ALTRUISITIC PROSOCIAL BEHAVIOR AS A PROTECTIVE FACTOR FOR
AFRICAN AMERICAN ADOLESCENTS EXPOSED TO COMMUNITY VIOLENCE

AN ABSTRACT

SUBMITTED ON THE TWENTY-SEVENTH DAY OF FEBRUARY 2015

TO THE DEPARTMENT OF PSYCHOLOGY

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

OF THE SCHOOL OF SCIENCE AND ENGINEERING

OF TULANE UNIVERSITY

FOR THE DEGREE

OF

MASTERS OF PSYCHOLOGY

BY

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Abstract

Prosocial behavior during adolescence is consistently associated with a myriad of positive outcomes including fewer risk-taking behaviors and greater positive affect. Although limited, there is some literature that suggests prosocial behavior is an important protective factor in attenuating the effects of stressful life events such as exposure to community violence. Unfortunately work examining prosocial behaviors in African American adolescents is very sparse. The present study examined the moderating role of altruism, a specific form of prosocial behavior, on relationships between exposure to violence and negative mental health outcomes in a sample of 207 African American adolescents (136 females, 71 males). Participant’s age ranged from 13 to 18 ($M = 15.78$, $SD = 1.19$). Results indicated that boys and girls engaged in similar levels of altruistic behaviors, but these behaviors were especially important in moderating the impact of community violence on antisocial behaviors for boys. The findings suggest that encouraging altruistic behaviors in boys may be critical in improving outcomes for adolescent males developing in violent ecologies.
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Altruistic Prosocial Behavior as a Protective Factor for African American Adolescents Exposed to Community Violence

Adolescents growing up in communities beset with violence encounter persistent stressors that compound the normative hurdles of the period. Although community violence affects young people of all racial and ethnic groups, African American adolescents in urban areas are disproportionately affected as both witnesses and victims (Jenkins & Bell, 1997). Research demonstrates that exposure to community violence is linked with a host of challenging outcomes for adolescents including aggression and psychological distress (Overstreet, 2000; Wilson, Rosenthal, & Battle, 2007). However, many teens, even with high levels of exposure, have resilient outcomes (Aisenberg & Herrenkohl, 2008; Cunningham, Hurley, Foney, & Hayes, 2002; Luthar, 2006). Engaging in altruistic prosocial behaviors may serve as a protective factor, for teens exposed to violence.

Community Violence Statistics

Many American teenagers are growing up in communities plagued by violence in which losing friends and family to homicide has become commonplace. Every day in 2010 an average of 13 young people were murdered in the United States. Exposure to violence may be thought of as an age-specific risk as youth ages 12-19 are twice as likely as adults to be both victims of violence and to experience the murder of someone close to them (Baum, 2005; Finkelhor, Turner, Ormrod, & Hamby, 2009). In fact, 59% of youth
ages 14-17 report witnessing an assault, while over the course of their lifetime 71% of youth report having been assaulted (Center for Disease Control, 2012; Finkelhor et al., 2009). Further, the type of violence young people are exposed to increases in severity with age, with 14-17 year olds most likely to experience the most serious forms of violence (assault with injury, sexual assault, witnessing homicide) (Child Trends, 2013).

In addition to simply being a teenager, certain socio-demographic variables (e.g., poverty, urban living) increase the chances that one will experience high levels of exposure to violence, especially the death of a loved one (Reese, Vera, & Hasbrouck, 2003).

According to Child Trends (2013), African American adolescents are far more likely to know someone who was murdered than are European American adolescents. In 2010, the homicide rate for African American males ages 15-19 was twenty-one times higher than that of European American males. Although the homicide rate for girls in general is lower than that of boys, African American girls are murdered at a rate three times that of European American boys (Child Trends, 2013). In a study examining the impact of homicide survivorship in a nationally representative sample of teens, Rheingold, Zinzow, Hawkins, Saunders, and Kilpatrick (2012) found that one third of African American adolescents had experienced the death of a loved one to criminal homicide during their lifetime compared to one sixteenth of European American adolescents. These group differences in experiencing, witnessing, and survivorship are most likely associated with differences in where adolescents are raised. For example, more African Americans are raised in low-income and urban communities than European Americans (United States Census, 2010).
Living in an urban area also puts teens at greater risk for experiencing violence (Gorman-Smith, Henry, & Tolan, 2004). In a meta-analysis, Buka, Stichick, Birdthistle, and Earls (2001) found that the percentage of all adolescents witnessing a shooting varied widely across samples (ranging from 4% in an affluent predominately European American sample to 70% in a low-income predominantly African American sample), with differences clearly dependent upon urban living; the lowest prevalence in urban samples was 20%. The geographic area in which the present study takes place mirrors this problem in scope. In Louisiana the home state, of the participants, homicide was the second leading cause of death for all adolescents, and the first leading cause of death for African American boys and girls. In fact, between 2006 and 2010, 948 young people were murdered in Louisiana, 87% of them were African American (Centers for Disease Control, 2012). In the city in which participants lived, there were 193 murders in 2012, a rate ten times higher than the national average. More than one-third of the victims were under the age of 25 (City of New Orleans, 2013)

Outcomes associated with Community Violence Exposure

Exposure to such high levels of violence has been associated with numerous negative outcomes for adolescents and their communities; particularly concerning is the likelihood of youth to engage in violent behavior themselves. Adolescents exposed to violence are more likely to engage in risky (e.g., unprotected sex, high levels of substance use), aggressive, and antisocial behaviors (Brady, Gorman-Smith, Henry, & Tolan, 2008; Gorman-Smith et al., 2004; Jenkins & Bell, 1997; Miller, Wasserman, Neugebauer, Gorman-Smith, & Kamboukos, 1999). In fact, Durant, Cadenhead, Pendergrast, Slavens,
and Linder (1994) found that witnessing and victimization were the strongest predictors of self-reported involvement in fights and weapon-carrying behavior.

There is also a positive relationship between exposure to community violence and internalizing psychological symptoms. Symptoms identified in youth who have witnessed violence include hopelessness, difficulty concentrating (Overstreet, 2000), fears of being harmed by some obscure danger, worries about safety (Martinez & Richters, 1993), somatic complaints, social withdrawal, and posttraumatic stress symptoms (Cooley-Quille, Boyd, Frantz, & Walsh, 2001). Adolescent girls exposed to community violence may be particularly vulnerable to the development of internalizing problems. Several studies have found that girls, but not boys, are more likely to report difficulties concentrating, intrusive thoughts, and feelings of worthlessness and unhappiness (Cooley-Quille et al., 2001; McKelvey, et al., 2011; Martinez & Richters, 1993; White, Bruce, Farrell, & Kliewer, 1998).

While there are abundant examples of challenging outcomes associated with community violence, many youth are resilient despite the challenges intrinsic to such exposure (Aisenberg & Herrenkohl, 2008; Cunningham et al., 2002; Luthar, 2006). Previous research has demonstrated that youth react to violence exposure in different ways depending on a number of variables including parental support (Kliewer, Lepore, Oskin, & Johnson, 1998; Trask-Tate, Cunningham, & Lang-DeGrange, 2010), parental monitoring (Bacchini, Miranda, & Affuso, 2011; Cunningham, Mars, & Burns, 2012; Gorman-Smith & Tolan, 1998), family cohesion and support, school and community support, and neighborhood social cohesion (Sampson, Morenoff, & Gannon-Rowley,
However, these variables, while diverse in their origins, all share the common characteristic of originating outside of the individual.

Conversely, the decision to give of one’s resources and time to help those that are sick, hungry, or otherwise in need is one that is more directly under the control of the adolescent. Although several scholars have pointed out that low-income urban youth generally have fewer opportunities than their more affluent suburban peers to participate in organized volunteer activities (Hart, Atkins, & Ford, 1998; Spencer, Fegley, Harpalani, & Seaton, 2004; Dworkin, Larson, & Hansen, 2003) they may still choose to engage in acts of altruism and caring in unstructured ways such as donating their time or money to those in need in their families and communities. Research in other areas demonstrates that teens and young adults who engage in such behaviors experience a multitude of positive outcomes such as higher levels of well being, feelings of personal competence, and increased feelings of connection. However, research examining how engagement in prosocial activities may serve as a protective or compensatory factor, specifically for adolescents living in communities besieged by violence, is scarce. Therefore, a theoretical framework that allows for understanding how the normative developmental process of adolescence is shaped by risk and protective factors, both contextually dependent and garnered in prior stages, is needed to examine how individuals may realize disparate trajectories and outcomes.

Theoretical Framework

The theoretical model proposed by Spencer (1995, 2006) is helpful in understanding why prosocial behavior in adolescence may be instrumental in producing positive life outcomes for adolescents of color developing in contexts that include high
levels of exposure to community violence. Rather than an exclusive focus on contextual factors, Spencer’s phenomenological variant of ecological systems theory (PVEST) highlights the importance of an individual’s perception of and responses to environmental variables and how these shape future levels of vulnerability (1995, 2006). In so doing the individual takes center stage as the ultimate arbiter of his/her experience and outcomes. By focusing on human development processes, PVEST provides a framework that captures complex issues, systems interactions, and considers how one’s multiple challenges, supports, coping strategies, and emerging identities combine to influence the impact of risk factors, such as ECV, on outcomes.

PVEST is composed of five core elements (see Figure 1) that are cyclical and influence the process of an identity and culturally ecological focused model of development and outcomes throughout the lifespan. The model helps in understanding the interactions between (1) net vulnerability (risk and protective factors combined), (2) net stress engagement, (3) coping strategies, (4) emergent identity, and (5) life-stage outcomes. In doing so, critical developmental markers (e.g., early childhood, middle to late adolescence processes) are incorporated with how students make meaning of their experiences and simultaneously understand themselves.

The first element of PVEST, net vulnerability (1), “…consists of individual, family, and community characteristics that may serve as risk versus protective factors (or both if considered at different developmental periods) during an individual’s development (Spencer, 2006, p. 847) that have the potential to impact outcomes. However, the extant literature too often directly links elements of net vulnerability to life stage outcomes. Instead, a PVEST perspective encourages researchers to consider
processes and pathways between net vulnerability and life stage outcomes. For example, altruistic prosocial behaviors may serve as important protective factors counterbalancing the risk posed by community violence exposure and thus reduce an individual’s net vulnerability. The second element of PVEST, net stress engagement (2) describes risks that are actually encountered in the environment. “In contrast to risk factors referred to in the vulnerability level, stressors are actualized risks encountered that require some level of response because they are experienced as specific challenges” (Spencer, p. 848). Although ECV poses considerable challenges to adolescents, individuals have a diversity of social supports available that can help in the negotiation of stressors. For example, youth who engage in prosocial activities may develop a wider network of social supports in the form of positive adult mentors, positive peers, and valuable community connections which may play a pivotal role in the negotiation of stressors such as community violence.

The third element of PVEST, reactive coping strategies (3), acknowledges that youth manage stressful experiences through unique problem solving approaches that may be adaptive or maladaptive. For example, youth exposed to chronic violence may negotiate stressors through increased aggression, hypervigilance, problem avoidance, or rumination. Conversely, youth who engage in prosocial activities may approach stress negotiation and problem solving through behaviors that increase social connectedness and improve community conditions. Over time, coping strategies that have allowed individuals to preserve ego-integrity and the physical self become a common feature of the adolescent’s toolkit to which they return over and over.
Eventually these stable responses become a critical component of identity and inform the way in which individuals see themselves and are seen by others in multiple contexts. For example, adolescents who behave altruistically, may come to be perceived as a responsible, competent, and caring individuals by their community which may open up new opportunities and supports in the environment. This “environmental feedback concerning a successful impact on the environment has implications for subsequent efforts expended” (Spencer, 2006, p. 845). Environmental feedback and individual perceptions influence self-evaluation and meaning-making processes. Individuals internalize norms associated with coping strategies that produce positive self-evaluations thus further cementing an adaptive or maladaptive identity. These emerging identities then lay the groundwork for future behavioral responses, self-concept, and life stage outcomes. Importantly, because the model is recursive it allows researchers to conceptualize ways in which volitional history and a history of effective coping strategies, such as engaging in prosocial behaviors, may become protective factors and impact life course competence and development as individuals navigate a variety of challenges (Spencer, p. 837).

In summary, PVEST helps to clarify how youth exposed to violence may experience diverse developmental trajectories contingent upon various protective factors. Specifically, youth who engage in prosocial behaviors may be protected from the known adverse effects of community violence because their actions in prior developmental stages tended to increase their access to social support, encouraged the use of adaptive problem-solving strategies, and fostered the development of prosocial identities and thereby generated more positive outcomes such as greater well-being, confidence, and
self-esteem. Prosocial behavior is therefore conceptualized as a protective factor garnered from “an individual’s personal history of productive coping during a prior period of stage specific outcomes” (Spencer, 2006, p. 830).

It must be noted that a central, though untested, premise of this thesis is that prosocial behaviors are a result of interactions between “structural factors, personal factors, and bidirectional interactions with others, and a myriad of daily life experiences that impact individual vulnerability. The perceptions and patterned responses occur as individuals confront normative developmental tasks while navigating countless contexts in pursuit of demonstrating competence” (Spencer, p. 842). These interactions, resultant behaviors, and potentially adaptive outcomes, although highly dependent upon the volition of the individual, do not occur within a vacuum. Though this study attempts to isolate prosocial behaviors as a cumulative protective factor in their own right, the research questions and hypotheses examined in no way intimate that these behaviors are the result of purely innate or contextually independent factors. Instead, the argument is made, that whatever the origin, engaging in behaviors to advance the welfare of others, protects against maladaptive outcomes in adolescents exposed to risk factors, in this particular case, the well-documented risk factor of community violence. Further, although the theoretical framework suggests the hypotheses proposed are a result of cumulative behaviors, the data analyzed in this study are cross sectional. Thus, the assumption is made that participants’ self-reported behavior is reflective of a pattern that has accrued over time.
Literature Review

Using PVERT as the conceptual framework, the thesis examines the relations between exposure to community violence and mental health outcomes in African American adolescents, with altruistic prosocial behavior as a moderating variable. The model is proposed based on literature that demonstrates how exposure to community violence has been linked to aggressive behavior and psychological distress in adolescents (Overstreet, 2000; Wilson et al., 2007). There is also literature demonstrating the positive impact of altruistic prosocial behavior on adaptive outcomes (Bowman, Brandenberger, Lapsley, Hill, & Quaranto, 2010). However, this literature suffers from two major methodological deficiencies: problems with measurement and lack of sample diversity. Existing literature also suggests gender differences in both outcomes and in levels of prosocial behavior (Beutel & Johnson, 2004; Eisenberg, Miller, Shell, McAlley, & Shea, 1991; McMahon, Wernsman, & Parnes, 2006; Roberts & Strayer, 1996). Each of these concepts is discussed in more detail in the following sections. This study includes work that has been conducted both in samples from United States and internationally. In most cases I have maintained the authors’ use of terms that identify the ethnic makeup of their participants. I refer to participants in my sample as African American, although they may have identified themselves as either “Black” or “African American”.

Outcomes associated with exposure to community violence.

As discussed previously, African American adolescents are exposed to community violence at alarming rates. Chronic exposure has been linked, across culture and contexts, to numerous maladaptive coping strategies (Rosenthal & Wilson, 2006; Salzinger, Rosario, Feldman, & Ng-Mak, 2008; Slovak & Singer, 2002; Sullivan, Kung,
& Farrell, 2004). Youth exposed to high levels of community violence may feel continually at risk in an environment that seems unpredictable and dangerous (Foster, Kuperminc, & Price, 2004). Although there are protective factors that may buffer the effects of community violence, those factors do not protect children from increased rates of exposure. For example, traditional supports such as family warmth, cohesion, and structure were found to have no effect on a youth’s level of exposure (Gorman-Smith & Tolan, 1998). Further, youth do not have to be direct victims to be impacted; hearing about and witnessing violence are also associated with externalizing and internalizing problems (Purugganan, Stein, Johnson Silver, & Benenson, 2003).

**Antisocial Behavior**

A wealth of studies has linked exposure to community violence to antisocial and aggressive behaviors in youth. Even relatively low levels of exposure may increase aggressive behavior (Bradshaw, Rodgers, Ghandour, & Garbarino, 2009). Further, adolescents exposed to high levels of violence exhibit aggressive behaviors in multiple settings including neighborhood, school, and home (Benhorin & McMahon, 2008). In a sample of urban African American middle school students, more violence exposure was directly related to more aggressive behavior and higher endorsement of retaliatory beliefs supporting aggression which led to less confidence in one’s ability to control anger in high conflict situations (McMahon, Felix, Halpert, & Petropoulos, 2009). Similarly, in a study of children and adolescents from diverse communities in and around Bogata, Columbia, Chaux, Arboleda, and Rincon (2012) found that youth with more exposure reported higher levels of both proactive and reactive aggressive behavior and endorsed more beliefs legitimizing the use of violence than youth with less exposure. Barkin,
Krieter, and Durant (2001) report that exposure to violence also predicts a youths’ *intention* to engage in “moralistic violence” or violence in response to a perceived injustice. Youth who engage in “moralistic violence” view their actions as appropriate responses to a situation. In a study that examined the relations among lifetime exposure to violence in a sample of African American 6\textsuperscript{th} grade boys and girls ($N = 702$), Barkin et al., (2001) found that for both boys and girls, levels of violence exposure was the strongest correlate of intention to use violence in a hypothetical situation that could result in conflict.

Although most research examining the relationship between exposure and aggression has used urban and ethnic minority samples, recent work with White suburban teens has produced similar results. For example, Bradshaw, Goldweber, and Garbarino (2013) found that predominately White American teens in a supposed “low-risk” environment were exposed to similar rates of milder forms of violence (seeing someone get beat up, seeing a drug deal, seeing someone get arrested) as urban youth and that rates of such exposure were significantly related to higher rates of self-reported aggression. Several investigators have found that factors traditionally thought of as protective, such as family support, organization, and intolerance of antisocial beliefs do not attenuate the relationship between ECV and antisocial behavior (Gorman-Smith & Tolan, 1998; Miller et al., 1999). Instead for adolescents from families with high structure (organized, supportive, and intolerant of antisocial values), exposure to community violence predicted *increases* in antisocial and aggressive behaviors (Gorman-Smith & Tolan, 1998; Miller et al., 1999).

*Pathways to Antisocial Behavior*
Researchers have suggested a number of mechanisms that link ECV to antisocial and aggressive behaviors. McMahon et al. (2009) suggest that repeated exposure to violent interactions in the community promotes normative beliefs about aggression such that adolescents with high exposure come to see violence as an acceptable way to solve problems. However, this pathway may be disrupted for teens that engage in high levels of prosocial behavior. Highly prosocial teens may report higher levels of self-efficacy, which, in a sample of urban African American middle school students, reduced retaliatory beliefs and aggressive behavior (McMahon et al., 2009). Further, teens who engage in many acts of prosocial behavior may be less likely to associate with peers who behave violently, thus reducing their perception of aggression as normative (Carlo et al., 2014).

Sociocontextual variables may also play a role in increased aggression. Studies show that mothers in high-risk neighborhoods are more likely to support aggressive behavior in their teenage children, especially their sons, as a form of self-defense (Busby, Lambert, & Ialongo, 2013; Dodge, Pettit, & Bates, 1994). Youth themselves report using violence as self-protection not only in the immediate context (Johnson, Frattaroli, Pearson-Fields, & Cheng, 2004), but also in establishing a tough identity across settings aimed at making them less vulnerable to victimization (Anderson, 2002). However, several studies have found that the adoption of such an identity directly increases one's chance of violence exposure (Salzinger, Ng-Mak, Feldman, Kam, & Rosario, 2006; Stewart, Schreck, & Simons, 2006) while simultaneously decreasing self-esteem and perceptions of self-efficacy, thus contributing to symptoms of anxiety and depression (Salzinger et al., 2008). This pathway may be disrupted in several ways. In addition to greater self-efficacy, teens that routinely help others are also likely to develop a prosocial
identity; participating in aggressive or antisocial behavior would violate this identity and produce cognitive dissonance, making such behaviors less likely even in teens that have been exposed to high levels of community violence. Additionally, parents may feel that it is less necessary to promote a tough identity in a highly altruistic teen as they may come to see their child as competent, responsible, and well connected within the community.

Psychological Distress

Although the relationship is less robust, high levels of violence exposure have also been found to predict higher levels of psychological outcomes including depression, anxiety, dissociation, and feelings of hopelessness. This relationship remains strong even when controlling for other adverse life events (Gorman-Smith & Tolan, 1998; Kliwer et al., 1998; Singer, Anglin, Song, & Lunghofer, 1995). In a cross-cultural and cross-national survey, boys and girls, young and old, immigrant and native all reported similar levels of psychological distress even at varying levels of exposure (Rosenthal & Wilson, 2006). In another comparative study considering potential contextual protective variables neither gender, ethnicity, nor educational status (e.g., elite high school or job corps) demonstrated any statistically significant power as a buffer against psychological distress resulting from ECV (Wilson et al., 2007). Similarly, in an urban sample ($N = 263$) of African American middle school students, Li, Nussbaum, and Richards (2007) found that for young adolescents with high community violence exposure, family support was actually predictive of internalizing symptoms. Exposure to community violence also appears to have an increasingly deleterious impact on internalizing symptoms over time. For example, boys and girls who were either witnesses or victims of violence in the first year of middle school evidenced worsening of self-reported symptoms of anxiety and
depression in seventh and eighth grades (Salzinger et al., 2008). Although the vast majority of work examining these relationships comes from urban populations, several studies have demonstrated similar effects for rural and suburban youth (Slovak & Singer, 2002; Gladstein, Rusonis, & Heald, 1992).

Pathways to Psychological Distress

Again, researchers have theorized a number of pathways leading from ECV to negative psychological symptoms. Kliewer et al., (1998) suggest that teens, unlike adults exposed to violence, are less likely to discuss traumatic events in order to avoid negative social reactions and that they may have more trouble articulating trauma related thoughts (Fowler & Braciszewski, 2009). Lynch and Cicchetti (1998) suggest that adolescents who have developed in a chronically stressful environment may feel powerless, fearful, and hopeless which is instrumental in the development of anxiety and depression. Other researchers suggest that the relation between ECV and internalizing symptoms may be mediated by other factors. The hyperarousal that follows exposure to violence may trigger a trauma reaction in which the individual engages in beliefs of self-blame. For example, Mazza and Reynolds (1999) found that the relationship between ECV and depressive symptomology could be almost entirely accounted for by PTSD symptoms.

This pathway may be disrupted in several ways. Several studies related to post-traumatic growth in various populations suggest that behaving prosocially reduces symptoms of psychological distress, specifically anxiety. In general these studies suggest that prosocial behavior improves symptoms because it increases feelings of community connection (Frazier et al., 2013), social support (Haroz, Murray, Bolton, Betancourt & Bass, 2013), and feelings of confidence and competence (Bulanda & McCrea, 2013) all
of which are crucial to cultivating a sense of agency and competence (American Psychological Association, 2008; Lerner, Dowling, & Andersen, 2003) and therefore in reducing a sense of hopelessness that is often associated with trauma exposure.

Resilience in the Face of Violence Exposure

Despite these robust relationships, not all teens exposed to high levels of community violence exhibit externalizing or internalizing problems (Gorman-Smith & Tolan, 1998). In fact, the vast majority of teen witnesses, victims, and homicide survivors go on to become confident and caring adults (Benard, 2004; Werner & Smith, 2001). Studies of resilience can help understand how, when faced with adversity individuals can adapt successfully and evidence positive outcomes. Resilience literature suggests the presence of moderators that help buffer or protect an individual against the negative outcomes associated with community violence (Luthar, 2006; Luthar, Cicchetti, & Becker, 2000). Past research has examined a number of protective factors such as family cohesion, parental support and monitoring, school support, neighborhood cohesion, IQ, and ego-resiliency that attenuate the negative impact of community violence (Breslau, Lucia, & Alvarado, 2006; LeBlanc, Self-Brown, Shephard, & Kelley, 2011; Li, Nussbaum, & Richards, 2007; Masten, Best, & Garmezy, 1990). However, this work has produced complicated results in which negative outcomes are reduced differentially across settings and individuals (e.g., the factor is protective in school, but not in the neighborhood, or protective for victims but not witnesses, Benhorin & McMahon, 2008; Bacchini et al., 2011). Further, because these variables are structural and personality based, an individual teen has little immediate control over them.
In the absence of protective factors, teens exposed to violence may adopt a tough identity, use violence to problem solve, or ruminate as a way to cope with their environment. If these strategies help the individual manage immediate challenges, they persist and become stable coping responses, which, if left unchecked, may manifest in unproductive outcomes such as antisocial behavior or psychological distress. Therefore, identifying protective factors, which encourage adaptive coping strategies and that teens have the capacity to cultivate themselves, is crucial for disrupting the link between ECV and unproductive outcomes. Work examining the benefits associated with prosocial behavior indicates that it may function as such a moderator.

*Prosocial Behavior*

Although prosocial behavior is a promising potential moderator for violence exposed teens, the extant literature on the outcomes associated with it suffers from two major methodological deficiencies: (1) problems with precise measurement and (2) lack of sample diversity. The present study addresses both of these matters. Because most prior research examines prosocial behavior as a global construct that more accurately measures social competence (e.g., cooperation, compliance with authority/social norms, emergency responses), and because such measurement may be of limited use in approaching specific theoretical questions concerning the outcomes associated with prosocial behaviors (Carlo & Randall, 2002), the current study specifically examines what Carlo and Randall (2002) have categorized as “altruistic prosocial behaviors”. Altruistic prosocial behaviors are behaviors that are intended to benefit others with no expectation of reward. This more precise definition was selected because altruistic behaviors are, to a greater extent than other types of prosocial behaviors (e.g., compliant,
public, emotional), more frequently and significantly associated with actions and personal qualities that may reduce psychological distress and aggression (e.g., better than average social skills, perspective-taking ability, and moral reasoning), even in the face of high levels of exposure to community violence (Carlo et al., 2014). A second shortcoming, lack of sample diversity, makes it difficult to draw conclusions concerning potential differences in understudied populations. Even so, the preponderance of findings concerning positive outcomes in White samples strongly suggests that altruistic prosocial behavior could buffer the impact of ECV.

**Outcomes Associated with Prosocial Behavior**

The connection between engaging in altruistic prosocial behavior and a wide range of physical and mental health benefits is well established in predominately White populations. For example, altruistic behaviors in older adults have been associated with lower mortality, fewer symptoms of anxiety, depression, and somatization, increased life satisfaction and increased positive affect (Dullin & Hill, 2003; Huner & Linn, 1981; Musik et al., 1999; Musick & Wilson, 2003; Krueger et al., 2001). Similarly, there is a substantial body of work with children and adolescents which supports the idea that general prosocial behaviors promote positive outcomes such as increased well-being, life satisfaction (Bowman et al., 2010), feelings of increased social integration (Froh, Bono, & Emmons, 2010; Lawford, Pratt, Hunsberger, & Pancer, 2005), higher grade point averages, lower rates of substance use and higher rates of college attendance (Eccles & Barber, 1999; Schmidt, Shumow, & Kackar, 2012). Other studies demonstrate physical health benefits including improved diet and exercise, adequate sleep, increased seat belt use and lower rates of cigarette smoking (Call et al., 2002; Jessor, Turbin, Costa, 1998).
It is worth noting however, that the measures used to assess prosocial behavior varied widely from study to study (e.g., attending church and volunteering (Eccles & Barber, 1999), time spent in family activities, volunteer activities, and school clubs other than sports (Jessor et al., 1998)).

Participants in the current study are all African American adolescents, a population whose experiences and outcomes have rarely been examined in prosocial literature, and to the author’s knowledge, never with the definition utilized here. The few studies that do examine prosocial behaviors specifically in African American or violence-exposed teens, seem to suggest that, at least in its general form, prosocial behavior, acts as an important buffer for teens exposed to challenging situations. The well-established benefits found in White samples, combined with the theoretical underpinnings of PVEST (specifically the process of identity development) and the emerging results in understudied populations (ethnic minority and trauma exposed) reviewed below, provide a compelling reason to examine the role of altruism in African American adolescents exposed to community violence.

*Exemplar Studies*

A recent qualitative study that investigated the impact of a leadership development program (i.e., Stand Up Stand Out) for African American adolescent boys (ages 14 – 16) illustrates the potential of altruism to transform outcomes. Bulanda and McCrea (2013) found that one activity, mentoring, was consistently given the highest positive endorsement among participants. The study took place in a large urban area in which rates of violent crime were three times the national average (Department of Justice, 2010). In fact, all 32 participants had either witnessed a homicide or had a family
member murdered. All participants lived in high poverty neighborhoods and 50 percent were separated from their biological parents. A wide range of activities (e.g., college tours, anger management courses, job interview skills, counseling, mentoring) were evaluated for both youth enjoyment and *constructive relatedness*, a concept defined by the authors as “feeling connected to peers and the community” and being “motivated by a sense of caring and compassion”. In interviews, these teens pointed to their mentoring relationship with elementary age children as the most transformative and enjoyable part of the program. The activities that the teens engaged in with their mentees (planning games, managing disputes through positive discipline, and tutoring) may be thought of as conceptually similar to altruistic prosocial behavior. The authors suggest that it was through the engagement in “caring activities” within these relationships that the participants experienced a transformation of their own capacity to care and that this increased confidence, connection, and feelings of autonomy, all of which are attributes that have been associated with decreases in psychological distress and aggressive behaviors (American Psychological Association, 2008; Frazier et al., 2013; Lerner et al., 2003).

The power of prosocial behaviors to decrease symptoms of psychological distress was dramatically demonstrated in a six-month longitudinal study with 102 Ugandan teenage girls and boys, a highly symptomatic population that continued to experience many adverse life events over the course of the study ($M_{age} = 15$ years, 58% female) (Haroz, Murray, Bolton, Betancourt, & Bass, 2013). All participants were living in an Internally Displaced Persons’ camp and 39% had a history of abduction by the Lord’s Resistance Army, a Christian extremist militant group notorious for forcing children to
become rebel fighters. All participants met criteria for a locally developed measure of depression and anxiety symptoms and continued to experience many adverse life events over the course of the study. Participants were part of a larger RCT study in which they were assigned to a wait-list control and received no therapy while the two other groups received a creative play or psychotherapy intervention. Symptoms of psychological distress, prosocial behavior (caregiver report), and perceived social support (self-report) were measured at baseline and then again, six months later. Youth who showed the greatest improvement of depression and anxiety symptoms from baseline were also the youth who engaged in the highest levels of prosocial behaviors. Surprisingly, perceived social support did not have a similar impact. Although the measure used to assess prosocial behaviors combined items that represent distinct forms of prosocial behavior (compliance, cooperation, and altruism) the results nonetheless lend support to the hypothesis that altruistic behavior may be protective even in the most challenging environments.

A series of studies examining the impact of a national school based program that involves high school students in volunteer activities in their neighborhoods also suggests that when teens are involved in “help-giving” rather than “help-receiving” they experience numerous benefits including decreased rates of teen pregnancy, school suspensions for problem behavior, and academic course failure (Allen, Kupperminc, Philliber, & Herre, 1994; Allen & Philliber, 2001). Participants in the study were ethnically and geographically diverse ($N = 3,277$, 44% Black, 37% White 15% Hispanic; from 60 different program sites), over half came from single parent households, more than a third had experienced academic course failure, and one-fifth had been previously
suspended or expelled from school. Results indicated that quality of volunteer experience was the most important variable in predicting higher feelings of competence and autonomy and lower levels of all problem behaviors. These benefits were most pronounced for African American and Hispanic teens and students who were most at-risk for antisocial outcomes (e.g., those who had problem behaviors prior to program participation). Although the altruistic behavior in these studies was not initiated by the teens themselves, and although data concerning aggression and internalizing behaviors was not reported, the pattern of association, *helping behavior decreases problem behavior*, provides further support for the conjecture that altruism may attenuate levels of unproductive outcomes for teens.

Unfortunately, none of these studies examined gender differences in either rates or outcomes of prosocial behavior. This is a serious shortcoming as work with predominately White samples consistently demonstrates higher rates of prosocial behavior for girls. If the literature examining prosocial behavior in African American teens is sparse, the work examining gender differences within the population is nearly non-existent. In fact, a review of the literature produced only two studies in which the role of gender in relation to prosociality is explored in African American teens. These studies, reviewed below, both with middle school students found gender differences in patterns of prosocial behavior distinct from those associated with White samples.

In a study conducted with urban African American early adolescents (*N* = 789, *M*<sub>age</sub> = 12.69, SD = 1.08), Belgrave et al. (2011), found that profiles that predicted prosocial behaviors were quite similar for boys and girls. For both genders, a “well-adjusted” profile (above average anger management and ethnic identity, below average
acceptance of aggression, and average to above average empathy) predicted levels of prosocial behavior. Although not examined specifically as a protective factor, prosocial behavior was associated with the lowest rates of physical and relational aggression. These findings hint that gender and prosocial behavior may follow unique patterns in African American populations and provide additional support for the premise that prosocial behaviors could serve to reduce negative behaviors.

In a study with 150 African American middle school students living in a low-income community (64% female), McMahon et al. (2006), used gender and self-reported empathy (a variable highly correlated to altruism) to predict teacher reported prosocial behavior. As expected, older students and students with higher levels of empathy were rated as behaving more prosocially by their teachers. However, in stark contrast to results from similar studies in White populations, teachers reported more prosocial behavior for the boys in this sample. In this study, empathy was significantly associated with prosocial behavior for boys but not for girls. That is at low levels of empathy, boys and girls were similar in their rates of prosocial behavior; at high levels, boys were rated as behaving more prosocially than girls. Although the author’s measurement of prosocial behavior did not assess specifically for the altruistic form of prosocial behavior, the results of this study further suggest that gender differences should be explored in ethnically diverse populations.

The Current Study

Proposed Model

As indicated in Figure 2, this study examines relations between exposure to community violence, prosocial behaviors, and negative mental health outcomes.
Specifically the model examines engagement in prosocial behaviors as a moderating variable in the relationship between exposure to community violence and antisocial behaviors and psychological distress. Within the PVEST framework, exposure to community violence is considered a risk factor that is associated with an individual’s net vulnerability and predisposes one to adverse outcomes such as antisocial behaviors and psychological distress. Conversely, prosocial behaviors are conceptualized as “second round” protective factors, garnered from an individual’s personal history of productive coping during a prior period of stage specific outcomes (Spencer, 2006) that decrease an individual’s net vulnerability and stress engagement, lead to further adaptive coping strategies that promote personal and interpersonal competence, increase self-acceptance and therefore lead to fewer instances of both antisocial behaviors and psychological distress.

Hypotheses

The study has several hypotheses.

• Hypothesis (1) Exposure to community violence will have a statistically significant association with mental health outcomes for all participants. Specifically, there will be positive statistically significant relation between ECV and antisocial behavior and psychological distress respectively. These relations will differ by gender, that is, boys will demonstrate higher levels of antisocial behavior and girls will demonstrate higher levels of psychological distress.

• Hypothesis (2) Prosocial behavior will have a statistically significant relation with mental health outcomes for all participants. Specifically, there will be an inverse statistically significant relation between ECV and antisocial behavior and
psychological distress respectively. Based on the limited work specifically examining the intersection of gender and prosociality in African American adolescents, boys and girls will display similar levels of altruistic prosocial behavior.

- Hypothesis (3). Exposure to community violence will be less strongly associated with negative mental health outcomes (e.g., antisocial behavior & psychological distress), for students who report high levels of altruistic prosocial behavior, as compared to students who report low altruistic prosocial behavior, specifically among male participants.

Methods

Participants

A total of 207 African American high school students (66% female) took part in the study. The mean age of participants was 15.78 years (range 13 – 19; SD = 1.19) and each grade was well-represented (9th grade 22%, 10th grade 25%, 11th grade 27%, and 12th grade 26%). The students resided in a large urban city, and their school day was split between two schools: they attended a public high school focusing on science and math for one half of the school day and the remainder of the day was spent at the public high school of their district. Approximately 50% of the participants resided in single-parent (mother-headed) families. The students were characterized as “working poor” (Slaughter-Defoe, 1997) or low-resource families because, according to school records, 90% of the students in the school qualified for free or reduced lunch programs. Qualification in the free or reduced lunch program was based on the household income level of the student.
that varied according to the number of people living in the household (Louisiana Department of Education: Planning, Analysis, and Information Resources, 2006).

Although the students lived in families that had economic challenges, they attended a center with a history of producing academically resilient graduates. The students were given more intensive instruction in the academic areas of science and math than was offered at their home high schools. Although there was no test to gain admittance to the center, personal interviews were conducted by the center’s teachers with each prospective student. The teachers determined acceptance based on the interview. The students, male and female, who attended this center, were considered high achieving. These students were considered high achieving not only because of their decision to attend the math and science center but also due to their performance on the state graduation exit exam. According to school records, 93% of the graduating students passed the exit exam in the 12th grade. This is in stark contrast to the disappointing performance of other area public schools. In 2002, the unsatisfactory rate on the state high school exit exam was at 50% and 67% in English and math, respectively (Thevenot, 2003). The 2003 results for the school district on the exit exam required for high school graduation were similarly disappointing with ratings of 59% unsatisfactory in English and 56% unsatisfactory in math.

Procedure

Participants were part of a larger study that examined the everyday experiences of urban male and female teenagers. The students and their guardians signed adolescent assent and parental informed consent forms, respectively, and they were told their responses would be kept private. The surveys were dispersed in small groups of students
in a large meeting area at a math and science center. The surveys included additional measures not included in this report, and participants took approximately one hour to complete it. At least one African American graduate student experimenter was present at all times. Each student participant completed a self-reported questionnaire. The participants did not discuss responses with one another. Participants were given $5.00 upon final completion of the study.

Measures

All of the constructs are listed in appendices and described below beginning with the independent variable, exposure to community violence, followed by the moderator, altruistic prosocial behavior, the outcome variables, antisocial behavior and psychological distress, and finally the control variables age, participation in extracurricular activities and church attendance. To examine gender differences student self-report was used. The students checked either “female” or “male”. Female is coded as “1” and male is coded as “0.”

To examine exposure to community violence (see Appendix A), a revised version of Coddington’s Life Events Questionnaire (LEQ; Coddington, 1972) was used. The original LEQ, which included 61 items and was designed to measure events in a child’s life over the last year, was altered in order and language to accommodate additional items that reflect events commonly experienced in high-risk neighborhoods (McDermott & Spencer, 1995). For the present study four items from the LEQ that are similar to items from the Screening Survey of Exposure to Violence scale (Richters, 1990) are used, they are: “One or two people you knew were killed”, “You were victimized”, “You were personally victimized.”, and “The police or detectives broke into your home”. If the event
occurred, it was coded “1” and if it did not occur it was coded as “0”. Responses were summed, so the possible range is from 0-4.

The *prosocial behavior* construct (see Appendix B) is comprised of three questions on a five point Likert scale format. Items measure participant’s self-reported involvement in prosocial behavior. Although previous research has frequently used teacher, parent, or peer report to measure frequency of prosocial behavior, adolescent self-report is most consistent with the theoretical framework utilized in the proposed study. Additionally, commonly used measures of prosocial behavior often include items that either represent behaviors that are not consistent with the definition of this study (cooperation, compliance) or that assess motivation, tendencies, or beliefs rather than actions truly carried out. Questions include; how often have you “Been involved in a project to make life better for others”, “Given money or time to an organization that helps others” and “Spent time helping people who are poor, hungry, sick, or cannot take care of themselves”. Responses range from 1 (the minimum) to 5 (the maximum) with higher scores indicating high levels of prosocial behavior. Participants rated each item on a scale of 1 to 5 (*1 = never, 2 = once, 3 = 2 or 3 times, 4 = 3 or 4 times, 5 = 5 or more times*). Responses were summed and then divided by three, so the possible range is from 1-5. The Cronbach’s alpha for the construct was .74.

The *antisocial behavior* construct (see Appendix C) was measured using six questions in a five point Likert scale format. Responses ranged from 1 (the minimum) to 5 (the maximum). Four of the questions were related to aggressive behavior (hit or beat someone up, hurt someone badly enough to need bandages or go to the hospital), one question was about damage to property, and the last about stealing. These items are
similar to the delinquent-type behavior subscale of the Multiple Problem Behavior Index (MPBI), a well-established measure that includes self-reports of physical aggression, vandalism, and theft (Jessor, Van Den Bos, Vanderryn, Costa, & Turbin, 1995). Responses were summed and then divided by six, so the possible range is from 1-5. The Cronbach’s alpha for the construct was .61.

The Psychological distress construct (see Appendix D) consisted of twelve items of symptoms of psychological distress from the questionnaire. Items measure participants’ self-report of depressive symptom such as anhedonia, feelings of hopelessness, and frequency of worry. Participants rated each item on a scale from 1 to 5 (1 = strongly agree, 2 = agree, 3 = not sure, 4 = disagree, 5 = strongly disagree), with higher scores indicating higher levels of psychological distress. Sample items include, “My family life is happy” (reverse coded) and “At times, I think I am no good at all.” Items are similar to those in Beck’s Children’s Depression Inventory (CDI), a well-established measure of depression in children (Nelson, Politano, Finch, Wendel, & Mayhall, 1987). Responses were summed and then divided by twelve, so the possible range is from 1-5. The Cronbach’s alpha for the construct was .82.

Control variables

Age was measured using self-report data. The students checked their numerical age (given the range 13 – 19) on the demographic portion of the survey.

The extracurricular participation construct (see Appendix E) is comprised of four questions on a five point Likert scale format. Items measure participant’s self-reported involvement in extracurricular activities, questions include: during an average week, how many hours do you spend “in band, choir, music lessons or practicing voice or an
instrument”, “playing sports on a school team”, “in clubs or organizations at school (other than sports)”, “in clubs or organizations outside of school”. Response options; 1 = 0 hours, 2 = 1-2 hours, 3 = 3-5 hours, 4 = 6-11 hours, 5 = more than 11 hours per week. Responses were summed and then divided by four, so the possible range is from 1 - 5

Church attendance was measured with a single question. Students answered the question, “How often do you attend religious services at a church or a synagogue”. Responses ranged from never to about once a week or more (1 = never, 2 = rarely, 3 = once or twice a month, 4 = about once a week or more).

Results

The results are presented in several sections. Descriptive data and overall mean responses to the subscales are presented first. Next, correlation analyses are presented followed by the results of regression analyses pertaining to the study’s hypotheses. A probability level of .05 was selected for all statistical significance tests.

The data were examined for missing data prior to analysis. The pattern of missing data was random; so missing data were replaced with mean variable scores. This method was only used for three participants who were missing no more than one score on any construct. Descriptive statistics for all study variables and correlations between study variables are presented in Table 1. Participants in this sample varied in their rates of violence exposure. Some participants, 54%, did not report exposure to any of the violent events assessed, while 35% report knowing one or two people who were killed and 7% report three or more people they knew were killed and 13% report being personally victimized. Violence exposure scores ranged from 0 (no events) to 3 (students experienced 3 or more serious acts of community violence) (M = .59 SD = .74) with no
statistically significant sex differences (see Table 2). Students in this sample generally reported relatively low levels of psychological distress ($M = 1.83, SD = .58$) and antisocial behaviors ($M = 1.28, SD = .44$). In partial support of hypothesis 1, exposure to community violence was associated with increases in antisocial behavior ($r = .23, p < .01$). Exposure to community violence did not have a statistically significant relation with psychological distress, but approached trend level in the expected direction ($r = .11, p < .10$) (See Table 1). Contrary to previous literature and hypothesis 1, girls did not report significantly more symptoms of psychological distress than boys (see Table 2). However, as predicted in hypothesis 1, and consistent with previous literature, boys did report significantly more antisocial behaviors than girls (see Table 2).

Many participants reported high rates of altruistic behavior ($M = 2.59, SD = 1.16$) (see Table 2). Reports of altruistic behaviors ranged from 1 to 5, with 38% reporting having engaged in 3 or more acts of giving over the last year. Nineteen percent of the sample reported that they had given money or time to a charity five or more times within the last year. In support of hypothesis 2, these behaviors were significantly associated with a decrease in both antisocial behavior ($r = -.15, p < .05$) and psychological distress ($r = -.16, p < .05$) (See Table 1). In contrast to previous work with predominately White samples, and as predicted in hypothesis 2, boys and girls in this study reported remarkably similar levels of altruistic behavior ($M = 2.50, SD = 1.14; M = 2.63, SD = 1.17$, respectively)

Correlational analyses were conducted with other variables potentially associated with prosocial behavior. Older teens were significantly more likely to report engaging in altruistic behaviors ($r = .16, p < .05$) and boys were more likely to report engaging in
antisocial behaviors ($r = -0.28, p < 0.01$). Additionally, correlation analyses were conducted with church attendance and extracurricular activity as these variables have been conceptualized as prosocial behavior in past literature (Eccles & Barber, 1999; Marsh, 1992). Involvement in extracurricular activities was positively and significantly related to altruistic prosocial behavior ($r = 0.41, p < 0.01$), but there were no statistically significant correlations with any of the other study variables. Church attendance was negatively related to antisocial behaviors ($r = -0.19, p < 0.01$), but not to any other study variables.

Hierarchical regression analyses were conducted to examine the association between exposure to community violence and mental health outcomes (e.g., antisocial behavior & psychological distress) and if altruistic prosocial behavior moderates this relation differently for boys and girls. The predictor and control variables were centered.

The first regression analysis examined antisocial behavior as the outcome variable. In the first step, age, extracurricular participation, and church attendance were entered as control variables because the constructs had statistically significant associations with either prosocial behaviors (age & extracurricular participation) or antisocial behavior (church attendance) and the relation of these variables are well established in the literature (Ball, Armistead, & Austin, 2003; McMahon, Singh, Garner, & Benhorin, 2004; Zaff, Moore, Papillo, & Williams, 2003). The main effects of ECV and altruistic prosocial behavior were entered in the second step. The interaction of altruistic prosocial behavior and ECV was entered in the third step, and finally, the three-way interaction of altruistic prosocial behavior, ECV, and sex were entered in the fourth step.

As indicated in Table 3, the overall model was statistically significant, $F(10, 195)$
= 7.242, \( p < .001 \) (see Table 3). Consistent with the correlation results and in support of previous literature, the main effects of altruistic prosocial behavior and ECV were statistically significant (\( \beta = -.15, p < .05 \), \( \beta = .20, p < .01 \), respectively). Additionally, the main effect of sex had a statistically significant contribution to the model (\( \beta = -.25, p < .001 \)). That is, boys reported significantly more antisocial behavior than girls. These three variables accounted for 13% of the variance in antisocial behavior. The standardized beta weights for all two-way interactions between altruistic prosocial behavior and ECV were also statistically significant (see Table 3) explaining an additional 9% of the variance. Further the standardized beta weight for the three-way interaction of sex, altruistic prosocial behaviors, and ECV was statistically significant, \( \beta = .19, p < .05 \), explaining an additional 2% of the variance.

For a clearer understanding of these patterns, a simple slope analysis was conducted (Aiken & West, 1991) and slope differences were calculated (Dawson & Richter, 2006). A test of simple slopes indicated that for boys, high levels of altruistic prosocial behavior were not associated with an increase in antisocial behavior even as exposure to community violence increased (\( \beta = .03, p = \text{n.s.} \)), but low levels of altruistic behavior (i.e. one standard deviation below the means) were significantly related to increases in antisocial behavior as exposure to community violence increased (\( \beta = .48, p < .001 \)) (See Figure 3). Further, these two slopes differed significantly from each other (\( t(206) = -2.88, p < .001 \)) (See Figure 3). As indicated in Figure 3, the slopes for girls with high altruistic prosocial behavior and low altruistic prosocial behavior were not significantly different from each other (\( t(206) = -1.32, p < .20 \)). For girls, high levels of altruistic prosocial behavior did not significantly impact levels of antisocial behavior at
any level of community violence (See Figure 3). Taken together these results indicate that altruistic prosocial behavior is particularly important for boys in attenuating the relation between exposure to community violence and antisocial behavior.

The second regression analysis examined psychological distress as the outcome variable. The procedure was identical to the analysis described above, but the overall model was not statistically significant $F(10, 199) = 1.453, p = \text{n.s.}$ (see Table 4.) In fact, the only statistically significant contribution to the model was in Step 2 in which the contribution of altruistic prosocial behavior was statistically significant ($\beta = -.17, p < .05$, see Table 4).

In summary, the hypotheses proposed in this study were supported in regards to antisocial behavior, but not psychological distress. The role of altruistic prosocial behavior as a protective factor for teens exposed to community violence was important for boys, but not for girls. Specifically, hypothesis 1 was partially supported: higher levels of community violence were significantly associated with increased antisocial behavior, but not increased symptoms of psychological distress. Gender differences predicted in hypothesis 1 were also only partially supported. That is, boys did report more antisocial behavior than girls, but girls did not report more symptoms of psychological distress than boys. In full support of hypothesis 2, altruistic prosocial behavior was associated with a decrease in negative mental health outcomes and boys and girls reported similar rates of altruism. Similar to hypothesis 1, hypothesis 3 was supported in regards to antisocial behavior, but not psychological distress. Altruistic prosocial behavior moderated the relation between exposure to community violence and antisocial behavior for boys, but not for girls. In contrast, altruistic prosocial behavior was not
associated with a decrease in symptoms of psychological distress for either gender, when exposure to community violence was high.

**Discussion**

The purpose of this study was to examine the moderating role of altruism, a specific form of prosocial behavior, on relations between exposure to violence and negative mental health outcomes in African American adolescents. This group is overrepresented in low-income urban areas in which exposure to community violence has, in many cases, become a fact of life (Addy, Engelhardt, & Skinner, 2013). Previous work has clearly demonstrated that exposure to community violence is associated with antisocial behaviors and psychological distress. However, it is equally clear that all adolescents exposed to violence do not exhibit these negative outcomes. There are many possible factors that may protect individuals in the face of violence exposure. Altruistic behavior during this critical period of identity formation may increase an individual’s access to social support and increase the use of adaptive coping strategies paving the way to a more permanent prosocial identity (Call et al., 2002; Spencer, 2006).

This study extends and expands the literature in several ways. To date, there has been consistent evidence linking exposure to community violence and negative mental health outcomes, this pattern is confirmed with the results presented here in regards to antisocial behavior, but not psychological distress. Similarly, previous work has demonstrated the capacity of prosocial behavior to promote healthy outcomes (Jessor et al., 1998; Lawford et al., 2005; Musick & Wilson, 2003). This study confirms this general trend in an understudied population, and with a more precise measure of “prosocial behavior”. Additionally, it appears that the role of altruism in reducing
antisocial behavior is especially important for youth exposed to community violence. This study is one of the first to examine gender differences in prosocial behavior in African American adolescents. As such it extends the small body of work that suggests unique pathways for African American boys.

Boys and girls in this sample were exposed to similar levels of community violence and exposure was associated with increased reports of antisocial behavior. In general boys reported more antisocial behavior than girls and although antisocial behavior is clearly unproductive for long-term outcomes, it may serve as a short-term survival strategy in high violence contexts. For example, aggression may establish a tough identity and discourage personal victimization (Anderson, 1999; Stevenson, 1997). Similarly, fighting may be conceptualized as a normative problem solving strategy, which produces desired outcomes and induces little cognitive dissonance (Foney & Cunningham, 2002; McMahon et al., 2009).

Given that exposure to community violence construct likely measures some of the most severe aspects of violence exposure (Martinez & Richters, 1993), it is interesting that unlike antisocial behavior, and in contrast to previous literature, there was no association between violence exposure and increased symptoms of psychological distress and that boys and girls reported similar rates of psychological distress. One explanation is that the students in this study demonstrated relatively low rates of internalizing symptoms across the board and that these low rates represent the internal resilience of students who face the challenges of a low-income urban area daily. Students in the current sample may possess protective factors not examined here that encourage positive internal coping. Alternatively, expressions of distress may increase vulnerability in high violence...
neighborhoods and teens may become used to denying feelings of distress (Gaylord-Harden, Cunningham, & Zelencik, 2011). It may also be that the measure of psychological distress utilized in this study was not extensive enough to capture posttraumatic symptoms that may be the most likely response to community violence exposure (Overstreet, 2000).

Altruistic prosocial behavior was associated with significantly lower reports of antisocial behavior and psychological distress. This is in line with previous work examining prosocial behavior as a more general construct (Allen & Philliber, 2001; Belgrave et al., 2011; McMahon et al., 2006). Prosocial behavior has been consistently associated with a reduction in negative outcomes including externalizing and internalizing symptoms in predominately White adolescents; the current study provides evidence that such behaviors are also protective for African American youth. Additionally, boys and girls reported very similar levels of altruistic prosocial behavior. The finding is consistent with the only two studies that I was able to find that examined prosocial behavior in African American adolescents (Belgrave et al., 2011; McMahon et al., 2006). Why would African American adolescents exhibit gendered patterns of prosociality that are in such contrast to those found in predominately White samples? It may be that African American families encourage gender roles that are less rigid in regards to work and “giving” behaviors, encouraging both their sons and daughters to engage in behaviors that are beneficial to the community (Corneille, Ashcraft, & Belgrave, 2005; Hill, 2002).

Additionally and in support of the final hypothesis, altruistic prosocial behavior acted as a moderator in the association between exposure to community violence and
antisocial behavior for boys. Consonant with a PVEST perspective (Spencer, 1996, 2006), the results suggest that altruism plays a critical role as adolescent boys encounter the stressor of community violence in their neighborhoods. PVEST suggests pathways through which protective and risk factor influence outcomes. A possible explanation for the beneficial effects of altruism is that these behaviors increase positive social connections for boys and support, which nurtures a prosocial identity. Once adolescent boys come to see themselves and are seen as prosocial, engaged, and caring, they are less likely to engage in behaviors that violate the rights of others as such acts would create a dissonance with the emerging, stabilizing identity.

Further, even though African American boys may be encouraged by their own families and communities to behave altruistically, both African American boys and girls still encounter gendered behavioral expectations outside of their families (i.e., girls are other-oriented, boys are independent), altruistic behaviors may seem part of the regular fabric of life for girls and are therefore more likely to go unnoticed by both community members and girls themselves. Parents may encourage gendered expressions of behaviors associated with student outcomes. For example, researchers have noted that African American parents use gender-specific strategies when raising their sons and daughters (Cunningham, Swanson, Spencer, & Dupree, 2003; Mandara, Murray, & Joyner, 2005). Simultaneously, the world at large has traditionally held lower expectations for positive behaviors in adolescent boys, particularly boys of color (Spencer et al., 2004). Perhaps boys who defy these expectations develop a view of themselves that stands in stark contrast to the stereotypes they confront in mainstream society. Instead, African American boys who frequently do things to benefit others feel connected and competent,
able to solve problems without aggression, and come to develop a strong prosocial identity eliminating the need to adopt hypermasculine attitudes and making unproductive outcomes, particularly antisocial behaviors unlikely. An alternative explanation of course, is that this association is an artifact of the generally higher levels of antisocial behavior for the boys in my sample. Future research examining girls with high levels of antisocial behavior may help address this question.

Previous studies have sometimes included extracurricular participation in their measure of prosocial behavior (Duncan, Duncan, Strycker, & Chaumeton, 2002) and this participation has often been related with reduced risk behaviors in adolescents (Fredricks & Eccles, 2005). Using a more precise definition of prosocial behavior in this study allowed the influence of extracurricular activities on outcomes to be examined separately from general prosocial behaviors. Although there was strong association between participation in extracurricular activities and altruistic prosocial behavior, participation was not associated with a reduction in negative mental health outcomes. There are several possible reasons for this finding. Perhaps only certain extracurricular activities are associated with reductions (Eccles & Barber, 1999). Some extracurricular organizations may expose teens to both positive peers and adults who model altruism and other positive behaviors, making it more likely that teens will engage in such behaviors themselves (Krevans & Gibbs, 1996; Rutten et al., 2007). For example, altruistic behaviors reported by the students in the current sample may have taken place within the context of an organized club or activity such as volunteering in a soup kitchen or visiting nursing homes. Yet another hypothesis is that students who engage in altruistic behaviors are generally more involved and therefore more likely to choose participation in non-required
activities or clubs. In any case, the results suggest that extracurricular activities play an important role in discouraging negative mental health outcomes to the extent to which they promote altruistic prosocial behaviors.

Church attendance, another factor often included in general measures of prosocial behavior, was also examined. Interestingly, church attendance was not associated with an increase in altruistic behaviors. It was however significantly associated with a decrease in antisocial behavior (but not psychological distress) and approached significance with a decrease in community violence exposure. Perhaps teens who are frequent church attenders have other supports in their lives, such as parents and church members who provide high levels of monitoring, which in addition to increasing adherence to social norms and rules may also shelter students from high levels of violence exposure (Ball et al., 2003; Cunningham et al., 2012; McMahon et al., 2004). Unlike altruism, church attendance did not have a statistically significant association with a decrease in internalizing symptoms, suggesting that the way in which church attendance operates to reduce negative outcomes is through more external pathways. Taken together, the findings for church attendance and extracurricular activities suggest that they should be considered separately from altruistic prosocial behavior and provide further evidence for the use of precise, domain specific definitions of prosocial behavior.

Although these findings make an important contribution to the literature concerning the role of self-initiated protective factors in African American adolescents there are several limitations. I was unable to measure students’ motivation for helping. Understanding why adolescents engage in helping behaviors is extremely important in
classifying those behaviors as truly altruistic (Carlo & Randall, 2002). For example, it is impossible to know if students in this sample engaged in altruistic behavior with the expectation of some kind of reward. In particular it is impossible to know whether these acts were undertaken in public, perhaps indicating a desire for social approval (Carlo & Randall, 2002).

Additionally, extracurricular participation and church attendance are not unitary concepts, but the measures used here were unable to examine the multidimensional nature of either. In this study all forms of extracurricular participation were examined as a global construct, containing diverse activities (e.g., school band, sports participation) that may not be associated with similar outcomes. Similarly, church attendance was measured with a single question: how often do you attend church in an average week? This question does not address important dimensions of religious participation, which may impact relations among study variables. For example, knowing what sort of activities youth engage in while at church would provide a more useful way in which to examine its relationship with prosocial behavior found in previous studies.

Unfortunately, the antisocial behavior construct only included instances of physical aggression, which has traditionally, consistently, and cross-culturally, been associated with males (Lansford et al., 2012). Perhaps if the construct included items that captured relational aggression, the impact of community violence may have been associated with similar increases in antisocial behavior for girls, in which case the protective role of altruism may have been more similar across genders. Similarly the psychological distress construct does not include post-traumatic symptoms such as hyperarousal, re-experiencing, and difficulty concentrating (Mazza & Reynolds, 1999).
Therefore an important association between ECV and internalizing problems may have been dampened.

It is also important to keep in mind that the students in this sample may not be representative of adolescents in a low-income, high violence urban context. The students were attending a school, which required them to commute across the city in the middle of the day in order to participate in a specialized academic program. This academically rich setting is likely to attract students with high expectations and social competencies. Therefore results found in this sample may not be generalizable to most adolescents living in communities beset by violence and have educational settings that do not encourage high achievement patterns.

Finally, these results are cross-sectional and correlational; it is not appropriate to infer causation. Because the study assumes that the power of altruism in reducing negative outcomes is cumulative in nature, gaining protective power as the individual internalizes positive outcomes achieved over time, the present cross-sectional nature of this study makes this pathway difficult to assess.

Traditionally research with ethnic minority adolescents, particularly African American adolescents, has tended to focus on negative outcomes and risk factors, ignoring variables that lead to productive outcomes both for the individual and society (Luthar, 2006). The fact that a literature search yielded only two studies specifically examining prosocial behaviors in African American teens is a testament to the dire need for continuing work in this area. As mentioned earlier, examining prosocial motivation is an important direction for future studies as is examining predicted correlates of altruism such as empathy and perspective-taking abilities (Carlo et al., 2014). Investigations into
these areas will yield results that are both more accurate and useful for creating potential interventions in schools and communities.

Future research should also explore whether engaging in helping behaviors in the context of organized clubs yields benefits similar to self-initiated behaviors. More and more schools are incorporating service components into graduation requirements, yet there is little research concerning such programs in low-income ethnic minority communities. Given that low-income youth generally have less access to organized volunteer opportunities (Hart et al., 1998; Spencer et al., 2004), results of such studies would have clear policy implications for school and community leaders.

Finally, investigations of altruism among African American teens should explore positive outcomes associated with these behaviors. Although identifying factors that are instrumental in reducing problem behaviors and negative psychological symptoms is important, too often this approach leads to intervention efforts that are singularly focused on problem reduction at the expense of health promotion. Positive variables that are potentially associated with altruistic behaviors include adaptive coping, engagement in living, high future expectations, and subjective well-being. Studies that explore the links between serving others and these outcomes in African American adolescents may provide evidence critical for the formulation of health-promoting policies and programs.

Conclusion

The current study supports previous work that demonstrates the positive impact of prosocial behavior for adolescents (Eccles & Barber, 1999; Lerner et al., 2003). Specifically, altruism was examined as a specific form of prosocial behavior and as a potential protective for African American adolescents exposed to community violence.
The impact of altruism on reducing antisocial behavior was especially important for boys who demonstrated rates of altruism equivalent to girls. The gender patterns of altruism found in this study highlight the importance of expanding the field to include ethnic minority youth, whose experiences and perspectives may be associated with outcomes dissimilar from those found in predominately White American samples. Overall, the findings show that African American students can and do manifest resilience in the face of adversity when they take action to benefit others.
References


366. doi:10.1016/j.adolescence.2014.02.009


http://www.childtrends.org/?indicators=childrens-exposure-to-violence


doi:10.1207/S15374424JCCP3002_7


Factors associated with the use of violence among urban Black adolescents.


violence and violence perpetration: The protective effects of family functioning. 

doi:10.1207/s15374424jccp3303_2


doi:10.1111/0022-4537.801998080


doi:10.1037/0022-3514.75.3.788


doi:10.1017/S095457949800159X
doi:10.1017/S095457949800159X


doi.org/10.1007/s11199-005-5679-1


doi:10.1023/A:1021900423004


ALTRUISTIC PROSOCIAL BEHAVIOR AS A PROTECTIVE FACTOR

doi:10.1207/s15427617rhd0104_2


Table 1. Basic Descriptive Statistics and Correlation Matrix for key study variables, N = 207

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
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</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td>15.79</td>
<td>.66</td>
<td>1.68</td>
<td>3.26</td>
<td>.59</td>
<td>2.59</td>
<td>1.28</td>
<td>1.83</td>
</tr>
<tr>
<td><strong>Standard Deviation</strong></td>
<td>1.19</td>
<td>.48</td>
<td>.62</td>
<td>1.05</td>
<td>.74</td>
<td>1.16</td>
<td>.44</td>
<td>.58</td>
</tr>
</tbody>
</table>

1. Age
2. Sex
3. Extracurricular Participation
4. Church Attendance
5. Exposure to Community Violence
6. Altruistic Prosocial Behavior
7. Antisocial Behavior
8. Psychological Distress

\( t = p < .10, \* p = < .05, \* \* p = < .01, \* \* \* p = < .001 \).  
\( \) 5-point scale ranging from 1 (0 hours) to 5 (11 or more hours).  
\( \) 4-point scale ranging from 1 (never) to 4 (once a week or more).  
\( \) Frequency count ranging from 0 to 4.  
\( \) 5-point scale ranging from 1 (no acts of helping) to 5 (5 or more acts of helping).  
\( \) 5-point scale ranging from 1 (no acts of ASB) to 5 (5 or more acts of ASB).  
\( \) 5-point scale ranging from 1 (low) to 5 (high).
Table 2. T-test examining sex differences

<table>
<thead>
<tr>
<th>Variable</th>
<th>Female (n = 136)</th>
<th>Male (n = 71)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age</td>
<td>$M = 15.90\ SD = 1.15$</td>
<td>$M = 15.6\ SD = 1.23$</td>
</tr>
<tr>
<td></td>
<td>$SE = .10$</td>
<td>$SE = .15$</td>
</tr>
<tr>
<td>2. Extracurricular Participation</td>
<td>$M = 1.66\ SD = .58$</td>
<td>$M = 1.72\ SD = .70$</td>
</tr>
<tr>
<td></td>
<td>$SE = .05$</td>
<td>$SE = .08$</td>
</tr>
<tr>
<td>3. Church Attendance</td>
<td>$M = 3.34\ SD = 1.0$</td>
<td>$M = 3.1\ SD = 1.14$</td>
</tr>
<tr>
<td></td>
<td>$SE = .08$</td>
<td>$SE = .14$</td>
</tr>
<tr>
<td>4. Exposure to Community Violence</td>
<td>$M = .57\ SD = .71$</td>
<td>$M = .63\ SD = .80$</td>
</tr>
<tr>
<td></td>
<td>$SE = .06$</td>
<td>$SE = .09$</td>
</tr>
<tr>
<td>5. Altruistic Prosocial Behavior</td>
<td>$M = 2.63\ SD = 1.17$</td>
<td>$M = 2.5\ SD = 1.14$</td>
</tr>
<tr>
<td></td>
<td>$SE = .10$</td>
<td>$SE = .14$</td>
</tr>
<tr>
<td>6. Antisocial Behavior**</td>
<td>$M = 1.19\ SD = .29$</td>
<td>$M = 1.44\ SD = .61$</td>
</tr>
<tr>
<td></td>
<td>$SE = .02$</td>
<td>$SE = .07$</td>
</tr>
<tr>
<td>7. Psychological Distress</td>
<td>$M = 1.86\ SD = .52$</td>
<td>$M = 1.85\ SD = .52$</td>
</tr>
<tr>
<td></td>
<td>$SE = .05$</td>
<td>$SE = .06$</td>
</tr>
</tbody>
</table>

**p = < .01
Table 3. Regression: Sex differences in Altruistic Prosocial Behavior as a buffer between ECV and Antisocial Behavior

<table>
<thead>
<tr>
<th>Variables</th>
<th>SE</th>
<th>B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>.03</td>
<td>.00</td>
<td>.01</td>
</tr>
<tr>
<td>Extracurricular</td>
<td>.05</td>
<td>.00</td>
<td>.01</td>
</tr>
<tr>
<td>Church Attendance</td>
<td>.03</td>
<td>-.08</td>
<td>-.19**</td>
</tr>
<tr>
<td>( F(3,202) = 2.50; R^2 = .04 )</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exposure to Community Violence</td>
<td>.04</td>
<td>.12</td>
<td>.20**</td>
</tr>
<tr>
<td>Altruistic Prosocial Behavior</td>
<td>.03</td>
<td>-.06</td>
<td>-.15'</td>
</tr>
<tr>
<td>Sex</td>
<td>.06</td>
<td>-.24</td>
<td>-.25***</td>
</tr>
<tr>
<td>( \Delta F(6,199) = 10.06; \Delta R^2 = .13 )</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECV \times Altruistic Prosocial Behavior</td>
<td>.04</td>
<td>-.10</td>
<td>-.18**</td>
</tr>
<tr>
<td>ECV \times Sex</td>
<td>.08</td>
<td>-.21</td>
<td>-.27***</td>
</tr>
<tr>
<td>Altruistic Prosocial Behavior \times Sex</td>
<td>.05</td>
<td>.16</td>
<td>.34***</td>
</tr>
<tr>
<td>( \Delta F(9,196) = 8.10; \Delta R^2 = .09 )</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECV \times Altruistic Prosocial \times Sex</td>
<td>.07</td>
<td>.14</td>
<td>.19'</td>
</tr>
<tr>
<td>( \Delta F(10,195) = 4.22; \Delta R^2 = .02 )</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\( p < .10, ' p < .05, `` p < .01, *** p < .001 \)

\( F(10,195) = 7.242; R^2 = .52 \)
Table 4. Regression: Sex differences in Altruistic Prosocial Behavior as a buffer between ECV and Psychological Distress

<table>
<thead>
<tr>
<th>Variables</th>
<th>SE</th>
<th>B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>.03</td>
<td>-.01</td>
<td>-.02</td>
</tr>
<tr>
<td>Extracurricular</td>
<td>.07</td>
<td>-.03</td>
<td>-.03</td>
</tr>
<tr>
<td>Church Attendance</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

$F(3,203) = .76; R^2 = .01$

Step 2

<table>
<thead>
<tr>
<th>Variables</th>
<th>SE</th>
<th>B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure to Community Violence</td>
<td>.06</td>
<td>.08</td>
<td>.10</td>
</tr>
<tr>
<td>Altruistic Prosocial Behavior</td>
<td>.04</td>
<td>-.09</td>
<td>-.17</td>
</tr>
<tr>
<td>Sex</td>
<td>.09</td>
<td>-.01</td>
<td>.00</td>
</tr>
</tbody>
</table>

$\Delta F(6,200) = 2.40; \Delta R^2 = .03$

Step 3

<table>
<thead>
<tr>
<th>Variables</th>
<th>SE</th>
<th>B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECV x Altruistic Prosocial Behavior</td>
<td>.05</td>
<td>.02</td>
<td>.03</td>
</tr>
<tr>
<td>ECV x Sex</td>
<td>.11</td>
<td>-.10</td>
<td>-.10</td>
</tr>
<tr>
<td>Altruistic Prosocial Behavior x Sex</td>
<td>.08</td>
<td>.03</td>
<td>.04</td>
</tr>
</tbody>
</table>

$\Delta F(9,197) = .33; \Delta R^2 = .01$

Step 4

<table>
<thead>
<tr>
<th>Variables</th>
<th>SE</th>
<th>B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECV x Altruistic Prosocial x Sex</td>
<td>.11</td>
<td>-.09</td>
<td>-.09</td>
</tr>
</tbody>
</table>

$\Delta F(10,196) = .76; \Delta R^2 = .00$

$* = p < .10, ^{'} = p < .05, ^{''} = p < .01, ^{'''} = p < .001$  
$F(10,196) = 1.11; R^2 = .23$
Figure 1. Spencer’s Phenomenological Variant of Ecological Systems Theory (PVEST).
Figure 2. Thesis Model
Figure 3. Sex Differences in the moderation effects of Altruistic Prosocial Behavior in the relation between ECV and Antisocial Behavior

Notes. Significant slope differences between slopes (1) girls with high prosocial behavior and (4) boys with low prosocial behavior ($t(206) = -3.28, p < .00$), slopes (2) girls with low prosocial behavior and (4) boys with low prosocial behavior ($t(206) = -2.94, p < .01$), and slopes (3) boys with high prosocial behavior and (4) boys with low prosocial behavior ($t(206) = -2.88, p < .001$).
Appendix A

Students indicated whether the event happened in the last 12 months. Higher score indicates greater exposure to community violence.

ECV LER15: You were victimized

ECV LER 16: You were personally victimized (mugged, “jumped”, humiliated, or embarrassed)

ECV LER 17: One or two people you knew were killed

ECV LER 19: The police or detectives broke into your home
Appendix B

Students were asked a number of questions about behaviors they had engaged in within the last year. Responses ranged from 1 – 5 (0 = never, 2 = once, 3 = 2 or 3 times, 4 = 3 or 4 times, 5 = 5 or more times). High score indicates higher levels of self-reported prosocial behavior.

*How many times in the past 12 months have you…*

PSB 62 Been involved in a project to help make life better for other people
PSB 67 Given money or time to a charity or organization that helps people
PSB Q68 Spent time helping people who are poor, hungry, sick, or unable to take care of themselves?
Appendix C

Students were asked a number of questions about behaviors they had engaged in within the last year. Responses ranged from 1 – 5 (\(1 = \text{never}\), \(2 = \text{1 or 2 times} \), \(3 = \text{2 - 3 times}\), \(4 = \text{3 – 4 times}\), \(5 = \text{5 or more times}\)). High score indicates higher levels self-reported antisocial behavior.

*How many times in the last 12 months have you…*

ASB 61. Stolen something from a store

ASB 64. Hit or beat someone up

ASB 66. Damaged property just for dun (such as breaking windows, scratching a car, putting paint on walls, etc.)

ASB 119. Taken part in a fight where a group of your friends were against another group

ASB 120. Hurt someone badly enough to need bandages or a doctor

ASB 121. Used a gun or knife or some other thing (like a club) to get something from a person
Appendix D

Students answered questions about the self. Responses ranged from 1 to 5 (1 = *strongly agree*, 2 = *agree*, 3 = *not sure*, 4 = *disagree*, 5 = *strongly disagree*). High score indicates more self-reported psychological distress.

PD Q33 I don’t care how I do in school
PD Q39 My family life is happy
PD Q40 I have a number of good qualities
PD Q41 I am not good at making friends
PD Q42 On the whole I like myself
PD Q43 I feel no one understands me
PD Q47 All in all, I’m glad I’m me
PD Q49 I am a lonely person
PD Q51 I feel I do not have much to be proud of
PD Q56 I am good at making decisions
PD Q57 I feel no one cares about me
PD Q45 At times I think I am no good at all
Appendix E

Students were asked how often in the average week they participated in extracurricular activities. Responses ranged from 1 – 5 (1 = 0 hours, 2 = 1-2 hours, 3 = 3-5 hours, 4 = 6-10 hours, 5 = 11 or more hours). High score indicates higher levels of extracurricular participation.

During an average week, how many hours do you …

EC73 Spend in band, choir, orchestra, music lessons, or practicing voice or an instrument

EC74 Spend playing sports on a school team

EC 75 Spend in clubs or organizations at school (other than sports)

EC 76 Spend in clubs or organizations outside of school