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IMPACT OF FAMILY AND COMMUNITY VIOLENCE ON YOUTH
PSYCHOPATHOLOGY**

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THE ROLE OF SOCIAL SKILLS IN PROTECTING AGAINST THE IMPACT OF
FAMILY AND COMMUNITY VIOLENCE ON YOUTH PSYCHOPATHOLOGY

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at

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by

Emily Christine Hockenberry

Date Submitted _____

Date Approved _____

Emily Hockenberry

Elissa J. Brown, Ph.D.

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ABSTRACT

THE ROLE OF SOCIAL SKILLS IN PROTECTING AGAINST THE IMPACT OF FAMILY AND COMMUNITY VIOLENCE ON YOUTH PSYCHOPATHOLOGY

Emily C. Hockenberry

Children and adolescents are exposed to family and community violence at high rates, and poly victimization is common. Further study is needed to assess the unique and additive effects of witnessing or directly experiencing violence in multiple contexts on psychopathology in urban youth of color. Additionally, analyzing the role of protective factors, such as social skills, in moderating the relation between violence exposure and psychopathology may aid in identifying unique and shared pathways by which different forms of interpersonal violence may impact mental health outcomes. This study sought to examine whether social skills (cooperation and assertion) moderated the relation between exposure to family and community violence and internalizing and externalizing symptoms in a sample of 116 youth (ages 5-17) and their caregivers. A community sample was recruited for a study evaluating the effectiveness of a trauma-specific cognitive behavioral therapy for family violence for Black and Latino families. Participants completed self-report and parent-report questionnaires assessing demographic information, history of violence exposure, social skills, and internalizing and externalizing symptoms. Hierarchical multiple regression analyses revealed that social skills moderated the effects of violence exposure on psychopathology such that youth with a history of exposure to community violence and high assertion were more likely to endorse higher levels of externalizing symptoms compared with community violence-exposed youth with moderate or low assertion scores or youth with no history of

community violence. Additionally, a significant positive association between family violence exposure and internalizing symptoms was found. The implications of the unique and additive effects of family and community exposure on psychopathology in youth, as well as the role of social skills as a protective factor, are discussed.

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Introduction

Children and adolescents are exposed to violence in the family and community context at high rates (Finkelhor, Turner, Shattuck, & Hamby, 2015). Among those exposed to violence, many will experience or witness multiple types of violence (McLaughlin & Sheridan, 2016; Turner, Shattuck, Finkelhor, & Hamby, 2016). Youth who have been exposed to violence in one context (such as within the home or neighborhood) are at greater risk for exposure to violence in a separate context (Finkelhor et al., 2007). Exposure to multiple forms of violence in multiple settings is associated with poorer mental health outcomes compared with exposure in a single setting (Haahr-Pederson et al., 2021; Turner et al., 2016). The current study seeks to expand upon findings asserting the prevalence of polyvictimization, the association between violence exposure and psychopathology, and the cumulative effects of greater exposure on increasing risk for psychopathology onset (McLaughlin, 2016). Specifically, this study aims to examine the mechanisms (both unique and shared) linking specific forms of violence exposure and psychopathology.

Researchers focused on identifying the specific mechanisms linking different types of adversity and development of psychopathology have made several recommendations for future research that the current study attempts to address. First, given existing knowledge of the prevalence and effects of polyvictimization, researchers have argued that examining the correlates and effects of single forms of violence exposure in isolation may significantly limit the ability to adequately conceptualize the complex and interconnected relations between predictors, characteristics, and outcomes

of youth exposure to violence (McLaughlin & Sheridan, 2016). Further, Cicchetti and Lynch's (1998) ecological transactional model of psychopathology suggests that risk and protective factors should be assessed within the concentric and interactive domains of the individual, family, community, and socio-cultural context. The current study thus examines youth exposure to family violence and community violence as predictors of psychopathology to more accurately account for polyvictimization across multiple ecological contexts.

Second, the current study draws from the dimensional model of adversity and psychopathology (DMAP), which was developed by Sheridan and McLaughlin (2014) as an alternative to the prevailing cumulative risk model most often applied in studies examining the sequelae of childhood adversity (Bryant Miller et al., 2018). The developers of DMAP argue that, though useful for demonstrating dose-response effects, the cumulative risk model obscures the possibility of identifying distinct pathways between different types of adversity by combining a range of experiences and contexts into one factor (McLaughlin & Sheridan, 2016; Sheridan & McLaughlin 2014). DMAP proposes two dimensions along which to measure adversity: *threat* (experiences of harm or threats of harm, such as physical abuse) and *deprivation* (absence of expected inputs from the environment, such as neglect). The current study specifically examines exposure to violence, which falls under the *threat* dimension, rather than an overall assessment of child maltreatment, which combines abuse (*threat*) and neglect (*deprivation*) and thus muddies the ability to interpret dimension-specific pathways from adversity to mental health outcomes (Bryant Miller et al., 2018).

Third, and finally, the current study references Nolen-Hoeksema and Watkins' (2011) transdiagnostic model of childhood adversity and youth psychopathology, which proposes a structure of distal, or environmental, risk factor predictors and proximal, or within-person, risk factor mediators and moderators. Social skills - abilities and behaviors that promote positive social functioning - are one such within-person factor with well-established associations with positive mental health outcomes for children and adolescents (Segrin et al., 2016). The family and community context provide key opportunities for development of social skills across childhood and also determine the social mores by which behavior is deemed appropriate (Alink, Cicchetti, Kim, & Rogosch, 2011; Fowler et al., 2009). Further, exposure to interpersonal violence has been associated with disruption in social skill development (Lum, Powell, & Snow, 2018), greater difficulties with emotional and social regulation (Margolin, 2005), and challenges with forming and maintaining supportive relationships (Oshri et al., 2017). Thus the current study examines social skills as a mechanism of interest in identifying unique and shared pathways between exposure to family and community violence and youth psychopathology.

Effects of Exposure to Violence on Internalizing and Externalizing Symptoms

The current study attempts to build on literature examining whether and how youth exposure to family violence, community violence, or both affects risk trajectories for internalizing and externalizing symptoms. Following the DMAP model of threat-specific maltreatment, in the current study family violence was operationalized to include lifetime history witnessing domestic violence (including physical abuse of another child) and/or experiencing child physical abuse (Briggs-Gowan et al., 2019; Lombera, Lee,

Sharma-Patel, & Brown, 2021). Community violence was operationalized as witnessing or directly experiencing physical harm or threats of harm perpetrated outside of the home (Gorman-Smith, Henry, & Tolan, 2004; Krug, Mercy, Dahlberg, & Zwi, 2002). As with exposure to violence across contexts, exposure to multiple forms of violence within contexts is also common, such as witnessing domestic violence and experiencing child physical abuse (family context), or both witnessing and being victimized by community violence (Margolin & Gordis, 2000; Tajima, 2004). Due to the constraints of the current study, the literature review will focus on the impact of family violence and community violence as single constructs, though important literature has examined severity and chronicity of exposure as meaningful predictors of outcomes (see Briggs-Gowan et al., 2019 and Lombera et al., 2021). Examined individually, exposure to family violence (Chan & Yeung, 2009; Maneta, White, & Mezzacappa, 2017; Moylan et al., 2010; Sternberg, 2006) and community violence (Ma, Grogan-Kaylor, & Delva, 2016; Mohammad et al., 2015) increased risk for internalizing and externalizing psychopathology are well established in the literature. Exposure to violence in the family and community has also been associated, both directly and indirectly, with broader functional interference in school and social domains, as well as poorer physical and cognitive health outcomes (Camarenesi, Piotrowsk, & Brownridge, 2020; Fowler et al., 2009; Moylan et al., 2010).

Though both family and community violence have been tied to greater internalizing and externalizing symptoms in the extant literature, current research has demonstrated generally stronger and more consistent effects for the effects of community violence on externalizing symptoms than internalizing (Fowler et al., 2009; Lambert et

al., 2021; Taylor et al., 2018). Family violence and community violence exposure likely share overlapping pathways to increased risk for psychopathology, including through impacts on emotion regulation, stress response, and executive functioning (McLaughlin, 2016). However, the setting of community violence - namely that it occurs within the broader neighborhood social context - may play a particularly salient role in shaping behavioral expectations and norms. Several theoretical explanations attempt to explain this pathway, suggesting that community violence exposure links to psychopathology through the normalization of aggression (social cognition theories; Fowler et al., 2009), emotional and physiological desensitization to violence (Fowler et al., 2009; Gaylord-Harden et al., 2011; Ng-Mak et al., 2004), and the “tough facade hypothesis,” which posits that youth may feel a strong need to appear invulnerable and do not manifest internalizing symptoms in order to maintain safety in chronically violent environments (Mrug, Loosier, & Windle, 2008). Further, Cicchetti and Lynch’s transactional model (1998) posits a bidirectional pathway, wherein youth exhibiting externalizing behaviors are at increased risk for community violence exposure.

Unique and Combined Effects of Exposure to Family and Community Violence

The smaller body of literature examining the unique and combined effects of community and family violence largely echoes the literature separately examining community and family violence in that violence exposure is generally associated with poorer outcomes, though the strength of association and type of outcome (internalizing or externalizing symptoms) appears more mixed. For example, some studies comparing the impact of multiple forms of violence exposure have found that community violence and family violence each predict unique outcomes in youth (Ho & Cheung, 2010;

Mohammad, Shapiro, Wainwright, & Carter, 2015), whereas others have found that exposure to community violence contributes to certain outcomes (externalizing behaviors) above and beyond the effects of family violence (Nothling et al., 2016). Other studies have found that community violence exposure provides an additive effect wherein the combination of family violence and community violence exposure is associated with poorer outcomes than either form alone (Martin, Sigda, & Kupersmidt, 1999; Mohammad et al., 2015). In keeping with these findings, several studies have found that, in samples of youth with both family and community violence exposure, community violence exposure (considered more distal) was only significantly associated with an increased risk for psychopathology or behavior problems among youth with no or low levels of exposure to family violence or child maltreatment (considered more proximal) (Muller, Goebel-Fabbri, Diamond, & Dinklage, 1999; Stevens & Mennen, 2018).

The lack of consistent findings in the literature results in part from considerable variation in study design and measurement practices. Studies comparing exposure to family violence and community violence frequently measure one form of violence exposure within the past year (more often community violence) and the other form of violence across the lifetime, which makes it difficult to comprehensively account for exposure to multiple forms of violence exposure across settings (which is common) throughout development (Cecil et al., 2014; Eisman et al., 2015; Fowler et al., 2009; Ma, Grogan-Kaylor, & Delva, 2016; Mohammad et al., 2015; Stevens & Mennen, 2018). Further, studies were often limited by shared method variance or by interference from reporter type; specifically, studies that gathered exposure to IPV and community violence exposure information from caregiver report only may have respectively overestimated or

underestimated children's actual experiences (Ma, Grogan-Kaylor, & Delva, 2016; Mohammad et al., 2015). Studies varied in their definition of community violence, with some including knowledge of violent crime in the community and exposure to drug-dealing or arrests in their definitions, and others limiting it to directly witnessing or being victimized by violence in the community. Additionally, some studies averaged violence exposure across indicators of severity, frequency, and proximity (e.g., averaging witnessing and direct victimization, or averaging exposure to verbal arguments with exposure to physical violence between family members) which may obscure the extent of the characteristics of violence exposure that have been shown to impact outcomes (Cecil et al., 2014; Eisman et al., 2015; Stevens & Mennen, 2018).

To address these limitations, the current study collected lifetime exposure to violence information from both youth and their caregivers by defining exposure to family and community violence as directly witnessing or being victimized by physical harm or imminent threats of harm. Further, we followed recommendations by researchers to examine moderators on the effects of violence exposure on psychopathology as a means to better elucidate the pathways between exposure and outcomes (Chan & Yeung, 2009; McLaughlin, 2016). Specifically, we sought to identify moderators involved in the same socio-cultural contexts as the violence itself that interact with both predictors of risk and outcomes (McLaughlin & Sheridan, 2016). Violence is an interpersonal act that occurs in the context of specific relationships - whether caregiving, familiar, neighbor, or stranger. Thus, in the present study, we investigated social skills as a protective factor (or potential moderator) in the relation between exposure to family and community violence and internalizing and externalizing symptoms.

Social Skills as a Moderator of Violence Exposure on Psychopathology

Social Skills consist of the cognitive, emotional, and behavioral capabilities necessary to promote culturally-appropriate interpersonal interactions across a range of social contexts (Beauchamp & Anderson, 2010). Building effective social skills represents a key developmental task for children and promotes their ability to form and maintain supportive relationships and effectively navigate social interactions over their lifespan (Oshri, Topple, & Carson, 2017). The current study examined two characteristics within the broader set of social skills: cooperation and assertion. Cooperation refers to behaviors like following directions and participating appropriately in dyadic or group activities (Gresham et al., 2010). Assertion refers to behaviors like asking for help and expressing feelings when wronged (Gresham et al., 2010). A small number of studies have examined social skills in relation to exposure to community and/or family violence and psychopathology, though none to date have specifically examined social skills as a protective factor for children exposed to interpersonal violence. The relevant literature reviewed here includes work examining the effects of violence exposure on social skills development as well as the association between social skills and internalizing and externalizing symptoms.

Impact of Violence Exposure on Social Skill Development

Due to the lack of research specifically examining the effects of violence exposure on social skills, we reviewed adjacent studies that examined the effects of child maltreatment on social skill development. In this body of literature, researchers found that abused and neglected children consistently demonstrated greater difficulty with prosocial behaviors, such as cooperative play, appropriate initiation, and effective

emotion regulation (Darwish et al., 2001; Holosko, 2015; Lum et al., 2018; Oshri, Toppo, & Carlson, 2017). Children who grew up in caregiving environments involving maltreatment often faced disruptions in their earliest opportunities for developing social skills from parents through positive modeling and co-regulation (Tronick & Beeghly, 2011). Attachment relationships serve as foundational models for appropriate social interaction and self-regulation, both of which in turn predict development of social skills and later ability to effectively develop positive peer relationships (Oshri, Toppo, & Carlson, 2017). Building on these findings, as well as literature demonstrating the differential effects of abuse and neglect on self-regulation and psychopathology, the current study aims to examine the associations between violence exposure and social skills without the potential confounding effect of neglect (Milojevich, Norwalk, & Sheridan, 2019).

Among studies reviewed, two directly investigated the effects of violence exposure on social skills. Holmes, Voith, and Gromoske (2015) examined the concurrent and longitudinal impact of young children's exposure to intimate partner violence (IPV) on aggressive behaviors and prosocial skills and found that exposure to IPV was associated with prosocial skills deficits with girls but not in boys. This study only examined exposure to IPV and did not account for additional forms of violence exposure in their sample, all of whom had previous involvement with Child Protective Services (Holmes, Voith, & Gromoske, 2015). In a separate sample of African-American mothers with preschoolers in Head Start Programs, the relationship between community violence exposure and behavior problems in children was partially mediated by social skills, wherein higher rates of community violence exposure were associated with lower levels

of social skills and lower levels of social skills were associated with higher levels of behavior problems (Oravecz, Osteen, Sharpe, & Randolph, 2011). Given that community violence exposure increases with age and that community violence was measured by maternal report alone for the past year, these findings suggest further research is warranted concerning the connection between community violence exposure and social skills in a sample of older children and teens that includes community violence data collected from multiple reporters and at multiple ecological levels (Oravecz, Osteen, Sharpe, & Randolph, 2011).

Impact of Social Skills on Psychopathology

In considering social skills as a moderator in the relation between violence exposure and psychopathology, we also reviewed literature examining the role of social skills as a protective factor against internalizing and externalizing symptoms or a predictor of resilience following adversity. Howell (2011) stated that researchers investigating protective factors should identify mechanisms that threaten normative development and then consider characteristics that prevent that threat from actually harming developmental outcomes. In this case, given their noted role in the developmental process and positive associations with mental well-being, social skills appear to be an appropriate construct to consider. Definitions for resilience and protective factors have been the subject of frequent debate in psychopathology research. Several authors have argued persuasively that resilience is a dynamic process, rather than a fixed trait, and should be examined over time (Oshri et al., 2017; Yoon et al., 2019). However, the cross-sectional nature of current study precludes this analytic possibility, and thus we

will define protective factors as “effects that modify or improve an individual’s response to an adverse experience” (Rutter, 1985).

Indeed, there is evidence to support the conceptualization of social skills as a protective factor wherein greater social skills are associated with lower internalizing and externalizing symptoms and vice-versa (Cook et al., 2008). A meta-analysis assessing the relation between prosocial behaviors and internalizing and externalizing symptoms across childhood and adolescence found that externalizing symptoms and internalizing symptoms were both negatively associated with prosocial behaviors, though the effect was much stronger for externalizing symptoms (Memmott-Elison, Holmgren, Padilla-Walker, & Hawkins, 2019). The authors posited that the skills required to behave in a cooperative, prosocial manner involves significant self-regulation capabilities, whereas externalizing behaviors are conceptualized as arising from a deficit in the ability to regulate one’s emotions and associated reactions effectively (Memmott-Elison et al., 2019). Despite a more limited body of literature examining the associations between social skills and internalizing symptoms, researchers have demonstrated links between internalizing symptoms, conceptualized as over-regulation or inhibition, and poorer social communication and efficacy (Salavera, Usan, & Teruel, 2019).

Several studies have established support for social skills as a factor associated with more positive outcomes following adversity (Lum, Powell, & Snow, 2018; Oshri et al., 2017; Racine et al., 2020). Oshri and colleagues (2017) reported that youth who are able to develop and retain greater social skills may be diverted from maladaptive trajectories associated with childhood maltreatment. They found that youth with greater social skills were more likely to engage in and access additional protective behaviors,

such as forming supportive peer relationships, and evidenced lower internalizing and externalizing symptoms (Oshri et al., 2017). The extant literature, however, is limited by its failure to distinguish childhood adversities involving threat from those involving deprivation. Among the studies reviewed, all evaluated childhood maltreatment predictor variables that collapsed child abuse and neglect, as well as other adverse experiences such as poverty. Evaluating threat and deprivation constructs as a single predictor may obscure the differential role of social skills as a protective factor against psychopathology depending on the form and context of exposure to adversity. The current study seeks to address this potential limitation by examining exposure to violence in the family and community context (both conceptualized as *threat*) as unique and combined predictors of social skills and psychopathology.

The current study

The specific aims and corresponding hypotheses of this thesis are as follows:

1. To examine the relative impacts of history of family violence exposure, community violence exposure, and social skills (cooperation and assertion) on youth internalizing and externalizing symptoms.
 - a. It is hypothesized that history of exposure to family violence exposure will be associated with greater internalizing and externalizing symptoms
 - b. It is hypothesized that history of community violence exposure will be associated with greater externalizing symptoms
 - c. It is hypothesized that lower levels of social skills (lower cooperation and lower assertion) will be associated with greater internalizing and externalizing symptoms

2. To examine whether social skills moderate the relationship between exposure to violence and internalizing and externalizing symptoms.
 - a. It is hypothesized that greater social skills will protect against psychopathology in youth exposure to violence, such that youth with a history of family and/or community violence exposure and lower social skills will report greater internalizing and externalizing symptoms than youth with family and/or community violence exposure and higher social skills.

Method

Participants

Participants were drawn from a randomized controlled trial evaluating the effectiveness of a trauma-specific cognitive behavioral therapy for family violence, delivered to 134 caregiver-child dyads in community settings. Eligible youth were ages 5-17, reported exposure to physical abuse, excessive corporal punishment, physical assault, witnessing domestic violence, sexual abuse, and/or sexual assault, and were identified by their caregivers as African American, Caribbean American, and/or Latino. Families with children with emotional and cognitive needs requiring more intensive treatment, such as severe mental illness, substance abuse disorder, or pervasive cognitive or developmental delays, were excluded and referred to an appropriate program. Of the 210 families referred to the treatment study, 179 completed phone screens to determine eligibility, and 134 completed the pre-treatment assessment at baseline. Among those who completed baseline assessments, a total of 18 were removed from the current analyses due to missing or incomplete reports on the *Behavior Problems Index* (Zill & Peterson, 1986) or *Social Skills Improvement System Rating Scales* (Gresham & Elliott, 2008).

Data for the current study were collected from 116 youth and their caregivers who completed baseline measures. Demographic information is presented in Table 1 and descriptive statistics for violence exposure, social skills, and psychopathology symptoms for the full sample are presented in Table 2. The final sample included 64 males (55%) and reported an average age of 10.96 ($SD = 3.52$). Youth were identified as primarily Hispanic/Latino and “Other” race (71%, with “other” most often specified as

Hispanic/Latino or with a specific Latin American nationality), followed by non-Hispanic/Latino and Black (15%), and Hispanic/Latino and White (5%) (see Table 1 for full race and ethnicity demographics). Caregiver and child reports on exposure to violence showed that 92 youth (79%) had been exposed to family violence, 42 (36%) had been exposed to community violence, and 31 (27%) reported exposure to sexual violence (SV). Exactly half of the participants reported exposure to more than one form of violence, with 49 (42%) reporting exposure to two types of violence, and 9 (8%) reporting exposure to all three types of violence assessed (family violence, community violence, and SV).

Measures

Demographic Information. Caregivers provided demographic information on themselves, their families, and their participating children. Child age, race, ethnicity, and gender were included in the present study.

Exposure to Violence. The Schedule for Affective Disorders and Schizophrenia Present and Lifetime Version, Kiddie Version, Trauma Screener (K-SADS-PL; Kaufman et al., 1997) assesses children's exposure to thirteen traumatic experiences including accidents, natural disasters, and interpersonal violence. Youth completed the screener on themselves, and caregivers completed the trauma screener on the child. Respondents are directed to answer *yes* or *no* regarding exposure to each event throughout the course of the child's lifetime. The KSADS-PL demonstrates high inter-rater reliability and internal consistency (Kaufman et al., 1997). For the present study, caregiver and child report were combined into one item (yes/no) with caregiver or child endorsement for a given item coded as *yes*. Caregiver or child endorsement of witnessing and/or direct victimization of

a violent crime was coded as exposure to community violence. Caregiver or child endorsement of witnessing domestic violence and/or physical abuse was coded as exposure to family violence, and caregiver or child endorsement of sexual abuse was coded as exposure to sexual violence.

Social Skills. The Social Skills Improvement System Rating Scales (SSIS-RS; Gresham & Elliott, 2008) assesses perceived prosocial behavior and social skills in children ages 3-18. The SSIS-RS was developed as a revised and re-normed update to the Social Skills Rating System (SSRS; Gresham & Elliott, 1990). In the current study, caregivers completed the Cooperation and Assertion subscales of the Parent Form (Elementary version) on their children ages 5-12, and adolescents ages 13 and over completed the Student Form on themselves. The Cooperation subscale consists of six items on the Parent Form and seven items on the Student Form assessing the ability and willingness to work with others for a common purpose. The Assertion subscale consists of seven items (on both Parent and Student form) assessing the ability to ask for help, stand up for oneself, and express feelings, needs, and concerns with others. Each subscale asked the rater to report on the frequency with which youth demonstrated a given skill on a 4-point scale with *never*, *seldom*, *often*, or *almost always* as choices on the Parent Form and *not true*, *a little true*, *a lot true*, and *very true* as choices on the Student Form with higher scores indicating stronger social skills. Item scores were summed to create single total scores for Cooperation and Assertion for each rater. To create one Cooperation and one Assertion variable for the entire sample, mean item scores were generated and combined across raters. For the current sample, Cronbach's α was .76 for Cooperation and .81 for Assertion. The SSIS-RS demonstrates strong internal consistency, test-retest

reliability, inter-rater reliability, and convergent validity indices (Gresham et al., 2010; Gresham, Elliott, Vance, & Cook, 2011).

Internalizing and Externalizing Symptoms. The Behavior Problems Index (BPI; Zill & Peterson, 1986) was designed to measure caregivers' report of the frequency, type, and scope of behavior problems in children ages 4-17. A brief measure derived from the Child Behavior Checklist (Achenbach & Edelbrock, 1981), the BPI asks caregivers to rate their child's behavioral and emotional symptoms using a 3-point Likert scale (0 = *not true*, 1 = *sometimes true*, 2 = *often true*). In the current sample, the 10-item Internalizing scale had a Cronbach's α of .79 and the 17-item Externalizing scale had a Cronbach's α of .90, with three items contributing to both scores. The overall index demonstrated acceptable reliability ($\alpha = .91$) and fair validity as measured by correlations between the total index score and seeking psychological treatment (Zill, 1990).

Procedure

The study protocol was approved and reviewed annually by the university's Institutional Review Board. Data were collected through Project CONNECT (Community Networks Negotiating Evaluations and Counseling for Trauma), a study designed to evaluate Alternatives for Families: A Cognitive Behavioral Therapy (AF-CBT) with Latino, African-American, and Afro-Caribbean youth exposed to interpersonal violence. Families were referred to the study by child advocacy clinics, child welfare agencies, other community agencies, and self-referrals. Recruitment efforts targeted youth and caregivers from racial and ethnic groups that are traditionally underserved in evidence-based mental health services by conducting targeted outreach

with leaders, educators, and clergy in predominantly Latino, African-American, and Afro-Caribbean communities.

Families determined to be eligible by phone screen were scheduled to complete consent, assent, and baseline assessment procedures at neighborhood-based sites (libraries, churches, community centers) in private rooms. Legal guardians provided consent for youth, youth ages seven and older provided assent, and caregivers (i.e., biological, foster) provided consent for themselves to participate in assessments and treatment. Assessments consisted of face-to-face interviews using questionnaire batteries evaluating trauma history and exposure to violence (K-SADS-PL), emotional and behavioral symptoms (BPI), and social functioning (SSIS-RS). Assessments were conducted in English and Spanish by bilingual, bicultural clinicians under the supervision of Dr. Elissa Brown. Assessment clinicians were trained by licensed clinical staff and observed via audio recording for initial assessments to ensure fidelity. Participants were compensated for completing pre-, post-, and follow-up research assessments, with caregivers receiving \$20 and children receiving a \$10 gift card each time.

Data Analyses

All statistical analyses were conducted using IBM SPSS Statistics for Mac, Version 26.0 (2020).

Preliminary Analyses. Prior to running analyses, all scales were examined for accuracy of data entry, missing values, and normality. A Missing Values Analysis was run with variables for child gender, violence exposure (family, community, sexual), social skills, and psychopathology. Little's test of Missing Completely at Random

(MCAR) was not significant, $\chi^2 (92) = 4.004, p = .135$, indicating that the current data were missing at random.

Univariate outliers were analyzed and determined to be absent by assessing z-scores for all model variables using the $z < 3.29$ guideline (Tabachnik & Fidell, 2013). No multivariate outliers were identified using the standard of a probability estimate of $p < .001$ or less for χ^2 value in Mahalanobis distance (Tabachnik & Fidel, 2013). Normality of predictor variables was assessed by examination of histograms and descriptive statistics (mean, standard deviation, skewness, and kurtosis). All variables were determined to adhere to assumptions of normality required for hierarchical regression analyses. Correlation coefficients for potential covariates, identified based on demonstrated associations with child internalizing and externalizing symptoms in the extant literature, were evaluated for inclusion in the current model. Exposure to SV was included as a covariate in the current study. To aid with interpretation, continuous predictor variables (social skills) were mean-centered and dichotomous predictor variables (violence exposure) were dummy coded with those with no violence exposure as the reference group. Collinearity statistics revealed no evidence of multicollinearity, with condition index values below 30 for all dimensions and variance inflation factor values between 1 and 2 for all predictors (Tabachnik & Fidel, 2013). Chi-squared tests of association were run for dichotomous with dichotomous predictors, point-biserial correlations were run for dichotomous with continuous predictors, and bivariate zero-order correlations were run for continuous with continuous predictor variables. Predictors were shown to have small to moderate correlations, none of which indicated

multicollinearity at the standard of $r \geq .90$ (Tabachnik & Fidel, 2013). Pearson's r values are presented for all correlations in Table 3.

Outcome Analyses. Hierarchical multiple regression analyses were conducted to assess the relative unique variance accounted for by exposure to family violence, exposure to community violence, and social skills on criterion variables of internalizing and externalizing symptoms, as well as the effects of the interaction between violence and social skills on the same outcomes. Four hierarchical regressions were run, each with SV exposure entered in step 1, exposure to family violence (yes/no) in step 2, exposure to community violence (yes/no) in step 3, and SSIS Cooperation and Assertion in step 4. Models 1 and 3 included BPI Internalizing symptoms as the criterion variable and Models 2 and 4 included BPI Externalizing as the criterion variable. Models 1 and 2 included interaction terms involving family violence and social skills (family violence by Cooperation, family violence by Assertion) in step 5, and Models 3 and 4 included interaction terms involving community violence and social skills (community violence by Cooperation and community violence by Assertion) in step 5. Results were interpreted by examining the significance of the full model for each of the four hierarchical regressions. The unique variance of each predictor was assessed by examining R^2 and significant differences in variance accounted for by predictors was assessed by examining ΔR^2 . Coefficients were examined and reported for the final significant model for all hierarchical regressions (see Table 4 and Table 5).

Results

Hierarchical multiple regression analyses were run to assess the unique variance in internalizing and externalizing symptoms accounted for by exposure to violence and social skills. Exposure to SV was entered in step 1, exposure to family violence was entered in step 2, exposure to community violence was entered in step 3, social skills (cooperation and assertion) was entered in step 4, and interaction terms of family violence and community violence with social skills were entered in the final step. Controlling for exposure to sexual violence, exposure to family violence, community violence and social skills significantly predicted youth internalizing symptoms, $R^2 = .205$, $F(5,110) = 5.663$, $p < .001$. The addition of social skills in step 4 led to significant increases in R^2 in the prediction of internalizing ($\Delta R^2 = .098$) above and beyond exposure to violence. Cooperation, but not assertion, contributed significant main effects on internalizing symptoms. Table 4 displays the unstandardized regression coefficients (B) with intercept, and standardized regression coefficients (β) for all variables entered in step 4. The addition of interaction terms (exposure to family violence x cooperation, exposure to family violence x assertion, exposure to community violence x cooperation, exposure to community violence x assertion) in the final step of the hierarchical regression analysis did not significantly predict additional variance in internalizing symptoms.

Controlling for exposure to SV, exposure to violence (family violence and community violence) and social skills (cooperation and assertion) significantly predicted youth externalizing symptoms, $R^2 = .356$, $F(5,110) = 12.183$, $p < .001$. The addition of social skills in step 4 led to significant increases in R^2 in the prediction of child

externalizing symptoms above and beyond exposure to violence ($\Delta R^2 = .310$) above and beyond community violence and the covariates. As with internalizing symptoms, cooperation, but not assertion, contributed significant main effects on externalizing symptoms. Youth who were rated higher on cooperation were more likely to receive lower internalizing and externalizing scores. The addition of interaction terms of exposure to family violence and exposure to community violence with social skills in the final step of the hierarchical regression analysis significantly predicted additional variance in externalizing symptoms above and beyond the other predictors in the model ($\Delta R^2 = .058$). Analyses of moderation coefficients (see Table 5 for unstandardized coefficients, intercept, and standardized coefficients) revealed that the interaction between exposure to community violence and cooperation did not significantly predict externalizing symptoms. The interaction between exposure to community violence and assertion did significantly predict externalizing symptoms (see Table 5). Moderation effects were graphed to visually demonstrate the moderation effect (see Figure 1). Analysis of the moderation effect shows that youth with a history of community violence exposure and high assertion scores were more likely to endorse higher levels of externalizing symptoms compared with community violence-exposed youth with moderate or lower assertion scores. Assertion scores were not differentially associated with externalizing symptoms for youth with no reported history of community violence.

Discussion

The first aim of the current study was to examine the unique effects of family violence exposure, community violence exposure, and social skills (cooperation and assertion) on internalizing and externalizing symptoms in youth. Secondly, the current study was designed to determine whether social skills moderated the association between exposure to violence and internalizing and externalizing symptoms in a sample of majority Black and Latino youth and their caregivers. These hypotheses were partially supported; family violence exposure was positively associated with internalizing symptoms, social skills were negatively associated with psychopathology, and assertion moderated the relation between community violence exposure and externalizing symptoms.

Our hypothesis that higher social skills would protect against psychopathology in youth exposure to violence was not supported. Contrary to our hypotheses, we found that assertion moderated the relation between violence exposure and externalizing symptoms for youth with a history of community violence specifically. That is, youth with *higher* levels of assertion *and* a history of exposure to community violence were also significantly higher in externalizing symptoms than their peers with average or low levels of assertion. We did not find significant interactions between social skills and violence type on internalizing symptoms, nor for cooperation by violence type on externalizing symptoms.

These findings diverge from the extant literature in which social skills have been identified as a protective factor against psychopathology and as a domain often impacted by violence exposure (Darwish et al., 2001; Holosko, 2015; Howell, 2011; Lum et al., 2018). However, these findings may still be explained by current theoretical

understandings on violence exposure and psychopathology within intersecting social contexts. Social cognition models argue that exposure to violence contributes to the normalization of aggression as a valid behavioral response to interpersonal conflict or other types of threat (Fowler et al., 2009). Models describing patterns of emotional and physiological desensitization to violence (Gaylord-Harden et al., 2011; Ng-Mak et al., 2004) and the “tough facade hypothesis” (Mrug, Loosier, & Windle, 2008) posit that youth growing up in persistently violent community settings often display lower internalizing symptoms (due to physiological numbing and affective and behavioral suppression of internalizing symptoms to maintain a “tough facade”). Researchers have also noted the bidirectional relationship between community violence exposure and externalizing symptoms, such that youth engaging in more externalizing behaviors are also more likely to be exposed to community violence (Stevens & Mennen, 2018).

Taken together, the extant literature may explain the current study’s moderation findings as indicative of the normalization and perceived adaptability of aggressive and externalizing behaviors in youths whose broader social contexts include persistent community violence. Thus, youth who are rated as high in assertion - a trait with positive connotations regarding extroverted, assertive behavior - may also be seen as adaptively aggressive. Rather than being contradictory, high assertion and high externalizing scores may represent two interpretations of similar behaviors or characteristics - interpretations which are more likely to be shaped in favor of aggressive behavior in the case of children and adolescents whose social environments included persistent exposure to violence.

Our hypothesis that there would be positive associations between violence exposure and psychopathology was partially supported. Exposure to family, but not

community violence, was positively associated with internalizing symptoms. This is consistent with extant literature with demonstrated consistent positive correlations between children's family violence exposure and internalizing symptoms (Chan & Yeung, 2009; Maneta et al., 2017). The finding that community violence exposure was not significantly associated with internalizing symptoms above and beyond the effects of exposure to family violence is consistent with previous studies that have found that, in youth with histories of family violence exposure, exposure to community violence does not predict additional risk for psychopathology (Mohammad et al., 2015; Muller et al., 1999; Stevens & Mennen, 2018). This explanation may be particularly relevant for the current sample, in which nearly every youth with reported community violence exposure also reported a history of family violence as well. These findings, and their base within the current literature, point to the importance of assessing and addressing multiple forms of violence exposure concurrently to account for the unique and shared effects of polyvictimization. Research evaluating the effects of violence exposure in community settings may misattribute the primary source of variance in psychopathology if they do not also account for the effects of the more proximal effects of violence experienced within the family context.

Contrary to our hypotheses, neither family nor community violence exposure was significantly associated with externalizing symptoms. This contrasts with numerous studies that have demonstrated positive associations of family and community violence exposure with externalizing symptoms (Chan & Yeung, 2009; Ma, Grogan-Kaylor, & Delva, 2016; Maneta et al., 2017; Mohammad et al., 2015; Moylan et al., 2010; Sternberg, 2006). However, several studies have found that family violence exposure is

most consistently associated with internalizing symptoms like anxiety and depression (Ho & Cheung, 2010; Muller et al., 1999). The current sample reported significantly higher externalizing symptoms, on average, than racially and ethnically comparative samples from large-scale surveys assessing measure invariance in the BPI (Guttmanova, Szanyi, & Cali, 2008; Spencer, Fitch, Grogan-Kaylor, & Mcbeath, 2005). As youth from predominantly under-resourced urban neighborhoods with personal histories of violence exposure, participants in the current study may be more likely to demonstrate shared externalizing traits as adaptations to “act tough” in response to consistently elevated perceptions of threat at home and in the community (Gaylord-Harden, Dickson, & Pierre, 2016). Additional variables not accounted for in this study, such as individual differences in emotion regulation or temperament, or social and relational factors, such as parenting style, parent-child relationship, peer relationships, or school climate, may also contribute to variation in externalizing symptoms for an entirely violence-exposed sample more conclusively (Pitzer, Esser, Schmidt, & Laucht, 2009).

Though we only found partial support for our hypothesis that social skills would moderate the relation between violence exposure and psychopathology (and not in the direction we expected), as a single predictor, social skills were negatively associated with internalizing and externalizing symptoms in sample youth. When the effects of cooperation and assertion were evaluated separately, our findings revealed that cooperation, but not assertion, was significantly negatively associated with psychopathology. Though assertion was also negatively associated with internalizing and externalizing symptoms, the results did not demonstrate a significant association between the two. These findings echo a significant body of research documenting an inverse

relation between social skills and psychopathology, wherein greater social skills are associated with decreased internalizing and externalizing symptoms in youth (Margetts, 2004, Oshri et al., 2016). The current study adds support to literature conceptualizing social skills as a protective factor against adverse outcomes in youth exposed to trauma (Howell, 2011; Racine et al., 2020). The development and maintenance of social skills, particularly among youth with histories of violence exposure, may protect against internalizing and externalizing problems by increasing access to social support and providing an increased sense of self-efficacy in navigating challenging, and even threatening, social dynamics (Oshri, Topple, & Carson, 2017).

Clinical Implications

The findings from the current study indicate several recommendations for enhancing trauma-informed prevention, assessment, and intervention work. The current findings support extant literature demonstrating that exposure to violence (often in multiple settings) poses a particular risk for children and adolescents from under-resourced communities *and* that exposure to violence may be associated with a wide range of clinical and normative characteristics. At a foundational level, children in clinical care settings (and beyond) should be screened for lifetime violence exposure including violence type and context. Students with histories of violence exposure should be evaluated for internalizing and externalizing symptoms, as well as resilience-promoting factors such as social skills. Given this study's findings that social skills were negatively associated with internalizing and externalizing symptoms, clinicians should incorporate baseline and longitudinal assessment of social skills at all levels of clinical care with violence-exposed children and teens.

At the prevention and intervention level, universal, evidence-based, and trauma-informed programs designed to enhance social skills should be provided to students, as well as adults, including teachers, parents, and staff in schools and other community settings. Such programming should support students to develop their own social skills, and support adults to learn effective strategies to promote social skills development in their children and students at a personal and institutional level. Universal programming targeting the enhancement of social skills would likely benefit students by bolstering a well-supported resilience factor and enhancing children's capacity to form affirming and protective social bonds. Clinicians administering such programs should evaluate their relevance and specificity to the social norms and expectations of the immediate environment in addition to broader cultural norms.

Programming focused on preventing and mitigating the impact of community-based violence should incorporate intervention strategies that address family violence for youth who endorse histories of physical abuse or witnessing domestic violence during assessment. As community violence was not associated with internalizing and externalizing symptoms beyond the effects of family violence, youth with family violence histories may not improve from interventions targeting community violence alone. Instead, trauma-focused care should take a multi-context approach to assessment and intervention with aims to identify, reduce, and heal the effects of violence perpetrated in the home and the broader community.

Limitations

The current study faces several methodological limitations in its sampling, measurement, and research design. The small sample size may have limited our power to

detect significant effects between predictor and criterion variables as well as our ability to assess differences between witnessing violence and direct victimization or account for multiple exposures within one violence category. Additionally, the sample size constrained our ability to control for the effects of deprivation (neglect) as recommended for analyses that aim to distinguish distinct threat-related pathways from common threat- and deprivation-related pathways between adversity and psychological outcomes (McLaughlin, 2016). The inclusion criteria of exposure to family violence, as well as recruitment strategies targeting families with children with behavior problems from under-resourced neighborhoods may have contributed to a truncated range in violence exposure and externalizing symptoms that limited our ability to detect significant effects. Though a limitation of previous literature – the underrepresentation of Latinos in research samples – is addressed by the current study, the current sample is not representative of the ethnic and racial demographics of the city, state, or country, and thus limits the external validity of these findings (Case & Smith, 2000).

Regarding measurement limitations, research investigating the sequelae of exposure to violence has become increasingly more fine-tuned, with authors analyzing the impact of specific exposure characteristics on outcomes. The current data do not include comprehensive details of the participants' exposure histories and thus likely obscure pertinent characteristics, such as severity, frequency, onset, and duration, that have been shown to significantly impact the relation between violence exposure and psychopathology. Additionally, in combining the child-report and caregiver-report ratings for the SSIS-RS (social skills measure) into one variable, we may have threatened the internal consistency, and thus the predictive power and legitimacy of the scale. A study of

cross informant agreement in the SSIS-RS found a medium correlation between parent and student ratings on the cooperation scale and a very small correlation between parent and student ratings on the assertion scale, suggesting low inter-rater reliability (Gresham et al., 2010). Further, authors assessing potential cultural biases in the BPI (this study's measure of internalizing and externalizing symptoms) found that BPI norms were not equivalent across racial groups, with Black children scoring higher (indicating greater problem severity) on measures of psychopathology than Latino children, who in turn also scored higher than white children (Spencer, Fitch, Grogan-Kaylor, & McBeath, 2005). Though outcome variables were not found to vary significantly based on demographic factors such as race or ethnicity in the current sample, it is important to flag potential shortcomings and biases in the assessment instruments, particularly regarding institutionally marginalized populations.

Additional limitations relate to the cross-sectional design of the current study, which precluded the ability to identify causal relationships between variables. Many of the variables included in this study have been shown in previous literature to have bidirectional relationships, which could not be analyzed in the current sample (Stevens & Mennen, 2018). This design also limited the ability to evaluate how relationships between constructs shift based on developmental stage, as well as to compare symptom trajectories against normative development trajectories – two approaches that are considered best practices in child and adolescent psychology research (Chan & Yeung, 2009; Maneta et al., 2017; McLaughlin, 2016; Renner & Boel-Studt, 2017).

Directions for Future Research

To build upon this study's exploration of the interaction between violence exposure and social skills in youth, future studies should seek to expand the model proposed here while addressing the limitations presented above. Future studies should recruit larger samples and include youth with and without histories of violence exposure. Future studies should use a longitudinal design and test models that incorporate developmental timing and context. Study designs should also include expanded measurement of violence characteristics and history of neglect. Social skills should be assessed using consistent informants across ages (ideally collecting both child and caregiver reports) or with the added use of observational or experimental measures. Researchers should account for potential race and ethnicity biases in assessment of internalizing and externalizing symptoms by testing for demographic-related differences on measures within their sample and potentially adding additional measurement tools to determine convergent validity.

In addition to these suggestions, which are oriented toward addressing the current study's limitations, we propose that future research should also involve school, community, and neighborhood-level data points to provide a broader ecological analysis of the varying social contexts in which youth may be exposed to violence. Researchers may contribute to the small and growing number of papers taking such an approach by using broader sociological tools such as data from the census, departments of education, and policing statistics (see Beyer, Wallis, & Hamberger, 2015; Butcher et al., 2015; Cecil et al., 2014; Ma, Grogan-Kaylor & Delva, 2016; Molnar et al., 2015; Stevens & Mennen, 2018). Though limited by several methodological factors, the current study contributes to

a body of interpersonal violence research that increasingly emphasizes careful measurement and analysis of polyvictimization, distinct assessment of threat and deprivation, incorporation of multiple ecological contexts, and the role of protective factors and moderators in understanding multifinality in outcomes.

APPENDICES

Table 1

Descriptive Statistics for Demographic Variables

Variable	<i>M (SD)</i>	<i>n (%)</i>
Age	10.96 (3.52)	
Gender		
Male		64 (55)
Female		52 (45)
Race & Ethnicity		
Other Race & Hispanic/Latino		82 (71)
Black & Non-Hispanic/Latino		17 (15)
White & Hispanic/Latino		6 (5)
Other & Non-Hispanic/Latino		4 (3)
Black & Hispanic/Latino		3 (3)
Native American & Hispanic/Latino		2 (2)
Unknown		1 (1)

Note. $n = 116$. Mean (M) and Standard Deviation (SD) are presented for all continuous variables whereas frequency (n) and percent (%) are presented for all categorical variables.

Table 2*Descriptive Statistics for Predictor and Criterion Variables*

Variable	<i>M (SD)</i>	<i>n (%)</i>
Exposure to SV		
No Exposure to SV		85 (73)
Exposed to SV		31 (27)
Exposure to FV		
No Exposure to FV		24 (21)
Exposed to FV		92 (79)
Exposure to CV		
No Exposure to CV		74 (64)
Exposed to CV		42 (36)
Cooperation - <i>M (SD)</i>	1.76 (.72)	
Assertion - <i>M (SD)</i>	1.56 (.68)	
Internalizing - <i>M (SD)</i>	4.93 (2.76)	
Externalizing - <i>M (SD)</i>	9.39 (4.38)	

Note. $n = 116$. Mean (M) and Standard Deviation (SD) are presented for all continuous variables whereas frequency (n) and percent (%) are presented for all categorical variables. SV = Sexual Violence, CV = Community Violence.

Table 3*Pearson's r Correlations among Predictor and Criterion Variables*

Variable	1	2	3	4	5	6	7
1. Exposure to Sexual Violence	--						
2. Exposure to Family Violence	.068	--					
3. Exposure to Community Violence	-.050	.296	--				
4. Cooperation	-.122	.002	-.119	--			
5. Assertion	-.078	.034	-.282	.465	--		
6. Internalizing	.257	.218	.024	-.326	-.075	--	
7. Externalizing	.197	.005	.073	-.570	-.167	.565	--

Note. Correlations larger than .19 are inconsistent with a correlation of $p < .05$ two tailed test.

Table 4*Predictors of BPI Internalizing in the Third Block of Hierarchical Regression*

Variable	<i>B</i>	<i>SE B</i>	β	<i>t</i>	<i>p</i>
Exposure to SV	1.268	.535	.204	2.367	.020
Exposure to FV	1.461	.611	.216	2.390	.019
Exposure to CV	-.275	.537	-.048	-.512	.610
Cooperation	-1.327	.372	-.345	-3.571	<.001
Assertion	.326	.406	.081	.803	.424

Note. Cooperation and Assertion variables were centered and gender and exposure to violence variables were dummy coded prior to analyses. SV = Sexual Violence, CV = Community Violence, and BPI = Behavior Problem Index.

Table 5

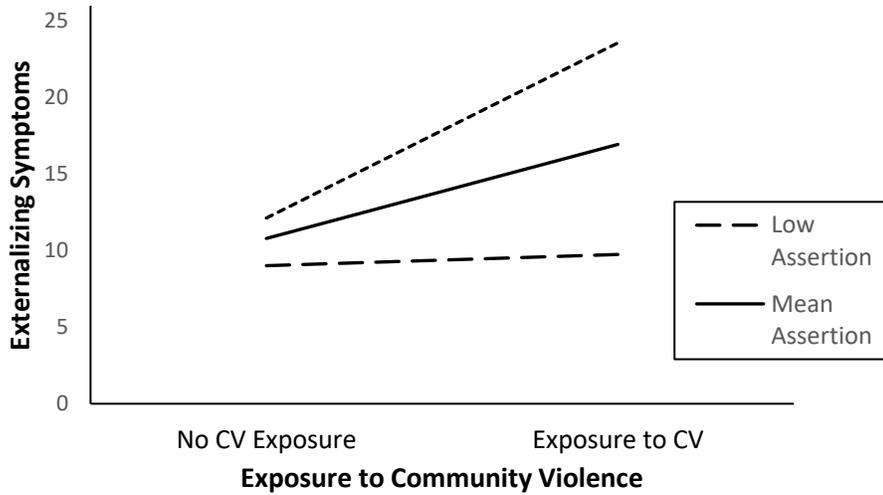
Predictors of BPI Externalizing in the Last Step of Hierarchical Regression with Community Violence by Social Skills (Cooperation and Assertion) Moderation Analysis

Variable	<i>B</i>	<i>SE B</i>	β	<i>t</i>	<i>p</i>
Exposure to SV	1.222	.761	.124	1.606	.111
Exposure to FV	.077	.848	.007	.091	.928
Exposure to CV	.784	.749	.086	1.047	.298
Cooperation	-3.046	.661	-.498	-4.606	<.001
Assertion	-.340	.682	-.053	-.498	.619
Exposure to CV x Cooperation	-1.881	1.071	-.192	-1.756	.082
Exposure to CV x Assertion	3.902	1.203	.340	3.243	.002

Note. Cooperation and Assertion variables were centered and gender and exposure to violence variables were dummy coded prior to analyses. SV = Sexual Violence, CV = Community Violence, and BPI = Behavior Problem Index.

Figure 1

Moderation of Assertion on Effects of Community Violence on Externalizing Symptoms



Note. This figure demonstrates the moderating effects of assertion (social skills) on the relation between community violence exposure and externalizing symptoms. The interaction effect accounts for exposure to community violence, though many sample youth with and without community

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Behavior in Preschool Children. *Aggressive Behavior*, 38(6), 429–441.

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Vita

Name	Emily Christine Hockenberry
Baccalaureate Degree	<i>Bachelor of Arts, Temple University, Philadelphia, PA, Major: History</i>
Date Graduated	<i>May, 2013</i>