in all parts of worship services and ongoing programming, serving as preachers, ministers, elders, and deacons. Within some Black Church settings, the role of "church mothers" designates women as highly esteemed members and community leaders (Watson & Stepteanu-Watson, 2015). In contrast, some religious spaces do not provide articulated and visible leadership roles or participation spaces for women and girls beyond simple attendance; within such a context, girls who might demonstrate interests, gifts, and talents outside of community-supported roles for women and girls may not have the opportunity to participate beyond a moderate level.

As a caveat to our findings, low ORI and no natural mentorship also buffered the association between violence exposure and sexual risk behaviors. This finding may reflect the importance of accounting for other types of supportive relationships (e.g., peer support) and organizational activities (e.g., sports, volunteerism) during adolescence. Adolescents may cultivate a wide array of adaptive coping strategies that go beyond mentorship and religious involvement (Skinner & Zimmer-Gembeck, 2007). Older

adolescents (i.e., high school students), for instance, may be more adept at active coping and mobilizing peer and adult support without the aid of religious community, and engaging emotional regulation and other health-promotive coping strategies, religious or otherwise. Thus, while our results indicate that high levels of ORI are protective in the context of natural mentorship, it is also plausible that adolescents cope with violence exposure using coping strategies other than ORI and natural mentorship.

Limitations and Next Steps

Our study results must be considered with its limitations. First, although we found a significant association between violence exposure and sexual risk behaviors, our measure of violence was limited to physical violence. Scholars have suggested that other forms of violence, such as sexual violence, may increase the odds of sexual risk behaviors (e.g., Eisman, Stoddard, Heinze, Caldwell, & Zimmerman, 2015). Thus, it would be useful to assess how different forms of violence may influence sexual risk behaviors (Ozer, Lavi, Douglas, & Wolf, 2017). Second, while we reveal that the presence of a natural mentor can be protective when coupled with high levels of organizational religious involvement, we did not measure the quality of natural mentorship. The quality of mentorship may shape resilience among African American youth (e.g., mentorship warmth, type of support), so future research examining the interaction of ORI and natural mentorship would benefit by assessing mentorship quality (see Albright, Hurd, & Hussain, 2017; Hurd & Zimmerman, 2014). For example, mentorship quality and the nature of support provided have been shown to augment the protective effect of natural mentoring relationships (Hurd, Albright, Wittrup, Negrete, & Billingsley, 2018; Hurd & Sellers, 2013; Wittrup et al., 2016). Third, although our study identified that high levels of ORI paired with natural mentorship was protective, religious socialization for some African American girls may shape the protectiveness of religious involvement (Bowie, Juon, Taggart, Thorpe, & Ensminger, 2017; Butler-Barnes et al., 2017; Gutierrez, Goodwin, Kirkinis, & Mattis, 2014; Hope et al., 2017; Taggart et al., 2018). Thus, scholars should examine whether ORI may be particularly protective for Black youths who have received high levels of religious socialization from parents or other caregivers. Lastly, we did not have information about the socio-theological characteristics of religious communities (e.g., the type of principles espoused and practiced) (Martin, ; Martin, Bowles, Adkins, & Leach, 2011).

One significant component of organizational religious involvement is the frequency of attendance at services and

activities—the more time spent in a place may increase the likelihood of knowing and being known by individuals with whom they can form supportive relationships and access other benefits (Harley & Hunn, 2015; Taylor, Chatters, Lincoln, & Woodward, 2017; Williams, Irby, & Warner, 2016). Embedded within this analysis is the dearth of information regarding the types of faith communities that African American girls access in the 21st century. While many African American adolescents who report ORI do so within predominantly Black spaces (Masci & Mohamed, 2018; Mattis & Mattis, 2011; Smith et al., 2002), some may attend and/or find meaningful connections elsewhere, perhaps in less diverse or more multicultural and multiethnic faith contexts. However, the requisite information for examining the roles and contributions of these spaces is extremely limited, both within our study and in the current literature. This would be a useful direction for future research, as few researchers have considered and studied these factors as contributors to youth health outcomes.

The limitations notwithstanding, our results suggest that natural mentorship and ORI appear to help African American adolescent girls in processing negative life events and proceed to make safer sexual health choices. It is noteworthy that natural mentors may play a central role in enhancing the protective effects of organizational religious involvement. In addition, our findings may be useful for community youth workers who work to promote positive health and developmental trajectories for African American adolescents. Community youth workers could incorporate these findings into curriculum and programming that empower and support youth to identify sources of healthy relationships, both with peers and with natural mentors. Additionally, the prevalence of new media (e.g., Instagram, Snapchat) in the lives of adolescents (Anderson & Jiang, 2018; Weinstein, 2018) provides numerous possibilities for community youth workers to tailor and disseminate information about health-promotive behaviors to youth. In addition, within faith-based contexts, African Americans report involvement with religious communities that ascribes to theologies and traditions which encourage congregants to explore and use their spiritual gifts and natural talents in relational contexts (see Mattis & Jagers, 2001; Woods-Jaeger et al., 2015). The information yielded from our study, coupled with the respective religious beliefs and practices that center congregants as active and compassionate conduits for change, may assist those who currently work with African American girls or serve as leaders in religious communities to identify and support the development of individuals interested in being natural mentors. As violence exposure is a pernicious stressor with potentially long-term health consequences, it is vital

to understand factors that may help youth of African descent overcome its negative developmental influence. This may be critical for African American girls, as their intersecting identities may make them particularly likely to be victimized or otherwise exposed to violence (Crenshaw, 1990).

The current study focused on understanding factors that may facilitate resilience in the face of exposure to physical violence. Owing to the long-standing legacy of institutional racism (i.e., residential segregation), African American youths are more likely to reside and grow up in neighborhoods characterized by poverty, violence, and social adversities (Mitchell, Tynes, Umaña-Taylor, & Williams, 2015). Our results, in conjunction with findings from other studies, demonstrate that stressful life events (such as community violence exposure) adversely implicate health behaviors among African American girls (Wilson et al., 2012). These studies, when taken in combination with the present study, emphasize the need for societal interventions and policies that address the roots of community violence, such as improving the built environment (Krusky et al., 2015) and dismantling policies that reinforce residential segregations (Williams & Mohammed, 2013). It is clear that interventions are needed to reduce Black girls' exposure to violence and victimization as opposed to just identifying factors that promote resilience in the face of this risk. Unsurprisingly, lacking a sense of physical and psychological safety contributes to a multitude of negative developmental outcomes, such as reduced sexual health. Because girls of African descent are more likely to be subjected to violence as a consequence of intersecting influences of structural and interpersonal racism and sexism, it is clear that efforts to address structural inequality must attend to the role of patriarchal and white supremacist belief systems that create and sustain these inequities (Crenshaw, 1990).

ACKNOWLEDGMENTS National Institute on Drug Abuse (DA07484).

References

- Aiyer, S. M., Heinze, J. E., Miller, A. L., Stoddard, S. A., & Zimmerman, M. A. (2014). Exposure to violence predicting cortisol response during adolescence and early adulthood: Understanding moderating factors. *Journal of Youth & Adolescence*, *43*, 1066–1079.
- Albright, J. N., Hurd, N. M., & Hussain, S. B. (2017). Applying a social justice lens to youth mentoring: A review of the literature and recommendations for practice. *American Journal of Community Psychology*, *59*, 363–381.
- Anderson, M., & Jiang, J. (2018) Teens' social media habits and experiences. Available from: <https://www.pewinternet.org/2018/>

- 11/28/teens-social-media-habits-and-experiences/ [last accessed May 16 2019].
- Avent, J. R., & Cashwell, C. S. (2015). The black church: Theology and implications for counseling African Americans. *The Professional Counselor, 5*, 81–90.
- Ball, J., Armistead, L., & Austin, B. J. (2003). The relationship between religiosity and adjustment among African-American female, urban adolescents. *Journal of Adolescence, 26*, 431–446.
- Barnes, S. L. (2005). Black church culture and community action. *Social Forces, 84*, 967–994.
- Barnes, S. L., & Wimberly, A. S. (2016). *Empowering Black youth of promise: Education and socialization in the village-minded Black Church*. Abingdon, UK: Routledge.
- Beam, M. R., Chen, C., & Greenberger, E. (2002). The nature of adolescents' relationships with their "very important" non-parental adults. *American Journal of Community Psychology, 30*, 305–325.
- Bearman, P. S., & Brückner, H. (2001). Promising the future: Virginity pledges and first intercourse. *American Journal of Sociology, 106*, 859–912.
- Belgrave, F. Z., & Allison, K. W. (2013). *African American psychology: From Africa to America*. Thousand Oaks, CA: SAGE Publications.
- Bell, C. C., & Mattis, J. (2000). The importance of cultural competence in ministering to African American victims of domestic violence. *Violence Against Women, 6*, 515–532.
- Berenson, A. B., Wiemann, C. M., & McCombs, S. (2001). Exposure to violence and associated health-risk behaviors among adolescent girls. *Archives of Pediatrics and Adolescent Medicine, 155*, 1238–1242.
- Billingsley, A., & Billingsley, A. T. (1968). *Black families in White America*. Englewood Cliffs, NJ: Prentice-Hall.
- Bowie, J., Juon, H. S., Taggart, T., Thorpe, R. J., & Ensminger, M. (2017). Predictors of religiosity in a cohort of African Americans. *Race and Social Problems, 9*, 29–41.
- Brawner, B. M., Gomes, M. M., Jemmott, L. S., Deatrick, J. A., & Coleman, C. L. (2012). Clinical depression and HIV risk-related sexual behaviors among African American adolescent females: Unmasking the numbers. *AIDS Care, 24*, 618–625.
- Brewer, A. M. (2016). *Positive mentoring: Learning to shape and nurture talent and confidence*. In *Mentoring from a positive psychology perspective* (pp. 31–82). Cham, Switzerland: Springer.
- Broderick, P. C., & Jennings, P. A. (2012). Mindfulness for adolescents: A promising approach to supporting emotion regulation and preventing risky behavior. *New Directions for Youth Development, 2012*, 111–126.
- Butler-Barnes, S. T., Martin, P. P., & Boyd, D. T. (2017). African American adolescents' psychological well-being: The impact of parents' religious socialization on adolescents' religiosity. *Race and Social Problems, 9*, 115–126.
- Campbell, M. K., Hudson, M. A., Resnicow, K., Blakeney, N., Paxton, A., & Baskin, M. (2007). Church-based health promotion interventions: Evidence and lessons learned. *Annual Review of Public Health, 28*, 213–234.
- Center for Disease Control & Prevention. (2014). CDC factsheet: HIV among African American youth.
- Center for Disease Control & Prevention (2018). Substance use and sexual risk behaviors among youth. Available from: <https://www.cdc.gov/healthyyouth/substance-use/pdf/dash-substance-use-fact-sheet.pdf> [last accessed October 28, 2018].
- Chatters, L. M., Taylor, R. J., & Jayakody, R. (1994). Fictive kinship relations in Black extended families. *Journal of Comparative Family Studies, 25*, 297–312.
- Clum, G. A., Chung, S. E., Ellen, J. M., Perez, L. V., Murphy, D. A., Harper, G. W., & Hamvas, L. (2012). Victimization and sexual risk behavior in young, HIV positive women: Exploration of mediators. *AIDS and Behavior, 16*, 999–1010.
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior, 24*, 385–396.
- Collins, P. H. (1987). The meaning of motherhood in black culture and black mother/daughter relationships. *Sage: A Scholarly Journal on Black Women, 4*, 3–10.
- Córdova, D., Heinze, J. E., Hsieh, H. F., Mistry, R., Salas-Wright, C. P., Cook, S. H., & Zimmerman, M. A. (2018). Are trajectories of a syndemic index in adolescence linked to HIV vulnerability in emerging and young adulthood? *AIDS, 32*, 495–503.
- Cook, K. V. (2000). "You have to have somebody watching your back, and if that's God, then that's mighty big": The church's role in the resilience of inner-city youth. *Adolescence, 35*, 717–730.
- Cooper, W. P., & Mitra, R. (2018). Religious disengagement and stigma management by African-American young adults. *Journal of Applied Communication Research, 46*, 509–533.
- Crenshaw, K. (1990). Mapping the margins: Intersectionality, identity politics, and violence against women of color. *Stanford Law Review, 43*, 1241–1299.
- Dalmda, S. G., Aduloju-Ajijola, N., Clayton-Jones, D., Thomas, T. L., Erazo Toscano, R. J., Lewis, R., . . . & Lunyong, M. (2018). Sexual risk behaviors of African American adolescent females: The role of cognitive and religious factors. *Journal of Transcultural Nursing, 29*, 74–83.
- Derogatis, L. R., & Spencer, P. M. (1982). *Brief Symptom Inventory: Administration, scoring, and procedure manual*. Baltimore: Clinical Psychometric Research.
- DuBois, D. L., & Silverthorn, N. (2005). Natural mentoring relationships and adolescent health: Evidence from a national study. *American Journal of Public Health, 95*, 518–524.
- Eisman, A. B., Stoddard, S. A., Heinze, J., Caldwell, C. H., & Zimmerman, M. A. (2015). Depressive symptoms, social support, and violence exposure among urban youth: A longitudinal study of resilience. *Developmental Psychology, 51*, 1307–1316.
- Eriksson, E., Lindmark, G., Axemo, P., Haddad, B., & Ahlberg, B. (2013). Faith, premarital sex and relationships: Are church messages in accordance with the perceived realities of the youth? A qualitative study in KwaZulu-Natal, South Africa. *Journal of Religion and Health, 52*, 454–466.
- Fergus, S., & Zimmerman, M. A. (2005). Adolescent resilience: A framework for understanding healthy development in the face of risk. *Annual Review of Public Health, 26*, 399–419.
- Garland, A. F., & Zigler, E. F. (1994). Psychological correlates of help-seeking attitudes among children and adolescents. *American Journal of Orthopsychiatry, 64*, 586–593.
- Gilkes, C. T. (1980). The black church as a therapeutic community: Suggested areas for research into the black religious experience. *Journal of the Interdenominational Theological Center, 8*, 29–44.
- Greenberger, E., & McLaughlin, C. S. (1998). Attachment, coping, and explanatory style in late adolescence. *Journal of Youth & Adolescence, 27*, 121–139.
- Griffith, E. E., English, T., & Mayfield, V. (1980). Possession, prayer, and testimony: Therapeutic aspects of the Wednesday night meeting in a Black church. *Psychiatry, 43*, 120–128.
- Griffith, A. N., Hurd, N. M., & Hussain, S. B. (2019). "I Didn't Come to School for This": A qualitative examination of experiences with race-related stressors and coping responses among Black students attending a predominantly White institution. *Journal of Adolescent Research, 34*, 115–139.

- Griffith, E. E., Young, J. L., & Smith, D. L. (1984). An analysis of the therapeutic elements in a black church service. *Psychiatric Services, 35*, 464–469.
- Gutierrez, I. A., Goodwin, L. J., Kirkinis, K., & Mattis, J. S. (2014). Religious socialization in African American families: The relative influence of parents, grandparents, and siblings. *Journal of Family Psychology, 28*, 779–790.
- Hardie, J. H., Pearce, L. D., & Denton, M. L. (2016). The dynamics and correlates of religious service attendance in adolescence. *Youth and Society, 48*, 151–175.
- Harley, D., & Hunn, V. (2015). Utilization of photovoice to explore hope and spirituality among low-income African American adolescents. *Child and Adolescent Social Work Journal, 32*, 3–15.
- Harris, A. C. (2010). Sex, stigma, and the Holy Ghost: The Black church and the construction of AIDS in New York City. *Journal of African American Studies, 14*, 21–43.
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York, NY: The Guilford Press.
- Hertel, B. R., & Hughes, M. (1987). Religious affiliation, attendance, and support for “pro-family” issues in the United States. *Social Forces, 65*, 858–882.
- Hope, M. O., Assari, S., Cole-Lewis, Y. C., & Caldwell, C. H. (2017). Religious social support, discrimination, and psychiatric disorders among Black adolescents. *Race and Social Problems, 9*, 102–114.
- Hsieh, H. F., Heinze, J. E., Lang, I., Mistry, R., Buu, A., & Zimmerman, M. A. (2017). Violence victimization, social support, and Papanicolaou smear outcomes: A longitudinal study from adolescence to young adulthood. *Journal of Women's Health, 26*, 1340–1349.
- Hurd, N. M., Albright, J., Witttrup, A., Negrete, A., & Billingsley, J. (2018). Appraisal support from natural mentors, self-worth, and psychological distress: Examining the experiences of underrepresented students transitioning through college. *Journal of Youth and Adolescence, 47*, 1100–1112.
- Hurd, N. M., Sánchez, B., Zimmerman, M. A., & Caldwell, C. H. (2012). Natural mentors, racial identity, and educational attainment among African American adolescents: Exploring pathways to success. *Child Development, 83*, 1196–1212.
- Hurd, N. M., & Sellers, R. M. (2013). Black adolescents' relationships with natural mentors: Associations with academic engagement via social and emotional development. *Cultural Diversity and Ethnic Minority Psychology, 19*, 76–85.
- Hurd, N. M., Varner, F. A., & Rowley, S. J. (2013). Involved-vigilant parenting and socio-emotional well-being among Black youth: The moderating influence of natural mentoring relationships. *Journal of Youth and Adolescence, 42*, 1583–1595.
- Hurd, N. M., & Zimmerman, M. A. (2010a). Natural mentoring relationships among adolescent mothers: A study of resilience. *Journal of Research on Adolescence, 20*, 789–809.
- Hurd, N., & Zimmerman, M. (2010b). Natural mentors, mental health, and risk behaviors: A longitudinal analysis of African American adolescents transitioning into adulthood. *American Journal of Community Psychology, 46*, 36–48.
- Hurd, N. M., & Zimmerman, M. A. (2014). An analysis of natural mentoring relationship profiles and associations with mentees' health: Considering links via support from important others. *American Journal of Community Psychology, 53*, 25–36.
- Jackson, J. M., Seth, P., DiClemente, R. J., & Lin, A. (2015). Association of depressive symptoms and substance use with risky sexual behavior and sexually transmitted infections among African American female adolescents seeking sexual health care. *American Journal of Public Health, 105*, 2137–2142.
- Klaw, E. L., Rhodes, J. E., & Fitzgerald, L. F. (2003). Natural mentors in the lives of African American adolescent mothers: Tracking relationships over time. *Journal of Youth and Adolescence, 32*, 223–232.
- Kogan, S. M., Brody, G. H., & Chen, Y. F. (2011). Natural mentoring processes deter externalizing problems among rural African American emerging adults: A prospective analysis. *American Journal of Community Psychology, 48*, 272–283.
- Krusky, A. M., Heinze, J. E., Reischl, T. M., Aiyer, S. M., Franzen, S. P., & Zimmerman, M. A. (2015). The effects of produce gardens on neighborhoods: A test of the greening hypothesis in a post-industrial city. *Landscape and Urban Planning, 136*, 68–75.
- Landor, A. M., Simons, L. G., Simons, R. L., Brody, G. H., & Gibbons, F. X. (2011). The role of religiosity in the relationship between parents, peers, and adolescent risky sexual behavior. *Journal of Youth and Adolescence, 40*, 296–309.
- Lang, D. L., Sales, J. M., Salazar, L. F., Hardin, J. W., DiClemente, R. J., Wingood, G. M., & Rose, E. (2011). Rape victimization and high risk sexual behaviors: Longitudinal study of African-American adolescent females. *Western Journal of Emergency Medicine, 12*, 333–342.
- Lee, D. B., & Neblett, E. W. (2019). Religious development in African American adolescents: Growth patterns that offer protection. *Child Development, 90*, 245–259.
- Lee, K. C., Ngo-Metzger, Q., Wolff, T., Chowdhury, J., LeFevre, M. L., & Meyers, D. S. (2016). Sexually transmitted infections: Recommendations from the U.S. Preventive Services Task Force. *American Family Physician, 94*, 907–915.
- Liang, B., Bogat, G. A., & Duffy, N. (2014). Gender in mentoring relationships. In D. DuBois & M. Karcher (Eds.), *Handbook of youth mentoring* (2nd edn, pp. 159–174). Thousand Oaks, CA: Sage.
- Martin, P. P. (2011). Theology and faith development among African American adolescents: An integrative approach. In N. E. Hill, T. L. Mann & H. E. Fitzgerald (Eds.), *African American children's mental health: Development and context* (pp. 151–171). Santa Barbara, CA: Praeger.
- Martin, P. P., Bowles, T. A., Adkins, L., & Leach, M. T. (2011). Black mega-churches in the Internet age: Exploring theological teaching and social outreach efforts. *Journal of African American Studies, 15*, 155–176.
- Masci, D., & Mohamed, B. (2018). Black Americans more likely to be Christian, Protestant than US adults overall. Available from: <https://www.pewresearch.org/fact-tank/2018/04/23/black-americans-are-more-likely-than-overall-public-to-be-christian-protestant/> [last accessed May 15 2019].
- Mattis, J. S., & Mattis, J. H. (2011). Religiosity and spirituality in the lives of African American children. In N. E. Hill, T. L. Mann & H. E. Fitzgerald (Eds.), *African American children and mental health* (pp. 125–149). Santa Barbara, CA: ABC-CLIO.
- Mattis, J. S., & Jagers, R. J. (2001). A relational framework for the study of religiosity and spirituality in the lives of African Americans. *Journal of Community Psychology, 29*, 519–539.
- Mattis, J. S., & Watson, C. R. (2009). Religion and spirituality. In H. A. Neville, B. M. Tynes & S. O. Utsey (Eds.), *Handbook of African American psychology* (pp. 91–102). Thousand Oaks, CA: Sage Publications Inc.
- Mazzaferro, K. E., Murray, P. J., Ness, R. B., Bass, D. C., Tyus, N., & Cook, R. L. (2006). Depression, stress, and social support as predictors of high-risk sexual behaviors and STIs in young women. *Journal of Adolescent Health, 39*, 601–603.
- McCree, D. H., Wingood, G. M., DiClemente, R., Davies, S., & Harrington, K. F. (2003). Religiosity and risky sexual behavior in African-American adolescent females. *Journal of Adolescent Health, 33*, 2–8.

- McRae, M. B., Carey, P. M., & Anderson-Scott, R. (1998). Black churches as therapeutic systems: A group process perspective. *Health Education and Behavior, 25*, 778–789.
- Mitchell, K. J., Tynes, B., Umaña-Taylor, A. J., & Williams, D. (2015). Cumulative experiences with life adversity: Identifying critical levels for targeting prevention efforts. *Journal of Adolescence, 43*, 63–71.
- Moore, E., Berkley-Patton, J., Bohn, A., Hawes, S., & Bowe-Thompson, C. (2015). Beliefs about sex and parent-child-church sex communication among church-based African American youth. *Journal of Religion and Health, 54*, 1810–1825.
- Nonnemaker, J. M., McNeely, C. A., & Blum, R. W. (2003). Public and private domains of religiosity and adolescent health risk behaviors: Evidence from the National Longitudinal Study of Adolescent Health. *Social Science and Medicine, 57*, 2049–2054.
- Ozer, E. J., Lavi, I., Douglas, L., & Wolf, J. P. (2017). Protective factors for youth exposed to violence in their communities: a review of family, school, and community moderators. *Journal of Clinical Child and Adolescent Psychology, 46*, 353–378.
- Perkins, S., & Graham-Bermann, S. (2012). Violence exposure and the development of school-related functioning: mental health, neurocognition, and learning. *Aggression & Violent Behavior, 17*, 89–98.
- Rhodes, J. E., & Chan, C. S. (2008). Youth mentoring and spiritual development. *New Directions for Youth Development, 118*, 85–89.
- Rostovsky, S. S., Regnerus, M. D., & Wright, M. L. C. (2003). Coital debut: The role of religiosity and sex attitudes in the Add Health Survey. *Journal of Sex Research, 40*, 358–367.
- Rubin, R. H., Billingsley, A., & Caldwell, C. H. (1994). The role of the Black church in working with Black adolescents. *Adolescence, 29*, 251–266.
- Sánchez, B., Esparza, P., & Colón, Y. (2008). Natural mentoring under the microscope: An investigation of mentoring relationships and Latino adolescents' academic performance. *Journal of Community Psychology, 36*, 468–482.
- Seth, P., Patel, S. N., Sales, J. M., DiClemente, R. J., Wingood, G. M., & Rose, E. S. (2011). The impact of depressive symptomatology on risky sexual behavior and sexual communication among African American female adolescents. *Psychology, Health & Medicine, 16*, 346–356.
- Sharma, S., Mustanski, B., Dick, D., Bolland, J., & Kertes, D. A. (2019). Protective factors buffer life stress and behavioral health outcomes among high-risk youth. *Journal of Abnormal Child Psychology, 1–13*.
- Sheng, Y., & Sheng, Z. (2012). Is coefficient alpha robust to non-normal data? *Frontiers in Psychology, 3*, 34.
- Skinner, E. A., & Zimmer-Gembeck, M. J. (2007). The development of coping. *Annual Review of Psychology, 58*, 119–144.
- Smetana, J. G., & Metzger, A. (2005). Family and religious antecedents of civic involvement in middle class African American late adolescents. *Journal of Research on Adolescence, 15*, 325–352.
- Smith, C., Denton, M. L., Faris, R., & Regnerus, M. (2002). Mapping American adolescent religious participation. *Journal for the Scientific Study of Religion, 41*, 597–612.
- Smith, T. B., McCullough, M. E., & Poll, J. (2003). Religiousness and depression: Evidence for a main effect and the moderating influence of stressful life events. *Psychological Bulletin, 129*, 614–636.
- Stack, C. B. (1974). *All our kin: Strategies for survival in a Black community*. New York: Harper & Row.
- Steinman, K. J., & Zimmerman, M. A. (2004). Religious activity and risk behavior among African American adolescents: Concurrent and developmental effects. *American Journal of Community Psychology, 33*, 151–161.
- Sterrett, E. M., Jones, D. J., McKee, L. G., & Kincaid, C. (2011). Supportive non-parental adults and adolescent psychosocial functioning: Using social support as a theoretical framework. *American Journal of Community Psychology, 48*, 284–295.
- Stewart, P. (2007). Who is kin? Family definition and African American families. *Journal of Human Behavior in the Social Environment, 15*, 163–181.
- Sullivan, K., Marshall, S. K., & Schonert-Reichl, K. A. (2002). Do expectancies influence choice of help-giver? Adolescents' criteria for selecting an informal helper. *Journal of Adolescent Research, 17*, 509–531.
- Taggart, T., Gottfredson, N., Powell, W., Ennett, S., Chatters, L. M., Carter-Edwards, L., & Eng, E. (2018). The role of religious socialization and religiosity in African American and Caribbean Black adolescents' sexual initiation. *Journal of Religion and Health, 57*, 1889–1904.
- Taylor, R. J., Chatters, L. M., Lincoln, K. D., & Woodward, A. T. (2017). Church-based exchanges of informal social support among African Americans. *Race and Social Problems, 9*, 53–62.
- Udell, W., Donenberg, G., & Emerson, E. (2011). The impact of mental health problems and religiosity on African American girls' HIV-risk. *Cultural Diversity and Ethnic Minority Psychology, 17*, 217–224.
- Veselska, Z., Geckova, A. M., Orosova, O., Gajdosova, B., van Dijk, J. P., & Reijneveld, S. A. (2009). Self-esteem and resilience: The connection with risky behavior among adolescents. *Addictive Behaviors, 34*, 287–291.
- Voisin, D. R. (2005). The relationship between violence exposure and HIV sexual risk behaviors: Does gender matter? *American Journal of Orthopsychiatry, 75*, 497–506.
- Voisin, D. R., Chen, P., Fullilove, R., & Jacobson, K. C. (2015). Community violence exposure and sexual behaviors in a nationally representative sample of young adults: The effects of race/ethnicity and gender. *Journal of Social Service Research, 41*, 295–306.
- Voisin, D. R., Hotton, A. L., & Neilands, T. B. (2014). Testing pathways linking exposure to community violence and sexual behaviors among African American youth. *Journal of Youth and Adolescence, 43*, 1513–1526.
- Voisin, D. R., Hotton, A., & Neilands, T. (2016). Exposure to Community Violence and Sexual Behaviors Among African American Youth: Testing Multiple Pathways. *Behavioral Medicine, 44*, 19–27.
- Voisin, D. R., Hotton, A., & Neilands, T. (2018). Exposure to community violence and sexual behaviors among African American youth: testing multiple pathways. *Behavioral Medicine, 44*, 19–27.
- Voisin, D. R., Jenkins, E. J., & Takahashi, L. (2011). Toward a conceptual model linking community violence exposure to HIV-related risk behaviors among adolescents: Directions for research. *Journal of Adolescent Health, 49*, 230–236.
- Voisin, D. R., Kim, D. H., Michalopoulos, L., & Patel, S. (2017). Exposure to community violence among low-income African American youth in Chicago: A latent class analysis. *Violence & Victims, 32*, 1116–1132.
- Voisin, D. R., Patel, S., Hong, J. S., Takahashi, L., & Gaylord-Harden, N. (2016). Behavioral health correlates of exposure to community violence among African-American adolescents in Chicago. *Children and Youth Services Review, 69*, 97–105.
- Wallace, J. M., Forman, T. A., Caldwell, C. H., & Willis, D. S. (2003). Religion and U.S. secondary school students: Current patterns, recent trends, and sociodemographic correlates. *Youth and Society, 35*, 98–125.
- Watson, J., & Stepteau-Watson, D. (2015). Troubled waters: The black church in Mississippi, a single subject case study. *Social Work and Christianity, 42*, 369–384.

- Weinstein, E. (2018). The social media see-saw: Positive and negative influences on adolescents' affective well-being. *New Media and Society*, 20, 3597–3623.
- Weisz, J. R., Sandler, I. N., Durlak, J. A., & Anton, B. S. (2005). Promoting and protecting youth mental health through evidence-based prevention and treatment. *American Psychologist*, 60, 628–648.
- Williams, T., Dodd, D., Campbell, B., Pichon, L., & Griffith, D. (2014). Discussing adolescent sexual health in African-American churches. *Journal of Religion and Health*, 53, 339–351.
- Williams, R., Irby, C., & Warner, R. (2016). “Church” in Black and White: The organizational lives of young adults. *Religions*, 7, 90.
- Williams, D. R., & Mohammed, S. A. (2013). Racism and health I: Pathways and scientific evidence. *American Behavioral Scientist*, 57, 1152–1173.
- Wilson, H. W., Woods, B. A., Emerson, E., & Donenberg, G. R. (2012). Patterns of violence exposure and sexual risk in low-income, urban African American girls. *Psychology of Violence*, 2, 194–207.
- Wittberg, P. A. (2013). Faith-based umbrella organizations: Implications for religious identity. *Nonprofit and Voluntary Sector Quarterly*, 42, 540–562.
- Wittrup, A. R., Hussain, S. B., Albright, J. N., Hurd, N. M., Varner, F. A., & Mattis, J. S. (2016). Natural mentors, racial pride, and academic engagement among Black adolescents: Resilience in the context of perceived discrimination. *Youth and Society*, 51, 463–483.
- Woods-Jaeger, B. A., Carlson, M., Taggart, T., Riggins, L., Lightfoot, A. F., & Jackson, M. R. (2015). Engaging African American faith-based organizations in adolescent HIV prevention. *Journal of Religion and Health*, 54, 1358–1374.
- Woodson, K. M., Hives, C., & Sanders-Phillips, K. (2010). Violence exposure and health related risk among African American adolescent female detainees: A strategy for reducing recidivism. *Journal of Offender Rehabilitation*, 49, 571–584.
- Wyatt, G. E., Myers, H. F., Williams, J. K., Kitchen, C. R., Loeb, T., Carmona, J. V., . . . & Presley, N. (2002). Does a history of trauma contribute to HIV risk for women of color? Implications for prevention and policy. *American Journal of Public Health*, 92, 660–665.
- Zimmerman, M. A. (2013). Resiliency theory: A strengths-based approach to research and practice for adolescent health. *Health Education and Behavior*, 40, 381–383.
- Zimmerman, M. A., Ramirez-Valles, J., Zapert, K. M., & Maton, K. I. (2000). A longitudinal study of stressbuffering effects for urban African-American male adolescent problem behaviors and mental health. *Journal of Community Psychology*, 28, 17–33.