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Community Violence Exposure and Risk Taking Behaviors Among Black Emerging Adults: A Systematic Review

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Abstract

Black emerging adults ages 18-29, particularly those residing in predominantly black urban communities, are at risk for community violence exposure (CVE). This potentially traumatic event may induce traumatic stress reactions for black emerging adults that contribute to their engagement in violence perpetration, substance use and/or sexual risk-taking behaviors as a way to cope with their experiences. To address these identified concerns and make recommendations for future research, this article identifies and synthesizes results from studies that have examined CVE and its association with violence perpetration, substance use, and sexual risk-taking behaviors among black emerging adults. We use the term "black" throughout the article to refer to a socially constructed racial group or identity and recognize that this group, like all other racial groups in the United States, are ethnically heterogeneous. A systematic review of the literature was conducted to identify studies that (1) included a measure of CVE (2) included a measure of violence perpetration, substance use, or sexual risk-taking behaviors, and (3) included primarily black emerging adults. Results showed CVE rates as high as 83% for black emerging adults. CVE was significantly associated with substance use, but findings on the association of CVE with violence perpetration and sexual risk-taking behaviors were mixed. Also, there was a lack of consistency in measures used to assess CVE, suggesting that future research should seek to identify "gold standard" measures and consider whether they have been examined with black emerging adults or similar populations and whether they capture the experiences of this unique population. Furthermore, studies investigating factors that might moderate and/or mediate the relationship between CVE, violence perpetration, substance use, and sexual risk-taking behaviors among black emerging adults are warranted.

Introduction

Emerging adulthood is defined as the period from the late teens through the twenties, with a focus on ages 18–29, where exploration and instability are common (Arnett, 2016). It is a period of identity exploration, instability, self-focus, transition, and possibilities. Emerging

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adulthood is also a high risk time for violence victimization. Emerging adults in the United States are exposed to crime and violence at alarming rates and are victims of crime significantly more often than youth in other developed countries (U.N. Office on Drugs and Crime, 2011). Moreover, black emerging adults may be at greater risk for violence victimization due to their disproportionate overrepresentation in neighborhoods marked by high rates of CVE (Centers for Disease Control and Prevention, 2009; Federal Bureau of Investigation, 2015; Truman & Langton, 2014). Although violence cuts across social and demographic lines, CVE is highest in poor urban communities (Richters & Martinez, 1993). Although black emerging adults represent only 2.4% of the total U.S. population, they account for 26% of emerging adults who are victims of an assault that result in injury and 20.7% of homicide victims (Centers for Disease Control and Prevention, 2017; Federal Bureau of Investigation, 2014; U.S. Census Bureau, 2016). Furthermore, CVE is a potentially traumatic event that may result in deleterious outcomes for black emerging adults.

The Diagnostic and Statistical Manual 5th Edition (DSM-V) defines a traumatic event as exposure to actual or threatened death, serious injury, or sexual violence by victimization, witnessing, learning that the event occurred to a loved one, or repeated exposure to details of the traumatic event (American Psychiatric Association, 2013). However, it is not just the event itself that determines whether something is traumatic, but also the individual's experience of the event (Substance Abuse and Mental Health Services Administration, 2014). Fear, anger, sadness, and guilt and shame are some of the traumatic stress reactions that victims of trauma can experience (Glaser et al., 2006; Kilpatrick et al., 2003; Myers et al., 2015). Left untreated, trauma exposed individuals may engage in maladaptive behaviors as a way to cope with their traumatic experience. Although many black emerging adults who experience CVE will go on with their lives without incurring lasting negative outcomes, others may experience traumatic stress reactions that lead to their engagement in violence perpetration, substance use, or sexual risk-taking behaviors.

Black emerging adults have the highest rate for homicide offenders (189.8 per 100,000) compared to their white (40.4 per 100,000) counterparts (Coper & Smith, 2011), and national data show that black adults ages 18 and older account for 33% of arrest for aggravated assault (Federal Bureau of Investigation, 2015). Additionally, roughly 7.4% of black emerging adults report substance dependence or abuse compared to 8.4% for whites (Substance Abuse and Mental Health Services Administration, 2014), and black emerging adults are six to eight times more likely than whites to contract a sexually transmitted disease (CDC, 2015). Prior research has documented an association between CVE and adverse mental health outcomes among black emerging adults (Rosenthal, 2000; Rosenthal & Hutton, 2001; Rosenthal & Wilson, 2006), and although extant literature show a link between CVE and violence perpetration (Gorman-Smith et al., 2004; McMahon et al., 2012), substance use (Cooley-Strickland et al., 2009, Gorman-Smith et al., 2004), and sexual risk-taking behaviors (Voison et al., 2003, 2005) among black adolescents, less is known about this phenomenon for black emerging adults. Therefore, informed by the stress process paradigm (Pearlin et al., 1981), this article aims to address this gap in the literature by reviewing and synthesizing results from studies that have examined the relationship between CVE, violence perpetration, substance use, and sexual risk-taking behaviors among black

emerging adults. Also, implications for practice, policy, and future research in this area are proposed.

Background Literature

Stress Process

The stress process theoretical framework has contributed substantially to our understanding of the mechanisms that help explain the links between events and stress, and how these factors affect the well-being of people. The major domains used to describe the process of stress are (1) the social statuses of individuals (2) the source of stress (i.e., event and chronic strains) (3) the moderators of stress (i.e., social support, self-concepts, and coping behaviors), and (4) the manifestations of stress (i.e., mental, emotional, and behavioral outcomes; Pearlin et al., 1981). A central tenet of the stress process model is that stress exposure, such as CVE, is associated with social structure and social inequality (i.e., poverty and low SES). Specifically, poor black emerging adults living in low-income urban areas are at risk for CVE, and the effects of CVE may be attenuated or exacerbated by the presence of more proximal influences. The type of social support and coping behaviors may help or hinder an individual's capacity to effectively deal with stress and its outcomes (Pearlin, 1999). Therefore, in the absence of healthy social supports and coping behaviors, many lowincome black emerging adults may engage in violence perpetration, substance use and/or sexual risk-taking behaviors as a way to cope with CVE (Gorman-Smith et al., 2004; Jones, 2007; McMahon et al., 2012; Voison et al., 2003, 2005).

CVE

CVE is defined as exposure to intentional acts of interpersonal violence committed in public areas by individuals who are not intimately related to the victim (Scarpa, 2003; Wilson & Rosenthal, 2003). The type of violence related events one may experience can include being chased by gangs or individuals, threatened with serious physical harm, punched or hit by a non-family member, mugged, sexually assaulted, severely wounded by violence, stabbed, and/or shot (Richters & Saltzman, 1990). Also, CVE can happen as a result of direct exposure (i.e., victimization or witnessing the event in person) or indirect exposure (i.e., heard or heard about the event; Lee, 2012; Richters & Saltzman, 1990; Wilson & Rosenthal, 2003). Studies have presented evidence suggesting that CVE is among the strongest predictors of violent behaviors (Baskin & Sommers, 2014; Gorman-Smith et al., 2004; Lynch & Cicchetti, 1998).

Violence Perpetration

Research suggests that CVE can influence an individual's attitude and beliefs about violence (Huesmann & Guerra, 1997). This finding is consistent with the social learning theory which suggests that violent behavior can be learned through observation and imitation, and the more often it is reinforced, the more likely it is to occur (Bandura, 1973). Thus, CVE may normalize the use of violent/aggressive behavior (Guerra et al., 2003). Concomitant to the social learning theory, the general strain theory (GST) posits that when people experience stress, which is common after a traumatic experience, they often respond with a range of negative emotions that may lead individuals to violent crime and/or delinquency as a way to

cope and reduce the negative emotions caused by the strain (Agnew, 1992). Prior studies have presented evidence of an association between trauma and violence perpetration (Baskin & Sommers, 2014; Layne et al., 2014) which has been defined as participating in: (1) collective violence, which involves war or gangs; and/or (2) individual violence, which involves physical assault, sexual assault, attempted murder, and murder (Brady et al., 2008; DeGruy et al., 2012; Gorman-Smith et al., 2004). Thus, an investigation of CVE and its association with violence perpetration for black emerging adults is warranted.

Substance Use

Substance use disorder (SUD) is a cluster of cognitive, behavioral, and physiological symptoms indicating that an individual continues to use the substance despite significant substance-related problems (American Psychiatric Association, 2013). Although SUD is not the focus of this review, it is reasonable to consider CVE as an ongoing source of trauma that may facilitate the use of alcohol and/or illegal substances, which may lead to SUD. National data show that black emerging adults have a 7.4% rate of substance dependence or abuse (Substance Abuse and Mental Health Services Administration, 2014). Furthermore, prior studies have documented the relationship between CVE and substance use among black youth in urban settings (Cooley-Strickland et al., 2009, Gorman-Smith et al., 2004; Nebbitt et al., 2012; Wright et al., 2013), yet it is unclear exactly how many black emerging adults engage in substance use as a result of experiencing CVE.

Sexual Risk-Taking Behavior

Emerging adults aged 18–26 in the United States account for nearly 50% of all new sexually transmitted infections (STI) (CDC, 2013). This epidemic is most prominent among black emerging adults. According to the CDC (2013), black females are six times more likely to contract chlamydia than white college aged females, black males are eight times more likely to contract chlamydia than white college-aged men, and 69% of reported cases of gonorrhea were among black emerging adults. Certain behaviors place individuals at risk of contracting STIs which include; unprotected sex (e.g. condoms/barriers), unknown STI/HIV status, concurrent sexual partners, and alcohol and substance use (CDC, 2015). Research has shown an association between CVE and sexual risk behaviors among black youth (Voisin, 2003, 2005) and black detained youth (Voisin, 2007). However, less is known about the impact of CVE on sexual risk-taking behaviors of black emerging adults. The impact of CVE and associated stress reactions place black emerging adults at risk for engaging in maladaptive behaviors that can be deleterious to their health. Thus, a review of studies that have examined the relationship between CVE, violence perpetration, substance use, and sexual risk-taking behaviors among black emerging adults is warranted.

Methods

Search Strategies and Study Identification

Literature searches were conducted between March 2015 and April 2015 in EBSCO (Academic Search Complete; America: History & Life; Applied Science & Technology Full Text [H.Wial. Wilson]; CINAHL Plus; Communication Abstracts; Education Full Text [H.W. Wilson]; Family & Society Studies Worldwide; Gender Studies Database; Global Health;

Global Health Archive; History of Science, Technology & Medicine; MEDLINE; PsycINFO; Social Work Abstracts; SocINDEX), ProQuest (Applied Social Sciences Index and Abstracts Criminal Justice Database; Education Database; ERIC; Ethnic NewsWatch; Political Science Database; ProQuest Dissertations & Theses A&I; Social Science Database; Social Services Abstracts; Sociological Abstracts; Sociology Database), and Web of Science (Web of SCIENCE Core Collection; Inspec; KCI-Korean Journal Database; Russian Science Citation index; SciELO Citation Index).

Relevant articles were identified using search words formed according to the search guidelines and BOOLEAN combinations defined by the selected databases (see Table 1). The searches were completed by April 30, 2015. Titles and abstracts were screened, and articles were retrieved if they met the established inclusion criteria. Articles selected for this review included those that (1) included black emerging adults, (2) included a measure of CVE, (3) included a measure of violence perpetration, substance use, or sexual risk-taking behaviors, (4) were published between January 1990 and February 2017, and (5) conducted in the U.S.

A flow diagram for this review is presented in Figure 1. The Preferred Reporting Items for Systematic Reviews and Meta-analysis (PRISMA) statement developed by Moher et al. (2009) was used as a guideline to formulate the flow diagram. An initial electronic search identified 2,686 studies after exact duplicates were removed. The titles and abstracts of these articles were screened by three reviewers, resulting in 2,671 articles excluded due to data were collected outside the U.S.; articles were from newspaper or magazines, or the outcomes studied did not meet the inclusion criteria. The remaining 15 studies were retrieved for full-text review. Eight studies were excluded due to the samples not representing the population of interests, resulting in seven studies that were included in the final research synthesis. Description of the studies sample and outcome variables included in our analysis are summarized in Table 2.

Findings

The majority (n = 5) of studies included in this review used urban low-income community samples, whereas Phillips et al., (2013) study consisted of a sample of men from eight states (Oakland, CA, Bronx, NY, Houston, TX, Los Angeles, CA, Rochester, NY, Chapel Hill, NC, Detroit, MI, and Chicago, IL) and Voisin et al., (2015) used data from a nationally represented sample of emerging adults. Although Pearlin's et al., (1981) stress model suggest that CVE is associated with poverty and low social economic status (SES), none of the studies included in this review examined this association. Two of the studies measured the association between CVE and violence perpetration; three examined CVE and substance use, and two assessed CVE and sexual risk- taking behaviors. Most of the studies used a cross-sectional design. However, studies lacked consistency in the measures used to assess CVE (see Table 3). Instruments used to evaluate CVE were initially developed for children and adolescents, and the age composition of the samples varied across studies. Furthermore, except two studies, factors that may mediate or moderate the relationship between CVE and the three outcomes of interests were not assessed.

CVE, Violence Perpetration, Sexual Risk-taking behaviors, and Substance Use

Results from the seven studies reviewed in this article show that roughly 83% of the black emerging adults sampled experienced CVE, 32% reported engaging in violence perpetration, 6.5% substance use, and 33–67% sexual risk-taking behaviors that consisted of early sexual debut, high number of total lifetime sexual partners, and engaging in unprotected sex. However, examination of the association between CVE and violence perpetration and CVE and sexual risk-taking behaviors revealed mixed results. Tandon et al., (2012) study found a significant association between CVE and violence perpetration among a sample of urban, low-income black emerging adults (Mean age = 18.7), whereas this association was not found among participants in the study by Hankin et al., (2013). Equally, data from a nationally represented subsample of black emerging adults who participated in Wave III of the National Longitudinal Study of Adolescent Health revealed that CVE was significantly associated with early sexual debut (Adjusted Odds Ratio = 1.47, p < .01) and number of total lifetime sexual partners ($\beta = .07$, p < .001; Voisin et al., 2015). However, Phillips et al., (2013) study found that CVE was not significantly associated with black emerging adults engagement in unprotected oral or anal sex. The mixed findings on CVE and its association with violence perpetration and sexual risk-taking behaviors, and the dearth of literature investigating the relationship between CVE and these maladaptive outcomes among black emerging adults, suggest that more research is needed. In contrast to these findings, all three studies examining the relationship between CVE and substance use among black emerging adults found a significant association.

Among a sample of 1,803 black emerging adults aged 19-21 residing in Miami-Dade County, Turner and Lloyd (2003) found that CVE was significantly associated with substance dependence and the greater the lifetime accumulation of CVE resulted in an increased risk of substance dependence. Bivariate correlations from Fowler et al., (2008) study showed a significant positive association between CVE and substance abuse/ dependence (p <.01). While both studies above used a cross-sectional survey design, Brook et al., (2012) used a longitudinal approach to investigate how CVE influenced substance use among black emerging adults. Findings revealed that CVE was significantly associated with an increased risk of being drug dependent in bivariate (OR = 1.74, p < .01) and multivariate (OR = 1.35, p <.01) analysis. The novelty of this study was the longitudinal design which enabled the authors to predict from CVE measured across two developmental stages in emerging adulthood (Time II [Mean age = 19.2 years] and Time III [Mean age = 24.5 years]) to substance use in the later stage of emerging adulthood (Time IV [Mean age = 29 years]). These results suggest that black individuals in the later stage or emerging adulthood may use drugs as a form of self-medication to cope with their experiences of CVE in early to midemerging adulthood.

However, factors that may moderate the impact of CVE are important to assess and are one of the major domains used to describe Pearlin's (1981) stress process model. The type of social support and coping behaviors may help or hinder a black emerging adult's capacity to effectively deal with stress and its outcomes resulting from CVE (Pearlin, 1999). Potential moderators were examined by only two studies from this review and findings were mixed. Tandon et al., (2012) examined coping behaviors (i.e., active, avoidant, distraction, and

support-seeking) and social support (i.e., group of close friends, mother) and found that these protective factors were not able to buffer the relationship between CVE and engagement in violence perpetration for black emerging adults.

Fowler et al., (2008) examined the protective function of public and private religiosity. Private religiosity is defined as one's internal thoughts and beliefs about their religious identity, the importance of religion to self, and personal religious awareness, whereas public religiosity refers to church attendance and celebration of religious holidays (Bahr et al., 1998; Brega & Coleman, 1999). Findings revealed that black emerging adults exposed to higher rates of CVE reported increased substance abuse/dependence symptoms when less publicly religious. Although religiosity is not explicitly stated as a moderating factor in Pearlin's stress model, an individual's self-concepts may be impacted by their religious beliefs and they may receive positive social support from members of their religious group. Prior research show that black emerging adults are more likely to attend church services, engage in private prayer, and/or look to a higher power for support (Milevsky & Levitt, 2004; Pattillo-McCoy, 1998). Therefore, the sense of belonging or believing in something greater than oneself may serve as a buffer in the relationship between CVE and substance use for black emerging adults.

Discussion

Together, this collection of studies present compelling evidence concerning the association between CVE and substance use for black emerging adults in the U.S. The prevalence of CVE for black emerging adults varied across studies, which is similar to research findings on black youth (Cooley-Strickland et al., 2009; Gorman-Smith et al., 2004). Only one of the two studies examining CVE and its association with violence perpetration and sexual risktaking behaviors found a significant association. However, all three studies examining CVE and substance use found a significant association. Two of the studies from this review examined potential moderators that may buffer the effects of CVE. Results revealed that black emerging adults experiencing CVE may still engage in violence perpetration, despite having high levels of social support and engaged coping skills. This finding lends support to prior research suggesting that when the community is experiencing chronic CVE, social support factors become less effective due to the stress that is widely shared by the individuals of the support network (Rosario, Salzinger, Feldman, & Ng-Mak, 2008). Thus, a fractured social support network may contribute to one's engagement in violence perpetration as a way to cope with their experiences of CVE. In contrasts, religiosity was shown to buffer the effects of CVE on substance use for black emerging adults (Fowler et al., 2008). However, the cross-sectional survey design of this study limits the ability to determine casual and transactional pathways between religiosity, CVE, and substance abuse.

Limitations

The present review is limited to the relatively few studies available that examined CVE and its association with violence perpetration, substance use, and sexual risk-taking behaviors among black emerging adults. Most of the studies in this review (n = 5) used a cross-sectional design which limits our ability to establish temporal precedence to better understand the long-term impact of CVE and make causal inferences about CVE in relation

to violence perpetration, substance use, and sexual risk-taking behaviors. There were also inconsistencies in the measurement of CVE. Studies used a modified measure (Fowler et al., 2008; Turner & Lloyd, 2003), measure developed for children (Hankin et al., 2013), or designed a survey to measure CVE (Phillips et al., 2013) which limits our ability to synthesize findings. The use of self-report measures to assess CVE may have minimized findings due to biases that are inherent in self-report. Moreover, the association found between CVE, violence perpetration, and substance use does not rule out alternative explanations, such as the presence of potential confounding variables.

Prior research show that black emerging adults who experience high levels of CVE are more likely to experience other risk factors including childhood maltreatment (Afful et al., 2010; Felitti et al., 1998; Kimmerling et al., 2002), intimate partner violence (Breiding et al., 2014; Widom et al., 2014), and having an incarcerated, mentally ill, or substance-abusing family member (Bynum et al., 2010; Dube et al, 2003; Felitti et al., 1998). These key potential confounders could explain the association between CVE, violence perpetration, substance use, and sexual risk-taking behaviors. Therefore, an indirect pathway may exists between CVE and aforementioned outcomes that the particular set of studies in this review failed to address. Lastly, although this review targeted all studies focused on CVE and its association with violence perpetration, substance use, and sexual risk-taking behaviors among black emerging adults, it is possible that some studies were not identified and thus not included in this review. Despite the current limitations, results from this review offer implications for practice, policy, and future research.

Implications

One advantage of a systematic review is the ability to use summaries from multiple studies on the same topic to obtain a more precise assessment of the relationship between to variables (Shadish et al., 2002). Furthermore, combining results from several studies can lend more credence to the findings than a single study alone. In this review, CVE was found to be associated with substance use among black emerging adults. However, CVE and its associations with violence perpetration and sexual risk-taking behaviors were mixed. Most of the studies in this review were cross-sectional, used small sample sizes, and lacked generalizability and the ability to make inferences about causation. Additional research that confirms these findings in other samples is warranted and may help us better illuminate the mechanisms whereby CVE is associated with violence perpetration, substance use, and sexual risk-taking behaviors.

Future studies should employ more rigorous sampling techniques and research designs that enable researchers to examine both the long-term effects of CVE on violence perpetration, substance use, and sexual risk-taking behaviors and factors that moderate or mediate this relationship. The results from such studies may inform practitioners and policy makers of informal and formal resources that may serve as protective factors and help attenuate the impact of CVE on the well-being of black emerging adults. Additionally, the need for culturally sensitive treatment and prevention methods for black emerging adults experiencing CVE is particularly critical in urban low-income communities where resources are sparse (Cooley & Lambert 2006; Thomas et al., 2012). Due to high rates of utilization of

emergency departments by low-resourced black emerging adults suffering from non-fatal violent injuries related to CVE, the emergency room is an ideal site for initiating treatment and prevention programs for this population (Walls et al., 2002). Overall, given the limited amount of studies found and increasing rates of substance use (Adams et al., 2014; SAMHSA, 2014), violence perpetration (Haynie et al., 2013; Johnson et al., 2014) and sexual risk-taking behaviors (Voisin , 2003; Voisin, 2005) among black emerging adults, the relationship between CVE and these adverse outcomes merits a great deal more attention in research.

Conclusion

In summary, findings from this review provide some evidence for a relationship between CVE, violence perpetration, substance use, and sexual risk-taking behaviors among black emerging adults. Given the heterogeneity in measurement and methodology, results included in this review are scarcely comparable. Results revealed that coping behaviors and social support did not serve as protective factor on the relationship between CVE and engagement in violence perpetration for black emerging adults. Thus, a fractured social support network may contribute to one's engagement in violence perpetration as a way to cope with their experiences of CVE. In addition, these findings are consistent with the stress process theory, which assumes that the type of social support and coping behaviors may help or hinder an individual's capacity to effectively deal with stress and its outcomes (Pearlin, 1999). Moreover, the findings presented herein should not be taken to suggest that social support and coping behaviors are more important than other factors. There is a multitude of personal and environmental variables within black emerging adult's social ecology that should continue to be included in studies assessing CVE and its impact on the well-being of this population. For that reason, further research is warranted.

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References

Adams, S., Knopf, D., Park, J. Prevalence and Treatment Of Mental Health And Substance Use Problems In The Early Emerging Adult Years In The United States: Findings From The 2010 National Survey on Drug Use And Health. 2014. Retrieved from http://nahic.ucsf.edu/prevalence-and-treatment-of-mental-health-and-substance-use-problems-in-the-early-emerging-adult-years-in-the-united-states-findings-from-the-2010-national-survey-on-drug-use-and-health/

Afful S, Strickland J, Cottler L, Bierut L. Exposure to trauma: A comparison of cocaine-dependent cases and a community-matched sample. Drug & Alcohol Dependence. 2010; 112(1/2):46–53. [PubMed: 20599330]

Agnew R, White HR. An empirical test of general strain theory. Criminology. 1992; 30:475–499.

American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 5

American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 5. Washington, DC: Author; 2013.

Arnett JJ. Does Emerging Adulthood Theory Apply Across Social Classes? National Data on a Persistent Question. Emerging Adulthood. 2016; 4(4):227–235.

Bahr SJ, Maughan SL, Marcos AC, Li B. Family, religiosity, and the risk of adolescent drug use. Journal of Marriage & the Family. 1998; 60:979–992.

Bandura, A. Aggression: A Social Learning Analysis. Englewood Cliffs, NJ: Prentice-Hall; 1973.

Baskin D, Sommers I. Exposure to Community Violence and Trajectories of Violent Offending. Youth Violence and Juvenile Justice. 2014; 12(4):367–385.

- Brady S, Gorman-Smith D, Henry D, Tolan P. Adaptive coping reduces the impact of community violence exposure on violent behavior among African American and Latino male adolescents. Journal of Abnormal Child Psychology. 2008; 36(1):105–115. [PubMed: 17687640]
- Brega AG, Coleman LM. Effects of religiosity and racial socialization on subjective in African-American adolescents. Journal of Adolescence. 1999; 22:223–242. [PubMed: 10089121]
- Breiding, MJ., Chen, J., Black, MC. Intimate Partner Violence in the United States 2010. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention; 2014.
- Brook JS, Lee JY, Brown EN, Finch SJ, Brook DW. Individuality and Contextual In uences on Drug Dependence: A 15-Year Prospective Longitudinal Study of Adolescents from Harlem. The Journal of Genetic Psychology. 2012; 173(4):355–373. [PubMed: 23264990]
- Bynum L, Griffin T, Ridings DL, Wynkoop KS, Anda RF, Edwards VJ, ... Croft JB. Adverse childhood experiences reported by adults—five states, 2009. MMWR: Morbidity & Mortality Weekly Report. 2010; 59(49):1609–1613. [PubMed: 21160456]
- Centers for Disease Control and Prevention. Selected health risk behaviors and health outcomes by race/ethnicity—National YRBS: 2009. 2009. Retrieved from http://www.cdc.gov/HealthyYouth/yrbs/pdf/us_disparityrace_yrbs.pdf
- Centers for Disease Control and Prevention. National center for injury prevention and control, injury prevention & control: Data & statistics (WISQARS). 2017. Retrieved from http://www.cdc.gov/injury/wisqars/fatal_injury_reports.html
- Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance. 2011. Atlanta: U.S. Department of Health and Human Services; 2013.
- Centers for Disease Control and Prevention. Sexual Risk Behaviors: HIV, STD, & Teen Pregnancy Prevention. Atlanta: U.S. Department of Health and Human Services; 2015. Retrieved from http://www.cdc.gov/healthyyouth/sexualbehaviors/
- Cooley, M., Lambert, S. School-based interventions for children and adolescents exposed to chronic community violence. In: Lieberman, A.DeMartino, R., Fox, N., editors. Interventions for children exposed to violence. New Jersey: Johnson & Johnson Pediatric Institute; 2006.
- Cooley-Strickland M, Quille T, Griffin R, Stuart E, Bradshaw CP, Furr-Holden D. Community Violence and Youth: Affect, Behavior, Substance Use, and Academics. Clinical child and family psychology review. 2009; 12:127–156. [PubMed: 19472053]
- Cooper, A., Smith, EL. Homicide Trends in the United States, 1980–2008: Annual Rates for 2009 and 2010. 2011. Retrieved 2 February 2017 from https://www.bjs.gov/content/pub/pdf/htus8008.pdf
- DeGruy J, Kjellstrand JM, Briggs HE, Brennan EM. Racial respect and racial socialization as protective factors for African American male youth. Journal of Black Psychology. 2012; 38(4): 395–420. http://dx.doi.org/10.1177/0095798411429744.
- Dube S, Felitti V, Dong M, Chapman D, Giles W, Anda R. Childhood abuse, neglect, and household dysfunction and the risk of illicit drug use: The Adverse Childhood Experiences Study. Pediatrics. 2003; 111(3):564–572. [PubMed: 12612237]
- Federal Bureau of Investigation Uniform Crime Reports. Crime in the United States. 2015. Retrieved from https://www.fbi.gov/about-us/cjis/ucr/crime-in-the-u.s/2014/crime-in-the-u.s.-2014/tables/table-43
- Felitti VJ, Anda RF, Nordenberg D, Williamson DF, Spitz AM, Edwards V, Marks JS. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. American Journal of Preventive Medicine. 1998; 14:245–258. [PubMed: 9635069]
- Fowler PJ, Ahmed SR, Tampsett CJ, Jozefowicz-Simbeni DMH, Toro PA. Community Violence and Externalizing Problems: Moderating Effects of Race and Religiosity in Emerging Adulthood. Journal of Community Psychology. 2008; 36(7):835–850. [PubMed: 20016764]
- Glaser JP, Os JV, Portegijs PJM, Germeys IM. Childhood trauma and emotional reactivity to daily life stress in adult frequent attenders of general practitioners. Journal of Psychosomatic Research. 2006; 61:229–236. [PubMed: 16880026]

Gorman-Smith D, Henry DB, Tolan PH. Exposure to Community Violence and Violence Perpetration: The Protective Effects of Family Functioning. Journal of Clinical Child & Adolescent Psychology. 2004; 33(3):439–449. [PubMed: 15271602]

- Guerra NG, Huesmann LR, Spindler A. Community violence exposure, social cognition, and aggression among urban elementary school children. Child Development. 2003; 74:1561–1577. [PubMed: 14552414]
- Hankin A, Meagley B, Wei SC, Houry D. Prevalence of Exposure to Risk Factors for Violence among Young Adults Seen in an Inner-City Emergency Department. Western Journal of Emergency Medicine. 2013; 14(4):303–308. [PubMed: 23930142]
- Haynie DL, Farhat T, Brooks-Russell A, Wang J, Barbieri B, Iannotti RJ. Dating Violence Perpetration and Victimization among US Adolescents: Prevalence, Patterns, and Associations with Health Complaints and Substance Use. Journal of Adolescent Health. 2013; 53(2):194–201. [PubMed: 23664626]
- Huesmann LR, Guerra NG. Children's Normative Beliefs About Aggression and Aggressive Behavior. Journal of Personality and Social Psychology. 1997; 72(2):408–419. [PubMed: 9107008]
- Johnson KL, Desmarais SL, Van Dorn RA, Grimm KJ. A Typology of Community Violence Perpetration and Victimization Among Adults With Mental Illnesses. Journal of Interpersonal Violence. 2014; 30(3):522–540. [PubMed: 24919996]
- Jones JM. Exposure to Chronic Community Violence Resilience in African American Children. The Journal of Black Psychology. 2007; 33(2):125–149.
- Kilpatrick DG, Ruggiero RE, Acierno RE, Saunders BE, Resnick HS, Best CL. Violence and risk of PTSD, major depression, substance abuse/dependence, and comorbidity: Results from the National Survey of Adolescents. Journal of Consulting and Clinical Psychology. 2003; 71:697–703.
- Kimerling, R.Ouimette, P., Wolfe, J., editors. Gender and PTSD. New York: Guilford Press; 2002.
- Layne CM, Greeson JP, Ostrowski SA, Kim S, Reading S, Vivrette RL, Pynoos RS. Cumulative trauma exposure and high risk behavior in adolescence: Findings from the National Child Traumatic Stress Network Core Data Set. Psychological Trauma: Theory, Research, Practice, And Policy. 2014; 6(1):S40–S49.
- Lee R. Community Violence Exposure and Adolescent Substance Use: Does Monitoring and Positive Parenting Moderate Risk in Urban Communities? Journal of Community Psychology. 2012; 40:1520–6629.
- Lynch M, Cicchetti D. An ecological-transactional analysis of children and contexts: the longitudinal interplay among child maltreatment, community violence, and children's symptomatology. Development and Psychopathology. 1998; 10(2):235–57. [PubMed: 9635223]
- McMahon SD, Todd NR, Martinez A, Coker C, Sheu C, Washburn J, Shah S. Aggressive and prosocial behavior: Community violence, cognitive, and behavioral predictors among urban African American youth. American Journal Of Community Psychology. 2012; 51(3–4):407–421. DOI: 10.1007/s10464-012-9560-4
- Milevsky A, Levitt MJ. Intrinsic and extrinsic religiosity in preadolescence and adolescence: Effect on psychological adjustment. Mental Health, Religion, & Culture. 2004; 7:307–321.
- Moher D, Liberari A, Tetzlaff J, Altman D. the PRISMA Group. Preferred Reporting Items for Systematic Reviews and Meta-analysis: The PRISMA Statement. Annals of Internal Medicine. 2009; 151:264–269. [PubMed: 19622511]
- Myers SG, Wells A. Early trauma, negative affect, and anxious attachment: the role of metacognition. Anxiety, Stress &Coping. 2015; 28(6):634–649.
- Nebbitt VE, Lombe M, Yu M, Vaughn MG, Stokes C. Ecological correlates of substance use in African American adolescents living in public housing communities: Assessing the moderating effects of social cohesion. Children & Youth Services Review. 2012; 34(2):338–347. DOI: 10.1016/j.childyouth.2011.11.003
- Pattillo-McCoy M. Church culture as a strategy of action in the Black community. American Sociological Review. 1998; 63:767–784.
- Pearlin LI, Lieberman MA, Menaghan EG, Mullan JT. The stress process. Journal of Health and Social Behavior. 1981; 22:337–356. [PubMed: 7320473]

Pearlin, LI. The stress process revisited: Reflections on concepts and their interrelationships. In: Aneshensel, CS.Phelan, JC.Aneshensel, CS., Phelan, JC., editors. Handbook of sociology of mental health. Dordrecht, Netherlands: Kluwer Academic Publishers; 1999. p. 395-415.

- Phillips G, Hightow-Weidman LB, Fields SD, Giordano TP, Outlaw AY, Halpern-Felsher B, Wohl AR. Experiences of community and parental violence among HIV-positive young racial/ethnic minority men who have sex with men. AIDS Care. 2013; 26(7):827–834. DOI: 10.1080/09540121.2013.861571 [PubMed: 24274141]
- Richters, JE., Martinez, P. Things I have seen and heard: A structured interview for assessing young children's violence exposure. Rockville, MD: National Institute of Mental Health; 1990.
- Richters JE, Martinez P. The NIMH community violence project: I. Children as victims of and witnesses to violence. Psychiatry. 1993; 56:7–21. [PubMed: 8488215]
- Richters, JE., Saltzman, W. Survey of exposure to community violence: Self-report version. Rockville, MD: National Institute of Mental Health; 1990.
- Rosario M, Salzinger S, Feldman RS, Ng-Mak DS. Intervening Processes Between Youths' Exposure to Community Violence and Internalizing Symptoms Over Time: The Roles of Social Support and Coping. American Journal of Community Psychology. 2008; 41(1/2):43–62. [PubMed: 18165895]
- Rosenthal BS. Exposure to Community Violence in Adolescence: Trauma Symptoms. Adolescence. 2000; 35(138):271–284. [PubMed: 11019771]
- Rosenthal BS, Hutton EM. Exposure to Community Violence and Trauma Symptoms in Late Adolescence: Comparison of a College Sample and a NonCollege Community Sample. Psychological Reports. 2001; 88:367–374. [PubMed: 11351873]
- Rosenthal BS, Wilson WC. Adolescents' Psychological Response to the Experience of Community Interpersonal Violence: A Cross-National and a Cross-Cultural Comparison. Adolescence. 2006; 41(163)
- Scarpa A. Community violence exposure in young adults. Trauma Violence Abuse. 2003; 4:210–227. [PubMed: 14697123]
- Shadish, WR., Cook, TD., Campbell, DT. Experimental and quasi-experimental designs for generalized causal inference. Boston, MA: Houghton Mifflin; 2002.
- Substance Abuse and Mental Health Services Administration. Results from the 2013 National Survey on Drug Use and Health: Summary of National Findings. Rockville, MD: Substance Abuse and Mental Health Services Administration; 2014. NSDUH Series H-48, HHS Publication No. (SMA) 14-4863
- Substance Abuse and Mental Health Services Administration Trauma and Justice Strategic Initiative. SAMHSA's Concept of Trauma and Guidance for a Trauma-Informed Approach. 2014. Retrieved 19 June 2016 from http://store.samhsa.gov/shin/content/SMA14-4884/SMA14-4884.pdf
- Tandon DS, Dariotis JK, Tucker MG, Sonenstein FL. Coping, Stress, and Social Support Associations With Internalizing and Externalizing Behavior Among Urban Adolescents and Young Adults: Revelations From a Cluster Analysis. Journal of Adolescent Health. 2012; 52:627–633. [PubMed: 23298992]
- Thomas AJ, Carey D, Prewitt KR, Romero E, Richards M, Velsor-Friedrich B. African-American Youth and Exposure to Community Violence: Supporting Change from the Inside. Journal for Social Action in Counseling and Psychology. 2012; 4(1):54–68.
- Truman, JL., Langton, L. Criminal Victimization, 2013. 2014. Retrieved from http://www.bjs.gov/content/pub/pdf/cv13.pdf
- Turner RJ, Lloyd DA. Cumulative Adversity and Drug Dependence in Young Adults: Racial/Ethnic Contrasts. Addiction. 2003; 98:305–315. [PubMed: 12603230]
- UN Office on Drugs and Crime (UNODC). World Drug Report 2011. 2011. Retrieved from http://www.refworld.org/docid/4e809b422.html
- U.S. Census Bureau. Annual Estimates of the Resident Population by Single Year of Age and Sex for the United States: April 1, 2010 to July 1, 2015. 2016
- Voisin DR. Victims of Community Violence and HIV Sexual Risk Behaviors Among African American Adolescent Males. Journal of HIV/AIDS Prevention & Education for Adolescents & Children. 2003; 5(3/4):87–110.

Voisin DR. The relationship between violence exposure and HIV sexual risk behaviors: Does gender matter? American Journal of Orthopsychiatry. 2005; 75(4):497–506. http://doi.org/10.1037/0002-9432.75.4.497. [PubMed: 16262509]

- Voisin DR, Chen P, Fullilove R, Jacobson KC. 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. 2015; 41:295–306.
- Voisin DR, Crosby R, Yarber WL, Salazar LF, DiClemente RJ, Staples-Horne M. Witnessing Community Violence and Health-Risk Behaviors Among Detained Adolescents. American Journal of Orthopsychiatry. 2007; 77(4):506–513. [PubMed: 18194030]
- Walls CA, Rhodes KV, Kennedy JJ. The emergency department as usual source of medical care: estimates from the 1998 National Health Interview Survey. Academic Emergency Medicine. 2002; 9(11):1140–1145. [PubMed: 12414462]
- Widom CS, Czajaa S, Duttonb MA. Child abuse and neglect and intimate partner violence victimization and perpetration: A prospective investigation. Child Abuse & Neglect. 2014; 38(4): 650–663. [PubMed: 24325940]
- Wilson WC, Rosenthal BS. The relationship between exposure to community violence and psychological distress among adolescents: A meta-analysis. Violence and Victims. 2003; 18:335–352. [PubMed: 12968662]
- Wright EM, Fagan AA, Pinchevsky GM. The Effects of Exposure to Violence and Victimization across Life Domains on Adolescent Substance Use. Child Abuse & Neglect. 2013; 37(11):899–909. [PubMed: 23743232]

Screening

Motley et al. Page 14

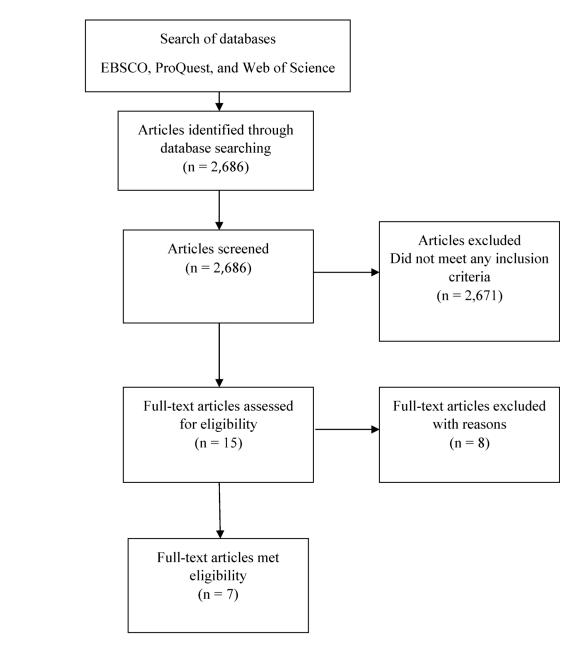


Figure 1. Flow Diagram of Systematic Review in Accordance with PRISMA Statement

Table 1

Key Words in Search Strategy

Category	Search Terms
Common Search Terms	
black	"African American*", OR black OR "African-American*",
Emerging Adult	"young adult" OR "young adults" OR "emerging adult" OR "emerging adults" OR "young men" OR "young women" OR "twenties" OR "late teen" OR "young adulthood" OR "emerging adulthood" OR "young-adult" OR "young-adulthood" OR "emerging-adulthood"
Community Violence	neighborhood *OR communit *OR "residency" OR "neck of the woods" OR "stomping ground" OR "hood" OR "urban" OR local *
Outcome of Interests	
Violence Perpetration	"violen *" OR "assault *" OR "abuse *" OR "trauma *" OR witness * OR victim * OR "survivor *"
Substance use	"substance *, OR "drug *, OR "abuse *, OR "use *, OR "misuse *,
	OR "addict *," OR "dependent *," OR "dependenc *," OR "disorder *,"
	OR "problem *," OR "illegal" OR "withdrawal" OR "overdose"
Sexual Risk-Taking Behavior	"sexual behavior ", 'OR "sexual risk" OR sexual "OR condom OR "sexual partner" OR "sexually transmitted ", 'OR "sex behavior ", 'OR "human sexuality" OR "sexual activit ", 'OR "sex activit ", 'OR "sex encounter ", 'OR "sexual encounter ", 'OR "sex partner ", 'OR "sexual partner ", 'OR "safe sex" 'OR "safe sexual" 'OR "unsafe sex" 'OR "unprotected sex" 'OR "unprotected sexual" 'OR "high risk sex" 'OR "high risk sexual" 'OR "high-risk

^{*} Note: The search terms of violence perpetration, sexual risk-taking behavior and substance use were searched separately with CVE, African American and Emerging adult.

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Table 2

Studies Description of sample and outcome variables.

Author	Study Setting	Female (%)	Male (%)	(%) Male (%) Age (Mean) black (%)	black (%)	Study Design	Outcomes Reported
Hankin et al. $(2013)^{I}$ Community (Urban)	Community (Urban)	57.2	43.7	21	85.7	Cross-sectional $(n = 365)$	■ Recent history of violence perpetration ■Perceived likelihood of future violence perpetration
Tandon et al. $(2012)^{I}$ Community (Urban)	Community (Urban)	49.9	49.9	19	95	Cross-sectional $(n = 633)$	■ Violence perpetration in past 12 months
Brook et al. (2012) ² Community (Urban)	Community (Urban)	59	41	29	55	Longitudinal (4 waves, $n = 838$)	 Marijuana and other illegal drug dependence in past five years
Fowler et al. (2008) ² Community (Urban)	Community (Urban)	09	40	20	52	Cross-sectional $(n = 341)$	■ Current alcohol and other substance abuse disorders
Turner et al. (2003) ² Community (Urban)	Community (Urban)	24	76	19–21	25	Cross-sectional $(n = 1,803)$	■ life-time and 1-year occurrence of substance disorders
Phillips et al. $(2014)^3$ Community (Urban)	Community (Urban)	NA	100	20.4	99	Cross-sectional ($n=363$)	■ Condom use or engaged in sex in exchange for drugs or money in the past three months
Voisin et al. $(2015)^3$	National Sample	48	52	22	27	Cross-sectional ($n=7,726$)	■ Early sexual debut ■Number of past-year sexual partners ■Total number of sexual Partners

*
Note:

Violence perpetration studies;

2 substance use studies;

 \mathcal{S} sexual risk-taking behaviors studies.

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Table 3

Instrument Characteristics of Community Violence Exposure (CVE) Used in the Selected Studies

Studies	Instrument for CVE	Items	σ	Types	Sample Items
Hankin et al. $(2013)^I$	Children's Exposure to Community Violence survey (Richters & Martinez, 1993)	12	.84	Witness/exposure	Have you heard guns being shot? Have you seen someone in your home get shot or stabbed?
Tandon et al. $(2012)^{I}$	Life Event and Neighborhood Stress Survey (D'Imperio & Ippolito, 2000)	29	.71	Witness/exposure	Have you witnessed someone being beaten, shot, or really hurt by someone in past 12 months ?
Brook et al. $(2012)^2$	Violence toward Subjects (Chavez, Oetting, & Swaim, 1994)	10	.90	Victim/exposure	How often has someone held a weapon (gun or knife) to you?
Fowler et al. $(2008)^2$	Things I have Seen and Heard (Richters & Martinez, 1990)	11	98.	Victim/Witness exposure	Have you seen someone stabbed? Have you been threatened with shooting?
Turner & Lloyd $(2003)^2$	Witnessed Violence adapted from Life History Calendar (Freedman et al., 1988)	10	NR	Witness/exposure	Have you seen someone else get shot at or attacked with another we apon?
Phillips et al. $(2014)^3$	Study designed questionnaire asking participants to select yes/no if they have observed various forms of violence in the past 3 months.	NR	NR	Witness/exposure	Have you ever seen someone assaulted?
Voisin et al. $(2015)^3$	NR	7	NR	Victim/Witness exposure	Have you seen someone stabbed another person? Have you had someone pull a gun on you?

 $[\]stackrel{*}{\ast}$ Note . The authors listed in the instrument were extracted from the selected studies.

NR = no report.

 $I_{
m violence}$ perpetration studies;

² substance use studies;

 $[\]mathcal{F}$ sexual risk-taking behaviors studies.