



University of
New Haven

University of New Haven
Digital Commons @ New Haven

Psychology Faculty Publications

Psychology

5-13-2014

The Effect of Social Problem Solving Skills in the Relationship between Traumatic Stress and Moral Disengagement Among Inner-City African American High School Students

Kendell L. Coker

University of New Haven, kcoker@newhaven.edu

Uduakobong N. Ikpe

Lansing Correctional Facility

Jeannie S. Brooks

private practice

Brian Page

Chicago School of Professional Psychology

Mark B. Sobell

Nova Southeastern University

Follow this and additional works at: <http://digitalcommons.newhaven.edu/psychology-facpubs>

 Part of the [Psychology Commons](#)

Publisher Citation

Coker, K.L., Ikpe, U., Brooks, J., Page, B., & Sobell, M. (2014). The Effect of Social Problem Solving Skills in the Relationship between Traumatic Stress and Moral Disengagement among Inner-City African American High School Students. *Journal of Child and Adolescent Trauma*, 7(2), 87-95.

Comments

This is the peer reviewed version of the article published in *Journal of Child and Adolescent Trauma*. The final publication is available at Springer via <http://dx.doi.org/10.1007/s40653-014-0012-1>



Published in final edited form as:

J Child Adolesc Trauma. 2014 June 1; 7(2): 87–95. doi:10.1007/s40653-014-0012-1.

The Effect of Social Problem Solving Skills in the Relationship between Traumatic Stress and Moral Disengagement among Inner-City African American High School Students

Kendell L. Coker,

Nova Southeastern University, Yale University School of Medicine

Uduakobong N. Ikpe,

Lansing Correctional Facility

Jeannie S. Brooks,

Independent Practitioner

Brian Page, and

Chicago School of Professional Psychology

Mark B. Sobell

Nova Southeastern University

Abstract

This study examined the relationship between traumatic stress, social problem solving, and moral disengagement among African American inner-city high school students. Participants consisted of 45 (25 males and 20 females) African American students enrolled in grades 10 through 12.

Mediation was assessed by testing for the indirect effect using the confidence interval derived from 10,000 bootstrapped resamples. The results revealed that social problem-solving skills have an indirect effect on the relationship between traumatic stress and moral disengagement. The findings suggest that African American youth that are negatively impacted by trauma evidence

Correspondence concerning this article should be addressed to Kendell L. Coker, Department of Psychiatry, Yale University of Medicine, New Haven, CT. Kendell.coker@yale.edu.

Author Note Kendell L. Coker, PhD, JD, is a postdoctoral fellow in the Department of Psychiatry at Yale University School of Medicine. His current research interests focus on violence, trauma, substance use, and racial disparities in the juvenile and adult criminal justice systems. He received his PhD from Nova Southeastern University and his JD from Loyola University Chicago School of Law.

Uduakobong N. Ikpe, PhD, JD, is a Behavioral Health Clinical Supervisor for Correct Care Solutions at the Lansing Correctional Facility in Kansas. Her research interests include trauma and recidivism reduction in the juvenile and adult criminal justice systems. She received her PhD from Nova Southeastern University and her JD from University of Miami School of Law.

Jeannie S. Brooks, PsyD, is a Licensed Clinical Psychologist currently in private practice in South Florida. She specializes in conducting forensic psychological and neuropsychological evaluations of children, adolescents, adults and families with significant trauma histories, as well as involvement with child protective services and the criminal justice system. She received her PsyD from Nova Southeastern University.

Brian J. Page, M.A. is a doctoral student in the Clinical Forensic PsyD program at The Chicago School of Professional Psychology in Chicago, Illinois. His research interests include complex trauma, substance use, community violence exposure, mental illness stigma, and police psychology. He received his MA from Roosevelt University.

Mark B. Sobell, PhD, ABPP, is a Professor and Associate Director of Clinical Training at the Center for Psychological Studies at Nova Southeastern University. He is also Co-Director of the Guided Self-Change Clinic at NSU. He is a Fellow in the American Psychological Association and is Board Certified in Cognitive and Behavioral Psychology, American Board of Professional Psychology. His research interests include addictions, brief motivational interventions, and the process of self-change. He received his Ph.D. in psychology from the University of California at Riverside.

deficits in their social problem solving skills and are likely to be at an increased risk to morally disengage. Implications for culturally sensitive and trauma-based intervention programs are also provided.

Keywords

adolescent; African American; trauma; exposure to violence; moral disengagement

Moral disengagement is operationally defined as a cognitive distortion that allows negative conduct to be construed as a justified and worthy endeavor (Bandura, Caprara, Barbaranelli, Pastorelli, & Regalia, 2001). This cognitive distortion may serve as a coping strategy (Ng-Mak, Salzinger, Feldman & Stueve, 2002). The underlying mechanisms driving moral disengagement stem from a disconnection from moral standards (Bandura, 1991; Bandura, Barbaranelli, Caprara, & Pastorelli, 1996a; Paciello, Fida, Tramontano, Lupinetti & Caprara, 2008) and this thought pattern can lead to selective detachment from personal control and self-restraint mechanisms due to the belief that such behavior is necessary (Bandura et al., 1996a).

The fundamental components of moral disengagement have been identified as: 1) *moral justification*: which occurs when a person views his or her conduct as having a worthy or moral purpose; 2) *euphemistic language*: a tendency to sanitize language such that the aggressive connotation is removed; 3) *advantageous comparison*: a contrast principle by which conduct is made righteous by comparing it to more reprehensible conduct; 4) *displacement of responsibility*: blaming superiors for one's actions; 5) *diffusion of responsibility*: a collective form of action in which no individual feels responsible because everyone is to blame; 6) *disregarding or distorting the consequences*: a person may feel little restraint because the harm caused by the individual is minimized or ignored; 7) *dehumanization*: labeling individuals with sub-human or less personal qualities makes it easier to transgress against them; and 8) *attribution of blame*: blaming one's victims (Bandura et al., 1996a). Morally disengaged youth present as individuals who interpret their negative behaviors as having positive value, and they consequently externalize responsibility for their actions upon others. Further, morally disengaged youth tend to act out in a socially inappropriate manner and engage in dangerous behaviors (Bandura et al., 1996a) because they have justified their behavior by labeling it as serving a worthy purpose or through the disavowal of personal responsibility. Adolescents who evidence higher levels of moral disengagement remain consistently disengaged into adulthood, which can facilitate maintenance of heightened levels of aggression and violent behavior (Paciello et al., 2008).

A large body of research has been conducted in support of the theory that moral disengagement can be impacted by the surrounding environment (Bandura et al., 1996a; Bandura, Barbaranelli, Caprara, & Pastorelli, 1996b; Kiriakidis, 2008). In addition, several researchers have proposed that cognitive factors, such as moral disengagement, play a central role in the relationship between trauma exposure and aggressive behavior among inner-city African American youth (McMahon, Felix, Halpert, & Petropoulos, 2009). Exposure to trauma could lead to the development of a pathological adaptation to violence

(Ng-Mak et al., 2002; Ng-Mak, Salzinger, Feldman & Stueve, 2004) and to deceased self-efficacy to handle social problems in an effective, non-aggressive manner (LeBlanc, Self-Brown, Shepard, & Kelly, 2011; McMahon, Todd, Martinez, Coker, Sheu, Washburn, & Shah, 2013).

A few recent studies have validated the mediating role of cognitive factors in the relationship between trauma exposure and aggressive behavior among inner-city African American youth. McMahon and colleagues (2009) investigated the impact of community violence exposure on aggressive behavior through two cognitive mediators: normative beliefs about aggression and self-efficacy to control aggression. This study found that exposure to community violence was significantly associated with retaliatory beliefs supporting aggression among a sample of African American youth (McMahon et al., 2009).

Although the literature is supportive of the relationship between trauma and cognitive factors, such as moral disengagement, the full nature of such a relationship has yet to be fully determined among ethnic minority inner-city youth. Thus, the authors wish to expand current understanding of this process among African American inner-city youth.

It is important to highlight the considerable relevance of this study to African American inner-city youth, especially given this population's over-representation within the juvenile justice system. In terms of violence exposure, Osofsky, Wewers, Hann, and Fick (1993) found that 91% of African American youth living in inner-city communities witnessed violence. Additionally, African American youth had victimization rates as high as 70% (Dempsey, 2002). These reported findings are not intended to suggest that the hypotheses put forth in this study are not applicable to other populations. However, a review of the literature suggests that the disproportionate rates of trauma exposure and arrests for delinquent involvement among African American youth has been well documented and implies a need for further investigation to shift the focus towards more culturally relevant trauma-based interventions (Ikpe & Coker, 2010).

One hypothesis regarding factors that can influence the relationship between trauma and moral disengagement concerns social problem-solving skills. LeBlanc and colleagues (2011) examined the impact of problem-solving skills on psychological distress among inner-city African American youth exposed to community and school violence. As predicted, problem-solving moderated the negative impact of community and school violence when controlling for violence exposure within the home and other potentially confounding demographic variables. Similarly, one longitudinal study consisting of 266 inner-city African American youth found that problem-solving skills were associated with less aggression and more pro-social behaviors among teacher reports (McMahon et al., 2009). In addition, more self-efficacy to solve problems in a non-aggressive, peaceful, manner was associated with less self-reported aggression and increased pro-social behavior via teacher reports (McMahon et al., 2009).

Youth with increased levels of traumatic exposure are believed to experience deficiencies in cognitive processes, such as self-efficacy and social problem solving skills, that could potentially increase the probability of delinquent behaviors, while decreasing an ability to

remove oneself from problematic situations (Kerig & Becker, 2010). Individuals with trauma histories may utilize moral disengagement as a means of justifying transgressive behavior in the absence of adequate problem-solving abilities. Social problem-solving skill deficits are also associated with psychological distress (Biggam & Power, 1999; McMurrain & Christopher, 2009), which can also be related to an increased reliance on unconventional problem-solving styles (Biggam & Power, 1999). It is further suggested moral disengagement constitutes an unconventional problem-solving style that might result from the relative absence of pro-social problem-solving skills in traumatized youth.

Research has shown that exposure to traumatic experiences, such as crime and violence, found in predominantly African American communities exceed those in areas dominated by most other ethnic groups (Dalaker, 2001; Hannon & DeFina, 2005; Jones, 2007; Jones-Webb & Wall, 2008). This increased exposure to potentially traumatizing events makes the African American community one of interest when investigating the relationships between moral disengagement, trauma, and social problem solving. Despite the impressive literature that is currently available, to the authors' knowledge, few studies have investigated the aforementioned processes in conjunction with one another and with a particular emphasis on African American inner-city high school students. Collectively, it is postulated that if social problem-solving skills serve a mediating function in the construct of maladaptive behavior, then social problem-solving skills might also mediate maladaptive forms of coping, such as moral disengagement.

Current Research

The current study constitutes a pilot investigation utilizing a cross-sectional design to investigate the hypothesis that social problem-solving is implicated in the relationship between traumatic stress and moral disengagement among African American inner-city youth. More specifically, this study examines the interrelated effects of traumatic exposure, impairments in social problem solving skills, and moral disengagement.

The current study parallels previous investigations, in that the authors focus on the impact of trauma on African American inner-city youth. However, unlike previous studies, the purpose of the current investigation is to identify the impact of negative or traumatic experiences on social-cognitive processes, such as social problem solving, and their influence on transgressive decision making within the conceptual framework of Albert Bandura's Model of Moral Disengagement (Bandura, 1990). It is the authors' opinion that this investigation can be critical in fostering understanding of some of the processes that differentiate most African American inner-city youth that respond to unfortunate environmental conditions in adaptive ways versus others who exhibit maladaptive behavioral responses to the environment.

Hypothesis

Social problem-solving will function as a mediator vis-à-vis an indirect effect in the relationship between traumatic stress and moral disengagement.

Due to the complex nature of trauma and the various ways it affects individuals, it may not necessarily be anticipated that social problem-solving could completely account for the relationship between trauma and moral disengagement. Nonetheless, this study serves to provide an initial and novel framework for facilitating a better and more meaningful understanding of the impact trauma has on African American inner-city youth.

Method

Participants

The participants in the current study were recruited from a predominantly African American local public high school in an inner-city area in the southern part of Florida. The sample characteristics are displayed in Table 1. The participants consisted of 45 African American students. There were 25 (56%) males and 20 (44%) females. The mean age for the sample was 16-years-old ($SD = .84$). Out of the 45 participants in this study, 19 participants were enrolled in the 10th grade (42%), 18 participants were enrolled in the 11th grade (40%), and 8 participants were enrolled in the 12th grade (18%). The participants were given a \$10 gift certificate for their voluntary participation in the study, which was approved by the local school board and the Institutional Review Board (IRB).

Procedures

For this pilot study, a local public high school in an inner-city area of southern Florida was identified due to a series of violent incidents that reportedly occurred among students at this school. The nature of the occurrences led to significant concern among school officials and members of the community. However, school officials commented that these incidents were not an entirely new phenomenon to these youth and the surrounding community. Conversely, they were interested in developing improved strategies that would facilitate timely and efficient identification of such problems in order to promote improved safety and a reduction in violence. The researchers did not approach any students about participating in the study. Rather, the homeroom teachers were contacted through an official at the school, who in turn provided their students with a brief description of the study. The students were instructed to inform their homeroom teachers if they wished to participate in the study. Teachers assisted the researchers in obtaining parental consent for all students who expressed interest in becoming participants, and verbal and written consent was obtained. All students who expressed interest and submitted their consent forms participated in the study.

The school provided the investigators with a closed space where participants were scheduled to meet with the researchers to complete the data-gathering phase of the study. In order to minimize interruption to the school's academic schedule, the investigators spent no more than one week at the school collecting the data. Each participant, upon arriving to meet with the data collector, was given an envelope containing relevant questionnaires. The measures were administered individually as self-reports. Each participant was assigned a numeric identification code and they were instructed to document at the top of each self-report form to maximize confidentiality of participant responses.

In order to address concerns regarding the potential for emotional distress, each participant questionnaire packet also contained an “Option to Debrief” form. Thus, all participants were provided an opportunity to request a debriefing session by checking a designated box on the “Option to Debrief” form. The elected debriefing sessions consisted of a personal meeting between the participant and an investigator involved in the current study to address any concerns that might have arisen during their participation in the data gathering phase. In addition, for those participants who might not have felt comfortable with contacting the investigator, each questionnaire packet also included a form for the students to maintain, entitled “Psychological Intervention & Resources Page”, which listed local contact information for counseling and psychological intervention resources.

Instruments

Traumatic Stress—Trauma was measured using the My Worst Experience Scale (MWES; Hyman, Snook, Berna, DuCette, & Kohr, 2002), which is comprised of two parts. Part one lists 21 events and asks the individual to indicate which was his or her worst experience. Part two of the MWES asks the individual to respond to 105 thoughts, behaviors, and emotions that may be associated with their worst experience. This instrument has a total MWES score, an Inconsistent Responding Index, and Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV) criterion subscales which include scales such as re-experiencing, avoidance and numbing, and increased arousal, which are symptoms that may be related to a diagnosis of Posttraumatic Stress Disorder (PTSD). For the current sample, the internal consistency for the symptom portion of the MWES, which includes all of the criterion and symptomatic scales, was .92.

Social Problem-Solving—Social problem-solving skills were measured using the Social Problem Solving Inventory-Revised (SPSI-R; D’Zurilla, Nezu, & Maydeu-Olivares, 2002). This 52-item measure assesses two constructive/adaptive problem-solving dimensions (i.e., Positive Problem Orientation and Rational Problem Solving). The SPSI-R provides a total score, which is a global indicator of an individual’s total social problem-solving ability. Higher scores suggest a respondent likely possesses more effective problem-solving skills, whereas lower scores are indicative of more dysfunctional problem solving strategies. This measure has been used in studies with African American samples (Kasckow et al., 2010; Daunic et al., 2012). In the current sample, the internal consistency of the SPSI-R was .89.

Moral Disengagement—Individual levels of moral disengagement were measured utilizing Bandura’s Moral Disengagement Scale (MDS; Bandura, 1995). This 32-item self-report measure is designed to assess the mechanisms by which moral self-sanctions are selectively activated and disengaged at different points. The scales include: Moral Justification, Euphemistic Language, Advantageous Comparison, Displacement of Responsibility, Diffusion of Responsibility, Distorting Consequences, Attribution of Blame, and Dehumanization. This measure has demonstrated significantly high correlations with delinquent behaviors, and reliability analyses of internal consistency range from .82 to .86 (Bandura et al., 1996a; Bandura et al., 2001). These eight mechanisms are useful from a descriptive point of view, but moral disengagement is structurally a unitary construct (Bandura et al., 1996a) and thus, the composite score should be used. This measure has been

used with diverse samples and it is important to note the Euphemistic Language scale was removed from the measure due to studies suggesting the complex nature of the questions comprising this scale may decrease applicability to African American and other American minority samples (Pelton, Gound, Forehand, & Brody, 2004). In the current sample, the internal consistency of the MDS was .72.

Results

Descriptive Statistics

The validity indices for the instruments were assessed on all protocols. The final sample size for this study was $n = 45$ (25 males, 20 females). Regression diagnostics such as studentized jackknife (deleted residuals) were conducted on the data to check the assumptions and to assess the accuracy of computations for the regression analysis. In addition, the Shapiro-Wilk test, which is deemed appropriate for small sample sizes typically less than 50 (Kleinbaum, Kupper, Muller, & Nizam, 1998), revealed that the assumption of normality for the studentized deleted residuals was tenable ($W = .971, p = .310$). Analyses were conducted to assess any influential data points and none of these measures revealed influential data points that warranted significant attention. Further analyses revealed that neither collinearity nor variance inflation between the predictors appeared to compromise the results.

Main Analyses for Traumatic Stress, Social Problem Solving, and Moral Disengagement

With regard to the independent variable of traumatic stress, overall, this sample scored in the 93rd percentile (Hyman et al., 2002) which reached the ‘clinical significance’ range (Table 1; $M = 205.6, SD = 110.8$). There was significant variability in their scores, as evidenced by the standard deviation. Nonetheless, even the participants in this sample that fell one standard deviation below the sample mean was in the ‘above average’ range (Hyman et al., 2002) for traumatic stress.

The authors initially conducted a correlation matrix to delineate the relationship between the variables under investigation. The relationship between traumatic stress and moral disengagement (MDS) was not significant, $r(43) = .147, p = .336$, as shown in Table 2. The relationship between the hypothesized mediating variable (social problem solving; SPS), and the dependent variable (moral disengagement) was statistically significant, $r(43) = -.391, p = .008$. This shows a significant relationship between social problem solving and moral disengagement. The relationship between social problem solving and traumatic stress was also significant and inversely related, $r(43) = -.332, p = .026$.

To test for mediation, the authors used the Preacher and Hayes (2004) method of the sampling distribution of the indirect effect. A previously popular method used to test mediation was developed by Baron and Kenny (1986). According to Baron and Kenny, there must be an initial total effect that is met. To explain, their research emphasized that there must be a significant relationship between the independent variable, trauma, and the dependent variable, moral disengagement (Baron and Kenny, 1986). Baron and Kenny (1986) pointed out that there is perfect mediation when the effect of X on Y decreases to

zero when the mediator is included. The regression coefficients for the mediation model are provided in Figure 1.

The effect of traumatic stress on social problem solving was significantly different from zero, suggesting that students with higher rates of traumatic stress had lower social problem solving scores, $t(43) = -2.31, p = .026$. The effect of social problem solving on moral disengagement, (while controlling for traumatic stress), was also significantly different from zero, indicating that students with lower social problem solving scores tended to score higher on indices of moral disengagement, even after controlling for traumatic stress, $t(42) = -2.55, p = .015$. The direct effect of traumatic stress on moral disengagement, while controlling for social problem solving was not significantly different from zero, indicating no relationship between traumatic stress and moral disengagement after controlling for social problem solving, $t(42) = .13, p = .899$. Baron and Kenny's (1986) method has been criticized. For instance, Preacher and Hayes (2004) suggested there does not need to be a significant initial total effect relationship found in order for there to be a significant indirect effect (Collins, Graham, & Flaherty, 1998; Mackinnon, 2000; Mackinnon, Krull, & Lockwood, 2000; Preacher & Hayes, 2004).

Furthermore, Preacher and Hayes (2004) are not the only researchers who argued that there does not need to be an initial total effect in order to find mediation (Shrout & Bolger, 2002). Several researchers have questioned whether there needs to be an initial total effect for mediation to be present. According to Shrout and Bolger (2002), the size of the effect decreases as the causal process between the independent and dependent variables become more distal. Thus, developmental processes may be less likely to reveal initial total effect relationships because the association between the independent and dependent variable may take time to occur. As it relates to the current study, the negative effects and symptoms of trauma are not always immediately felt by or identified in an individual in cases where a diagnosis of PTSD is suspected. Consequently, the mediation hypothesis for this study was tested using the model suggested by Preacher and Hayes (2004).

Small sample sizes ($n = 45$) can result in lower power. As a result, bootstrapping was utilized as a way of dealing with the potentially confounding effects of low statistical power (Preacher & Hayes, 2004). Using the recommended strategy by Preacher and Hayes (2004) for assessing mediation by testing for the indirect effect, a confidence interval was derived using the bootstrapped sampling distribution. This bootstrapped sampling method is not based on large-sample theory, and therefore can be applied to small samples with greater confidence (Preacher & Hayes, 2004). According to Preacher and Hayes (2004), bootstrapping data is a recommended statistical procedure to test for an indirect effect in mediation. For this study, there were 10,000 bootstrap resamples requested in the SPSS command syntax.

The hypothesized mediation model was accepted. The point estimate that was calculated, as shown in Table 3, is the mean indirect effect, ($ab = .0155$) that is computed over the 10,000 samples, and the estimated standard error (s.e. = .0080) is the standard deviation of the 10,000 sample estimates of the indirect effect (Preacher & Hayes, 2004). Based on the bootstrapped results, the lower limit of the confidence interval was .0028, and the upper

limit was .0340. The results revealed that the confidence intervals are not equidistant from the mean estimate of the indirect effect, which was consistent with Preacher and Hayes (2004) findings that the *ab* distribution is often asymmetrical. The bootstrap results demonstrated that the true indirect effect is estimated to lie between .0026 and .0353 with 95% confidence. Because zero is not included in the 95% confidence interval, the indirect effect is significantly different from zero ($p < .05$). Collectively, the results reveal that social problem solving plays a key role in in the relationship between traumatic stress and moral disengagement among African American inner-city youth.

Some literature posited that the relationship between traumatic stress, externalizing behavior, and moral disengagement can be moderated by a myriad of factors such as gender (Ng-Mak et al., 2002). In order to assess the influence of gender, interaction terms were created and entered into the regression analysis. Table 4 revealed that neither traumatic stress, $t(39) = -0.03$, $p = .979$, nor social problem solving, $t(39) = -0.98$, $p = .333$ produced a significant interaction with gender. In other words, the interaction terms between the predictors and gender did not contribute to the prediction of moral disengagement while the remaining predictors in the model were held constant.

Discussion

Results from the current study demonstrated that as reported traumatic stress increases, so does reported deficits in social problem-solving. Similarly, the results demonstrated that as social problem-solving decrease, moral disengagement increases. More specifically, this study supported the hypothesis that social problem-solving plays a key role in the relationship between trauma exposure and moral disengagement, as demonstrated by the significance of social problem-solving skills' indirect effect. Thus, the stress symptoms associated with trauma impacts social problem-solving, which in turn contributes to moral disengagement among African American inner-city youth. That is, African American inner-city youth tend to exhibit higher levels of moral disengagement as a function of greater traumatic stress symptoms.

The results suggest that the mechanism by which moral disengagement occurs (i.e., altered interpretations of “right and wrong” moral standards) develops as a result of traumatic experiences and symptoms in an indirect manner, and these mechanisms are believed to be at least partially due to deficits in social problem-solving. Trauma-exposed youth experience a state of hyperarousal, which can contribute to deficits in social-cognitive functioning in the form of misinterpretation of environmental cues (Dodge, Lochman, Harnish, Bates, & Pettit, 1997). Youth that perceive the world as hostile would have little internal resistance to engage in problematic and perhaps dangerous behaviors towards themselves and others, thus exhibiting a tendency to justify their transgressive actions (Baer & Maschi, 2003).

When considering the overlapping nature of multiple traumatic experiences that are likely to occur in many environments (Alim, Charney, & Mellman, 2006; Alim et al., 2008; Fitzpatrick & Boldizar, 1993), it is suggested that one's justification of maladaptive behavioral reactions can become even more solidified over time. In addition, it is postulated that African American inner-city youth that exhibit moral disengagement may be more

likely to seek out, identify, and associate with peers that are also morally disengaged, which could further reinforce certain maladaptive cognitions that drive negative behaviors (Caravita, Sijtsema, Rambaran, & Gini, 2013). Additionally, it is possible that differing levels of psychological resiliency can work to activate and deactivate different mechanisms of moral disengagement in response to certain traumatic situations and related events (Thorkildsen, 2009).

Limitations and Directions for Future Research

Although this study contributes to the current literature supporting the impact of trauma on social problem-solving and its relation to moral disengagement, several limitations are important to consider. This study consisted of entirely inner-city African Americans who came from an inner-city school with recent problems of severe violence, which may limit the generalizability of these findings. Thus, this study may not apply to other ethnicities or youth in schools experiencing less severe violence. However, African American youth are exposed to greater amounts of violence than other ethnic groups (McMahon et al., 2013; Sharkey, 2010), and have higher victimization rates than White youth (Overstreet & Mathews, 2011). In addition, similar studies which recruited students from high-crime schools and neighborhoods unfortunately also had significantly higher percentages of African American youth in their samples (LeBlanc et al., 2011; McMahon et al., 2009). Thus, the current study does, at least in part, expand our understanding of the influence of trauma on this population and potentially to African American youth in schools struggling with severe violence. The authors acknowledge that trauma is quite complex and the current study presents a model which can contribute to the field's growing understanding of the negative impact trauma can have on some minority youth.

Even though research shows that moral disengagement is linked to aggressive and other types of transgressive behavior (Pelton et al., 2004), the current study only assessed the extent to which these youth report selectively activating and disengaging these processes at different points. Similarly, the SPSI-R may actually be assessing youths' view of their difficulties in handling social problems rather than their actual problem solving skills. Therefore, future studies may want to consider also collecting data on youths' actual involvement in transgressive behaviors and utilize additional well-validated problem-solving measures in order to further elucidate and provide practical applications regarding the manner in which moral disengagement is exhibited as a result of poor social problem solving skills.

Also, the sample size ($n = 45$) of the current study was relatively small, which contributes to low statistical power. Although bootstrapping was utilized to compensate for this limitation, the small sample size prevented the ability to make multiple comparisons based on variables such as gender, age, or type of traumatic exposure and future research should explore the impact of these variables using a larger sample.

Another limitation to the current study is the possibility of sampling bias. There may be certain individual characteristics common among the students who expressed a willingness to participate in the study, as well as certain types of parents willing to consent to their participation. This concern can be attenuated with a larger sample. Studies have shown that

recruitment of African Americans for research purposes can be challenging due to a lack of trust towards the scientific, medical, and research communities (Corbie-Smith, Thomas, Williams, & Moody-Ayers, 1999; Diaz, Mainous, McCall, & Geesey, 2008; Galea & Tracy, 2007). Research, especially in inner-city areas, should take these cultural issues into consideration throughout the recruitment process in order to maximize participation (Hammer, 2000). Improving participation is critical to gaining a better understanding regarding the manner in which certain experiences, such as trauma, might affect the social-cognitive functioning of minority youth living in inner-city areas. Future studies could also delineate possible ways in which familial and peer networks serve as a risk or protective function in the likelihood of traumatized youth morally disengaging (Oravec, Osteen, Sharpe, & Randolph, 2011; Rankin & Quane, 2002).

Implications for Treatment Providers

Significant efforts to improve culturally-sensitive treatment models and programs that espouse a trauma-informed care perspective for African American inner-city youth are necessary. Findings from the current investigation highlight the importance of such efforts, as increased traumatic stress among inner-city African American youth appears to negatively impact perceptions of their ability to use effective social problem-solving skills. In turn, as perceived social problem-solving abilities are suppressed, moral disengagement is fostered and thus may constitute a driving mechanism for future delinquency. Currently, there are trauma-based interventions for youth and it can be beneficial to incorporate strategies into these interventions that not only incorporate social problem skills, but also these youths' self-efficacy about using problem solving skills in social situations. Some studies have yielded some success in targeting social problem-solving skills among large samples of African American youth in schools (Daunic et al., 2012). Other programs in schools and in the community have been effective at developing prevention strategies and targeting efforts aimed at reducing gangs, violence, and improving youths' conflict resolution skills (Howell, 2000; McMahan et al., 2009). As a result of enhanced social problem-solving abilities, moral disengagement processes which result in justifying transgressive acts may be less likely to occur and lead to positive improvements in the youth and consequently, the communities in which they live.

Schools and community-based providers can implement programs for inner-city African American youth that engage in building social problem-solving skills and provide more intensive services for those with traumatic backgrounds and experiencing traumatic stress. Schools can be particularly promising sites for such interventions (Overstreet & Mathews, 2011; Oravec et al., 2011) because the main functions of most schools are to enhance youths' emotional, cognitive, and social development through enhanced social problem-solving skills.

From a practical viewpoint, it would appear imperative that providers, educators, and other individuals that can have a significant impact on the lives of African American inner-city youth receive education that pertains specifically to this population. Prior to focusing on improving treatment models and programs themselves, it may also be important to ensure that those providers seeking to deliver services to inner-city African American youth acquire

the requisite training and expertise in the assessment of trauma and these youth responses to these traumatic experiences which might be heavily influenced by contextual factors.

Acknowledgments

This research was drawn from Kendell L. Coker's doctoral dissertation, submitted to the School of Psychology of Nova Southeastern University, and supervised by Dr. Mark Sobell, Dr. Edward Simco, and Dr. Lenore Walker. This article is dedicated to Dr. Coker's cousin, Shannon T. McKinney.

References

- Alim TN, Charney DS, Mellman TA. An overview of posttraumatic stress disorder in African Americans. *Journal of Clinical Psychology*. 2006; 62:801–813. [PubMed: 16703601]
- Alim TN, Feder A, Graves RE, Wang Y, Weaver J, Westphal M, Alonso A, Aigbogun NU, Smith BW, Doucette JT, Mellman TA, Lawson WB, Charney DS. Trauma, resilience, and recovery in a high-risk African-American population. *Journal of American Psychiatry*. 2008; 165:1566–1575.
- Baer J, Maschi T. Random acts of delinquency: Trauma and self-destructiveness in juvenile offenders. *Child and Adolescent Social Work Journal*. 2003; 20:85–98.
- Bandura, A. Mechanisms of moral disengagement. In: Reich, W., editor. *Origins of Terrorism Psychologists, Ideologies, Theologies, States of Mind*. Cambridge University Press; 1990.
- Bandura, A. Social cognitive theory of moral thought and action. In: Kurtines, WM.; Gewirtz, JL., editors. *Handbook of moral behavior and development*. Vol. Vol. 1. Erlbaum; Hillsdale, NJ: 1991. p. 45-103.
- Bandura, A. *Multifaceted Scale of Moral Disengagement*. Stanford University; Stanford, CA: 1995.
- Bandura A, Barbaranelli C, Caprara GV, Pastorelli C. Mechanisms of moral disengagement in the exercise of moral agency. *Journal of Personality and Social Psychology*. 1996a; 71:364–374.
- Bandura A, Barbaranelli C, Caprara GV, Pastorelli C. Multifaceted impact of self-efficacy beliefs on academic functioning. *Child Development*. 1996b; 67:1206–1222. [PubMed: 8706518]
- Bandura A, Caprara GV, Barbaranelli C, Pastorelli C, Regalia C. Sociocognitive self-regulatory mechanisms governing transgressive behavior. *Journal of Personality and Social Psychology*. 2001; 80:125–135. [PubMed: 11195885]
- Baron RM, Kenny DA. The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality & Social Psychology*. 1986; 51:1173–1182. [PubMed: 3806354]
- Biggam FH, Power KG. Social problem-solving skills and psychological distress among incarcerated young offenders: The issue of bullying and victimization. *Cognitive Therapy and Research*. 1999; 23:307–326.
- Caravita SCS, Sijtsema JJ, Rambaran JA, Gini G. Peer influences on moral disengagement in late childhood and early adolescence. *Journal of Youth and Adolescence*. 2013; 42(5)
- Collins LM, Graham JW, Flaherty BP. An alternative framework for defining mediation. *Multivariate Behavioral Research*. 1998; 33:295–312.
- Corbie-Smith G, Thomas SB, Williams MV, Moody-Ayers S. Attitudes and beliefs of African Americans toward participation in medical research. *Journal of General Internal Medicine*. 1999; 14:537–546. [PubMed: 10491242]
- Dalaker, J. Poverty in the United States: 2000. U.S. Census Bureau. 2001. Retrieved from <http://www.census.gov/prod/2001pubs/p60-214.pdf>
- Daunic AP, Smith SW, Garvan CW, Barber BR, Becker MK, Peters CD, Taylor GG, Van Loan CL, Li W, Naranjo AH. Reducing developmental risk for emotional/behavioral problems: A randomized controlled trial examining the Tools for Getting Along Curriculum. *Journal of School Psychology*. 2012; 50:149–166. [PubMed: 22386118]
- Dempsey M. Negative coping as a mediator in the relation between violence And outcomes: Inner-city African American youth. *American Journal of Orthopsychiatry*. 2002; 72:102–109. [PubMed: 14964599]

- Diaz VA, Mainous AG, McCall AA, Geesey ME. Factors affecting research participation in African American college students. *Family Medicine*. 2008; 40:46–51. [PubMed: 18172798]
- Dodge KA, Lochman JE, Harnish JD, Bates JE, Pettit GS. Reactive and proactive aggression in school children and psychiatrically impaired chronically assaultive youth. *Journal of Abnormal Psychology*. 1997; 106:37–51. [PubMed: 9103716]
- D’Zurilla, T.J.; Nezu, AM.; Maydeu-Olivares, A. *Social Problem-Solving Inventory-Revised*. Multi-Health Systems, Inc; North Tonawanda, NY: 2002.
- Fitzpatrick KM, Boldizar JP. The prevalence and consequences of exposure to violence among African-American youth. *Journal of the American Academy of Child & Adolescent Psychiatry*. 1993; 32(2):424–430. [PubMed: 8444774]
- Galea S, Tracy M. Participation Rates in Epidemiologic Studies. *Annals of Epidemiology*. 2007; 17:643–653. [PubMed: 17553702]
- Hammer CS. Strategies for recruiting African American and Hispanic women as participants in research. *Contemporary Issues in Communication Science and Disorders*. 2000; 27:127–134.
- Hannon L, DeFina R. Violent crime in African American and White neighborhoods: Is poverty’s detrimental effect race-specific? *Journal of Poverty*. 2005; 3:49–67.
- Howell, JC. Youth gang programs and strategies. U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention; Washington, D.C: 2000. Retrieved from <https://www.ncjrs.gov/pdffiles1/ojdp/171154.pdf>
- Hyman, IA.; Snook, PA.; Berna, J.; DuCette, J.; Kohr, M. *My Worst Experience Scale*. Western Psychological Services; Los Angeles, CA: 2002.
- Ikpe U, Coker KL. Encouraging the use of community involvement and restorative practices as treatment for trauma with black juvenile offenders. *Loyola Public Interest Law Reporter*. 2010; 3:220–233.
- Jones JM. Exposure to chronic community violence: Resilience in African American children. *Journal of Black Psychology*. 2007; 33:125–149.
- Jones-Webb R, Wall M. Neighborhood racial/ethnic concentration, social disadvantage, and homicide risk: An ecological analysis of 10 cities. *Journal of Urban Health*. 2008; 85:662–676. [PubMed: 18661242]
- Kasckow J, Brown C, Morse C, Karpov I, Bensasi S, Thomas SB, Ford A, Reynolds C. Racial preferences for participation in a depression prevention trial involving problem-solving therapy. *Psychiatric Services*. 2010; 61:722–724. [PubMed: 20592009]
- Kerig, PK.; Becker, SP. From internalizing to externalizing: Theoretical models of the processes linking PTSD to juvenile delinquency. In: Egan, SJ., editor. *Post-Traumatic Stress Disorder: Causes, Symptoms, and Treatment*. Nova Science Publishers, Inc; Hauppauge, New York: 2010. p. 33-78.
- Kiriakidis SP. Moral disengagement: Relation to delinquency and independence from indices of social dysfunction. *International Journal of Offender Therapy and Comparative Criminology*. 2008; 52(5):571–583. [PubMed: 18025073]
- Kleinbaum, DG.; Kupper, LL.; Muller, KE.; Nizam, A. *Applied Regression Analysis and Other Multivariable Methods*. 3rd Edition. Duxbury Press; Pacific Grove, CA: 1998.
- LeBlanc M, Self-Brown S, Shepard D, Kelley ML. Buffering the effects of violence: Communication skills and problem solving skills as protective factors for adolescents exposed to violence. *Journal of Community Psychology*. 2011; 39(3):353–367.
- Mackinnon, DP. Contrasts in multiple mediator models. In: Rose, JS.; Chassin, L.; Presson, CC.; Sherman, SJ., editors. *Multivariate Applications in Substance Use Research: New Methods for New Questions*. Erlbaum; Mahwah, NJ: 2000.
- Mackinnon DP, Krull JL, Lockwood CM. Equivalence of the mediation, confounding, and suppression effects. *Preventive Science*. 2000; 1:173–181.
- McMahon SD, Felix ED, Halpert JA, Petropoulos LAN. Community violence exposure and aggression among urban adolescents: Testing a cognitive mediator model. *Journal of Community Psychology*. 2009; 37(7):895–910.
- McMahon SD, Todd NR, Martinez A, Coker C, Sheu CF, Washburn J, Shah S. Aggressive and pro-social behavior: Community violence, cognitive, and behavioral predictors among urban African-

- American youth. *American Journal of Community Psychology*. 2013; 51:407–421. [PubMed: 23229395]
- McMurrin M, Christopher G. Social problem solving, anxiety, and depression in adult male prisoners. *Legal and Criminological Psychology*. 2009; 14:101–107.
- Ng-Mak DS, Salzinger S, Feldman R, Stueve A. Normalization of violence among inner-city youth: A formulation for research. *American Journal of Orthopsychiatry*. 2002; 72:92–101. [PubMed: 14964598]
- Ng-Mak DS, Salzinger S, Feldman R, Stueve A. Pathological Adaptation to community violence among inner-city youth. *American Journal of Orthopsychiatry*. 2004; 72:92–101. [PubMed: 14964598]
- Oravec LM, Osteen PJ, Sharpe TL, Randolph SM. Assessing low income African American preschoolers' behavior problems in relationship to community violence, inter-partner conflict, parenting, informal social support and social skills. *Child and Family Social Work*. 2011; 16:310–324.
- Osofsky JD, Wewers S, Hann DM, Fick AC. Chronic community violence: What is happening to our children. *Psychiatry*. 1993; 56:36–45. [PubMed: 8488211]
- Overstreet S, Mathews T. Challenges associated with exposure to chronic trauma: Using a public health framework to foster resilient outcomes among youth. *Psychology in the Schools*. 2011; 48:738–754.
- Paciello M, Fida R, Tramontano C, Lupinetti C, Caprara GV. Stability and change of moral disengagement and its impact on aggression and violence in late adolescence. *Child Development*. 2008; 79:1288–1309. [PubMed: 18826526]
- Pelton J, Gound M, Forehand R, Brody G. The Moral Disengagement Scale: Extension with an American minority sample. *Journal of Psychopathology and Behavioral Assessment*. 2004; 26:31–39.
- Preacher KJ, Hayes AF. SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*. 2004; 36:717–731.
- Rankin BH, Quane JM. Social contexts and urban adolescent outcomes: The interrelated effects of neighborhoods, families, and peers on African-American Youth. *Social Problems*. 2002; 49(1):79–100.
- Sharkey P. The acute effect of local homicides on children's cognitive performance. *Proceedings of the National Academy of Sciences of the United States of America*. 2010; 107:11733–11738. [PubMed: 20547862]
- Shrout PE, Bolger N. Mediation in experimental and nonexperimental studies: New procedures and recommendations. *Psychology Methods*. 2002; 7:422–445.
- Thorkildsen TA. Adolescents' moral engagement in urban settings. *Theory into Practice*. 2009; 46(2): 113–120.

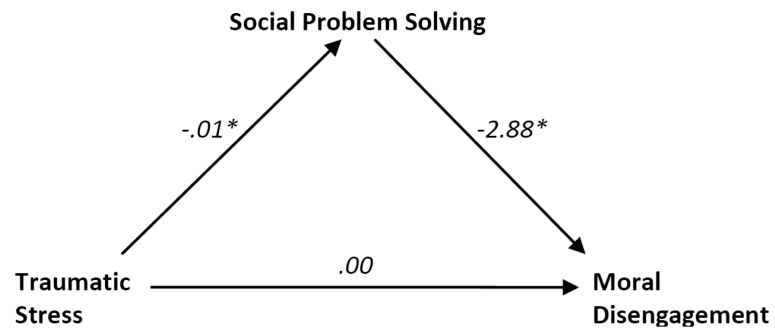


Figure 1. Mediation Model Regression Coefficients

The direct effect is illustrated as the relationship between the dependent and independent variables while controlling for the mediator.

Table 1

Sample Characteristics and Baseline Variable Means

Variable	<i>M</i>	<i>SD</i>	<i>N (%)</i>
Gender			
Males	--	--	25 (56%)
Females	--	--	20 (44%)
Age	15.98	.84	--
Grade			
10th	--	--	19 (42%)
11th	--	--	18 (40%)
12th	--	--	8 (18%)
*Traumatic Stress ^a	205.6	110.8	--
*Social Problem Solving Skills ^b	11.4	1.8	--
*Moral Disengagement	67.4	13.4	--

* *Note.* The sample means in the table above is based on the total (composite) score.

^aThe mean score is equivalent to a T score of 65 and falls in the 'clinically significant' range.

^bThe social problem solving skills mean score falls within the norm group 'average' range.

Table 2

Correlations Between Social Problem Solving, Trauma, and Moral Disengagement

Variable	1	2	3
1. Social Problem Solving	--	-.332*	-.391**
2. Traumatic Stress		--	.147
3. Moral Disengagement			--

Note. *p < .05. **p < .01. ***p < .001.

Table 3

Bootstrap Results for Testing Indirect Effect

Test of Indirect Effect	Mean	S.E.	LL 95% CI	UL 95% CI
Indirect Effect	.0155	.0080	.0028	.0340

Note. Bootstrap resamples = 10,000

Table 4

Regression Coefficient Testing Significance of Moderation of Gender

Predictors	Unstandardized <i>b</i>	S.E.	Standardized <i>b</i>	<i>t</i>	<i>p</i> -value
Model 1					
Traumatic Stress	.020	.018	.163	1.089	.283
SPS	-2.293	1.073	-.306	-2.136*	.039
Gender	-10.240	3.774	-.385	-2.713**	.010
Model 2					
Traumatic Stress	.013	.029	.111	.454	.652
SPS	-1.367	1.406	-.182	-.972	.337
Gender	-35.672	29.998	-1.342	-1.189	.242
Traumatic Stress*Gender	-.001	.039	-.010	-.027	.979
SPS*Gender	-2.248	2.291	-.978	-.981	.333

Note. **p* < .05. ***p* < .01. ****p* < .001.