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Virginia Commonwealth University

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DATING VIOLENCE VICTIMIZATION AND POSTTRAUMATIC STRESS OUTCOMES
AMONG URBAN ADOLESCENTS: THE MODERATING AND MEDIATING ROLE OF
POSITIVE OUTLOOK

A thesis defense submitted in partial fulfillment of the requirements for the degree of Master of
Science at Virginia Commonwealth University

By: CARINE LESLIE

Bachelor of Science, Psychology, Lehigh University, 2017

Director: Terri N. Sullivan, Ph.D.

Professor

Department of Psychology

Virginia Commonwealth University

Richmond, Virginia

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Table of Contents

Acknowledgements.....	ii
List of Figures.....	vi
List of Tables.....	vii
Abstract.....	viii
Introduction.....	1
Posttraumatic Stress Symptoms.....	4
Positive Outlook.....	5
Theoretical Frameworks.....	8
Stress Response Theory.....	9
Theory of Shattered Assumptions.....	9
Phenomenological Variant of Ecological Systems Theory.....	10
Positive Outlook as a moderator or mediator.....	12
Positive outlook as a potential moderator.....	13
Positive outlook as a potential mediator.....	15
Victimization and posttraumatic stress symptoms.....	17
Relations between peer victimization and posttraumatic stress sxS.....	18
Relations between dating violence victimization and posttraumatic stress sxS.....	20
Gender and age differences.....	21
Limitations of the dating literature.....	21
Conclusion.....	22
The Present Study.....	23
Study Hypotheses.....	24

Methods.....	26
Setting and Participants	26
Procedures.....	26
Measures.....	27
Trauma-related distress.....	27
Dating violence victimization.....	27
Positive Outlook.....	28
Covariates.....	28
Data Analysis Plan.....	28
Results.....	29
Descriptive Statistics.....	29
Relations Between DVV, Positive Outlook, and Posttraumatic Stress Symptoms.....	30
Moderation Models.....	31
Mediation Model.....	31
Discussion.....	32
Descriptive Analyses.....	33
Longitudinal Relations between DVV and Posttraumatic Stress Symptoms.....	34
The Moderating Role of Positive Outlook.....	35
The Mediating Role of Positive Outlook.....	37
Limitations.....	37
Implications and Future Directions.....	40
Conclusions.....	41
References.....	42

Appendix A.....56

Appendix B.....59

Appendix C.....60

List of Figures

- Figure 1. Hypothesized relation between dating violence victimization and posttraumatic stress symptoms moderated by positive outlook.....24
- Figure 2. Hypothesized relation between dating violence victimization and posttraumatic stress symptoms via positive outlook.....25
- Figure 3 Hypothesized moderation model whereby the strength of the moderating effect of positive outlook on the relation between DVV and posttraumatic stress symptoms is expected to vary by gender.....25

List of Tables

Table 1	Means, Standard Deviations, and Correlations for Dating Violence Victimization, Positive Outlook, and Posttraumatic Stress Symptoms.....	30
Table 2	Longitudinal Relations Between Dating Violence Victimization and Posttraumatic Stress Symptoms.....	31

Abstract

DATING VIOLENCE VICTIMIZATION AND POSTTRAUMATIC STRESS OUTCOMES AMONG URBAN ADOLESCENTS: THE MODERATING AND MEDIATING ROLE OF POSITIVE OUTLOOK

By Carine E. Leslie, B.S.

A thesis submitted in partial fulfillment of the requirements for the Master of Science at Virginia

Commonwealth University

Virginia Commonwealth University, 2020

Major Director: Dr. Terri N. Sullivan, Ph.D.
Professor of Psychology

Adolescent dating violence occurs far too frequently in early adolescence and is related to adverse mental health outcomes, including posttraumatic stress symptoms. One focus within this literature has been to determine and better understand how protective processes may function in influencing relations between risk factors and dating violence victimization. A protective factor that has not been explored in the dating literature is positive outlook. The current short-term longitudinal study investigated whether dating violence victimization at Time 1 predicted posttraumatic stress symptoms at Time 2 among African American middle school students and examine whether positive outlook moderated or mediated this relation. Data were collected from 824 adolescents (52% female) in the sixth ($n = 283$), seventh ($n = 249$), and eighth ($n = 292$) grades who reported a current or recent dating relationships (i.e., within the past three months) at Time 1. All participants identified themselves as African American or Black. Results showed that dating violence victimization at Time 1 did not predict posttraumatic stress symptoms at

time 2. Further, positive outlook did not function as a moderator or mediator of this relation.

Lastly, the DVV x positive outlook interaction did not vary by gender.

Introduction

Early adolescence is a crucial stage of development, and for many youth, one normative aspect of this developmental timeframe is the initiation of romantic relationships. These relationships are typified by mutual affection and provide opportunities for building skills surrounding communication, problem-solving, and conflict resolution (Callahan et al., 2003), and addressing issues of exclusivity, loyalty, trust, and jealousy between dating partners (Sullivan et al., 2010). Studies of predominantly Latinx and/or African American middle school students living in low-income, urban contexts showed that around half of participants reported currently or recently having a boyfriend or girlfriend (Goncy et al., 2017; Niolon et al., 2015; Simon et al., 2010). Dating relationships tend to be qualitatively different across adolescence, with early adolescent daters (i.e., before age 14) having relationships that are shorter in duration than those in mid- and late adolescence. These relationships generally last a few weeks to months, but rarely more than four months (Carver et al., 2003). This may be due in part to the fact that the relationships of early adolescents often occur in the context of peer networks, which can contribute to fluidity between romantic partners and friends (Connolly & McIsaac, 2009).

Although romantic relationships contribute positively to adolescent development, a number of youth struggle with the adaptive resolution of conflict in this context (Goncy et al., 2017; Joyner & Udry, 2000; Larson et al., 2014). Rates of dating violence in early adolescence are concerning with between 1 in 5 to 1 in 2 early adolescents reporting experiences of dating violence victimization (DVV; Goncy et al., 2017; Niolon et al., 2015). Adolescents who are exposed to dating violence may experience depression, anxiety, posttraumatic stress symptoms, engaging in risky behaviors (i.e. tobacco, drug, and/or alcohol use), suicidality, as well as school and academic problems (i.e. early school dropout, attendance issues, and/or academic

achievement) (Center for Disease Control and Prevention [CDC], 2018; Lormand et al., 2013).

Thus, it is important to explore the impact of dating violence on adolescents because they are at a formative developmental stage and involvement in dating violence during this stage of development may place them at an even greater risk for continued victimization as they age (Exner-Cortens et al., 2017).

The CDC (2018) categorizes dating violence into three different subtypes: physical, sexual, and psychological/emotional. Physical violence includes the deliberate use of physical acts of violence (e.g., hitting, pushing, or slapping) that are intended to hurt a dating partner (Goncy et al., 2016). Sexual violence occurs when there is any unwanted sexual contact (i.e., enacted without consent) such as rape, sexual assault, or unwanted kissing or touching (Smith et al., 2018). In a meta-analytic study, Wincentak et al. (2017) found prevalence rates for physical DVV among adolescents (ages 13-18) was 21% for both girls and boys, but higher rates were found for sexual victimization for girls (14%) as compared to boys (8%). Lastly, psychological/emotional violence includes acts such as humiliating, insulting, or blaming a partner with the intent of controlling or intimidating him/her (Wolfe et al., 2001).

Some researchers highlighted that youth living in under-resourced, urban communities face elevated risk for community violence exposure, which has been shown to be a risk factor for DVV (Hamby et al., 2012). African American adolescents are disproportionately represented in communities that experience economic, health, and geographic disparities such as geographic isolation that creates limited access to transportation, economic opportunities, and resources for youth and families as well as large numbers of residents concentrated in a small geographic area, and high levels of mobility and neighborhood disorganization (CDC, 2019; Nation, 2008). These structural factors in turn increase the risk for exposure to youth violence in community, peer, and

dating contexts (Landor et al., 2011). Due to the high rates of violence within these settings, African American youth might normalize instances of violence. A qualitative study focused on inner-city, middle school youth found that they did not consider pushing and shoving as violent incidents, but rather viewed these behaviors as somewhat acceptable (McIntyre, 2000). It also seemed that these youth connected instances of violence to other activities in their lives, thus further contributing to this normalization of violence.

Experiences of adversity and poverty have also been associated with increased risk for victimization across one's lifetime, and this may include a greater risk for DVV among adolescents living in under-resourced neighborhoods (Lewis & Fremouw, 2001). Importantly, Black and colleagues (2015) found that African American youths' experience with community violence predicted acceptability of DVV, that is, youth may be more accepting of a certain amount of violence in a relationship. The CDC (2014) reported prevalence rates for physical DVV to be 8.2% for African American males and 12.3% for African American females. Further, a recent review suggests that DVV may impact up to 40% of African American youth (Henry & Zeytinoglu, 2012) with some studies reporting slightly higher prevalence rates (e.g., Goncy et al., 2017). These statistics underscore the importance of dating violence prevention efforts, and the identification of protective processes that may ameliorate negative outcomes among African American early adolescents who experience DVV.

Youth exposed to violence are particularly susceptible to a host of maladaptive outcomes, such as posttraumatic stress disorder (PTSD). However, current prevalence rates of PTSD vary and are not specific to dating violence outcomes but take into account a wide range of traumatic events. A meta-analysis of 72 studies conducted cross-nationally indicated that 15.9% of children who have experienced a traumatic event will develop PTSD (Alisic et al., 2014). In a national

sample of adolescents ages 12-17, 3.7% of boys and 6.3% of girls met criteria for PTSD six months after experiencing a traumatic event (Kilpatrick et al., 2003). Finally, Storr and colleagues (2007) explored the prevalence of PTSD in 837 urban first graders (71% African American) followed-up for 15 years. Follow-up evaluations indicated a lifetime PTSD prevalence rate of 8.8% in this sample. It is also important to note that, while not all children with PTSD symptoms may fulfill the criteria needed for a diagnosis, they may still exhibit significant impairment and distress (Copeland et al., 2007).

Posttraumatic Stress Symptoms

PTSD is an anxiety disorder that develops as a response to a traumatic stressor. Symptoms of PTSD are characterized into four symptom clusters: intrusive thoughts, avoidance, negative alterations in mood or cognitions, and psychological arousal. Intrusive thoughts include recurrent, involuntary memories, nightmares, or dissociative reactions. Avoidance symptoms comprise of a persistent avoidance of trauma-related thoughts or feelings as well as an avoidance of external reminders such as people, places, or situations that arouse distressing memories, thoughts, or feelings. Negative alterations in mood or cognitions must begin or worsen after the traumatic stressor occurred as evidenced by symptoms such as an inability to remember key features of the event; negative beliefs or expectations about oneself, others, or the world; persistent, distorted ideas about the cause of the traumatic stressor; persistent negative emotions; a diminished interest in activities one previously enjoyed; feelings of detachment; or an inability to experience positive emotions. Psychological arousal may include increased irritability, recklessness, hypervigilance, increased startle response, difficulties concentrating, or sleep disturbances.

While a clinical diagnosis of PTSD requires specific criteria to be met from the *Diagnostic and Statistical Manual of the American Psychiatric Association* (American Psychiatric Association, 2013), children and adolescents often exhibit a wide range of symptomatology while not meeting full criteria. In fact, many studies have shown that traumatized individuals who do not meet full criteria for PTSD still exhibit significant psychological and behavioral impairment (Brancu et al., 2016). Youth may demonstrate other negative responses related to their trauma that result in deleterious effects on their social-emotional development such as intrusive thoughts of violent experiences, avoidance of certain locations, separation anxiety, and anger (Foster et al., 2004; Overstreet & Braun, 2000). Although a wide variety of experiences can result in PTSD symptoms, some experiences are more prone to these outcomes than others. For instance, traumatic experiences that are repetitive and/or cause the individual to fear his or her life have been found to be predictive of PTSD symptomatology (Becker-Blease & Freyd, 2005; Deprince, 2001).

Positive Outlook

Given the variability in outcomes of dating violence among early adolescents, it is important to examine individual strengths or protective processes that may ameliorate associations between DVV and negative outcomes and/or protect early adolescents against the adverse effects of dating violence. One such factor is positive outlook. Positive outlook is a construct that measures an individual's outlook for the future. Further, positive outlook measures one's future orientation, which has been described as a cognitive-motivational developmental process that includes an individual's thoughts, plans, hopes, and feelings about his or her future (Arnett, 2000; McCabe & Barnett, 2000; Nurmi, 1991). Future orientation is an ongoing process in which an individual creates expectations for the future and sets goals based on their values,

experiences, and environmental influences (Nurmi, 1991; Trommsdorff, 1983). This domain rapidly develops and changes during adolescence (Greene, 1986), due to concerns about life-course outcomes such as educational and occupational achievements, getting married, or having a family (Nurmi, 1991; Seginer, 2008). In fact, future orientation has been associated with positive psychosocial development such that adolescents who have positive thoughts and goals for their future are more likely to demonstrate improved social, emotional, and academic functioning (Oyserman et al., 1995). Further, future orientation may increase during adolescence (Steinberg et al., 2009), making this an ideal developmental period to examine the influence of future orientation.

Several studies have explored the potential promotive role of positive future orientation for African American adolescents. McCabe and Barnett (2000) explored future orientation in a sample comprising a majority (53%) of African American early adolescents ($M_{\text{age}} = 12.4$ years) living in low income, urban contexts. Future orientation was operationalized across three domains: career, family, and romantic relationships. Prevalence rates for each domain were denoted by the percentage of adolescents who rated that it was “very likely” they would achieve these goals. Of the sample, 52% rated themselves as “very likely” to achieve future career outcomes, but only 27% were “very likely” in their ability to have the kind of family they wanted, whereas 21% of adolescents felt confident they would obtain the kind of romantic relationship they wanted. That is, they reported feeling less certain about their ability to plan for future relationships. Thus, it may be important to address adolescents’ plans for future romantic relationships and families in order to help them navigate similar challenges they will face in adolescence.

There is some research on racial/ethnic differences in levels of future orientation, however evidence is mixed. Cabrera and colleagues (2009) found no differences on the basis of race/ethnicity when comparing future orientation in 343 European American and African American (69%), adolescents in foster care. However, other studies suggest differences in rates of future orientation among racial/ethnic minority and white youth. In a sample from the National Longitudinal Study of Adolescent Health, 14.7% of youth in grades 7 through 12 reported a 50/50 chance that they would live to the age of 35. Additionally, significant differences were found by race/ethnicity with 25.7% of African American youth reporting perceptions of early mortality as compared to 10.2% of white youth (Borowsky et al., 2009). In comparison to non-Hispanic whites, individuals who were non-Hispanic Black, Hispanic, and Native American reported lower expectations of attending college and living to age 35 (McDade et al., 2011). On the contrary, some studies have demonstrated that African American adolescents living in low-income areas held the expectation that they would attend college, even when attending schools with high dropout rates (Cunningham et al., 2009; Kao & Thompson, 2003).

Contrary to the findings on racial/ethnic differences in future orientation, potential gender differences appear to be more conclusive. In an adolescent sample of 572 African American adolescents, no gender differences were found on the basis of future orientation (So et al., 2018). Similarly, McCabe and Barnett (2000) found no gender differences related to dimensions of future orientation in a sample comprising of a majority of African American adolescents living in low-income, urban communities. Further, in a sample of early adolescents (51% African American), descriptive analyses showed no gender differences in levels of future orientation (Hamilton et al., 2016).

Future orientation may be particularly salient for youth exposed to violence, such that levels of youths' future orientations may be impacted by their rates of exposure to violence. Research suggests that individuals exposed to violence may possess a lower future orientation than those who are not exposed. Specifically, one study found that participants who were exposed to trauma, including exposure to war (i.e. "I was shot at" or "Someone dear to me was killed in an accident") had a lower future orientation than those who were not (Lavi & Solomon, 2005). More specifically, a sample of 300 Palestinian youth who were exposed to higher levels of war exhibited lower future orientation as well as higher levels of posttraumatic stress symptoms than did youth with lower levels of exposure to war. Further, the higher their level of exposure, the more pessimistic were their views of the future (Lavi & Solomon, 2005).

A study by Hong and colleagues (2019) examined relations between exposure to community violence, future orientation, and posttraumatic stress in a sample of African American youth. Results suggested a positive association between exposure to community violence and low future orientation as well as between low future orientation and posttraumatic stress symptoms. However, both of these studies are limited by their cross-sectional nature and so do not allow inferences to be made about potential causality. Thus, longitudinal work is needed to further understand the interrelation of these important constructs and their impact on urban youth.

Theoretical Framework

Several theoretical frameworks and perspectives from stress response, cognitive, and ecological theories offer insight into understanding the relation between exposure to a traumatic event, posttraumatic stress symptoms, and future orientation. In this section, these models and perspectives are reviewed.

Stress Response Theory

Horowitz (1986) theorized that when individuals are faced with new information from their environment, mental representations of themselves are formed. While most information received is congruent with preexisting schema, traumatic experiences are not. Thus, individuals may struggle to integrate this new traumatic information. While individuals are attempting to comprehend the traumatic stressor, they may be compelled to change their beliefs to make sense of their experience of such stressors. However, in order to do this, new schema will need to be created to reconcile this new information with previous beliefs. As this process occurs, mental representations about the self or future goals may be adjusted so they are consistent with the new information. This theory demonstrates that recovery from trauma may include wider cognitive change.

Theory of Shattered Assumptions

Janoff-Bulman (1992) theorized how traumatic or stressful events introduce information that shatters an individual's assumptions about themselves or the world. In fact, many trauma theorists propose that posttraumatic stress disorder is a disorder of shattered beliefs. More specifically, traumatic stressors may disrupt core beliefs that an individual holds. For instance, these traumatic experiences may challenge previously held beliefs. Conversely, these experiences may be consistent with an individual's past experience as well, only serving to further reinforce these maladaptive beliefs (Foa et al., 1999).

Janoff-Bulman and Frieze (1983) posit three assumptions that can change as a result of victimization. These include beliefs that the world is benevolent, the world is meaningful, and the self is worthy. Janoff-Bulman (1992) uses information processing to identify the ways in which cognitive factors, such as schemas, influence individuals' approach to these three

assumptions. Given that individuals are resistant to any sort of change in these assumptions, traumatic experiences work to shatter them. Thus, individuals must work within this new framework to reconcile their old assumptions with new ones. Past empirical work has resulted in support for this theory as well as explored how the type of trauma may impact which assumption(s) are affected (Janoff-Bulman, 1992).

Roth and colleagues (1991) have explored the role of assumptions in sexual assault survivors. The authors note that sexual assault survivors must come to terms with the meaning of the trauma as well as the emotional impact in order to deal with the disruption caused by the traumatic event. Roth and Newman (1991) also reiterate past research that working through the trauma may necessitate a reexamination of one's beliefs. Within this framework, they have identified four assumptions that are disrupted by trauma, three of which are the assumptions outlined by Janoff-Bulman (1983), with the fourth assumption explaining how people are trustworthy and worth relating to. An empirical study conducted by Newman, Riggs, and Roth (1997) explored how overall disruption in themes (e.g. self-worth, meaningful world, helplessness) affect symptoms of posttraumatic stress disorder. This study illustrated that alterations in these themes are related to symptomatology. Moreover, when youth cannot give meaning to dangerous experiences, trauma symptoms may arise.

Phenomenological Variant of Ecological Systems Theory (PVEST)

Spencer's (2007, 1995) phenomenological variant of ecological systems theory (PVEST) offers a framework for considering an adolescent's environment within their social development. In doing so, application of PVEST can help determine the relation between various constructs, such as how an individual's future orientation moderates relations between DVV and trauma symptoms (Spencer et al., 2003). PVEST extends Bronfenbrenner's (1977) ecological systems

theory to consider how the environment is characterized by challenges, resources, and support systems. Further, a subjective component of PVEST is integrated into the framework such that an adolescent's outcomes are further defined by their perceived experience of these challenges, resources, and supports. Of importance, the PVEST was developed specifically for ethnically diverse youth and has been used extensively with African American youth.

PVEST explores the attainment of good outcomes in the face of significant challenges. That is, African American adolescents who grow up in neighborhoods with challenges, such as economic disadvantage or higher levels of exposure to violence, have support mechanisms that help to buffer potential negative influences. These supports might be external (i.e. social support) or internal (i.e. social cognition) and are both associated with resiliency. These supports may enable adolescents to create positive future orientations for themselves regardless of the stressors they face. Individuals are able to foster positive outcomes when they perceive more supports than challenges in their various contexts.

To illustrate future orientation within a PVEST framework, a challenge could be characterized by the stress of growing up in a high-burden community where there are interacting risk processes such as exposure to violence that may be associated with higher levels of DVV (Sampson et al., 2005). However, as asserted by this theory, regardless of challenges faced, if an individual has a support system(s) that fosters feeling positive about the future, this may help to buffer the relation between DVV and negative outcomes such as posttraumatic stress symptoms. In this way, other protective processes may promote positive future orientations that then buffer the potential negative impact of risk factors. However, individuals may vary in their individual levels of risk and protective factors making it difficult to identify factors that are consistent across multiple individuals and settings.

Contrary to other theories, PVEST attends to cultural and ecological differences that may influence the development of future orientation. This model uses an identity-focused cultural ecological perspective that places identity formation within a broader cultural context. As such, it reinforces the importance of considering relevant sociocultural and ecological factors in understanding various constructs (i.e. dating victimization), protective factors (i.e. future orientation), and other outcomes (i.e. posttraumatic stress symptoms; Spencer, 2007). As adolescents encounter a myriad of risk factors, such as dating violence, how they navigate these experiences not only redefines how they currently view themselves, but their future selves as well. Importantly, future orientations are shaped by adolescents' cultural and social world. Thus, attention must be given to understanding how context comes to shape adolescents' expectations for the future.

Positive Outlook as a moderator or mediator

Increasingly, there has been a focus in the literature to identify moderating and mediating variables that may help explain processes accounting for the link between exposure to violence (i.e. dating violence) and emotional outcomes for adolescents. Positive outlook can potentially operate as both a moderator or mediator of that relation. A positive outlook, or future orientation, may serve as a source of resilience for adolescents who have undergone traumatic events (Bonanno, 2004). Many individuals who are exposed to potentially traumatic events do not develop posttraumatic stress symptoms, and continue to display positive emotional experiences (Bonanno, 2004). According to this conceptualization, an individual's level of future orientation may be a factor that contributes to fewer trauma symptoms following a traumatic event.

Identifying whether positive outlook functions as a mediator or moderator on the relation between DVV and trauma symptoms is important because this construct can be targeted by

prevention and intervention efforts (Boxer & Dubrow, 2002). However, previous research has not explored the function of future orientation in the relation between DVV and trauma-related outcomes, thus it was tested as both a mediator and moderator in the present study.

Positive Outlook as a potential moderator

Theoretically, future orientation can be viewed as a moderator. As a moderator, future orientation acts as a buffer or protective factor. It's been shown that certain protective factors, such as resiliency, function to attenuate the effects of trauma (Rutter, 1987). Thus, it would be expected that adolescents who endorse a more positive future orientation would be less likely to experience emotional distress when exposed to DVV. Thus, a positive future orientation might have a protective-stabilizing effect on the relation between DVV and posttraumatic stress outcomes such that adolescents with a higher future orientation may be less vulnerable to having their world views altered and thus would be less likely to develop trauma-related cognitions. However, at this time, no research has explored this construct to assess if it moderates the relation between DVV and trauma symptoms. Therefore, relevant lines of literature exploring adolescents' psychosocial outcomes, social and emotional developmental, and dysregulated behavior were reviewed.

Youth who are raised in environments where they frequently experience stressors like exposure to community violence, but who maintain positive views of the future, are less likely to develop psychosocial problems than youth who hold more pessimistic views of their future (McCabe & Barnett, 2000; Wyman et al., 1993). More generally, this may be especially pertinent as some sources have shown that African Americans experience psychological distress at higher rates compared to non-Hispanic, white youth (Office of Minority Health [OMH], 2014). However, given the unique violent and nonviolent stressors that adolescents face, there may also

be separate familial, social, and structural factors contributing to the adjustment of adolescents living in high-burden urban contexts (Thompson et al., 2019).

In a sample of African American adolescents ($n = 638$), those who reported higher future orientation were less likely to report poor mental health outcomes. In fact, the likelihood of reporting poor mental health decreased by 75% for individuals with a higher future orientation (So et al., 2016). Longitudinal analyses also showed that future orientation moderated the relation between peer emotional victimization and depression outcomes in a sample of 12- to 13-year-old early adolescents (51% African American). Future orientation significantly interacted with emotional victimization to act as a buffer against symptoms of depression, such that at high levels of emotional victimization, higher versus lower levels of future orientation were associated with fewer depressive symptoms (Hamilton et al., 2016).

Several studies have found positive future orientation to be associated with improved social and emotional development, particularly among minority and also among low-income youth (Werner & Smith, 1982; Wyman et al., 1993). However, the majority of recent research on future orientation is limited in that it is cross-sectional in nature and focuses on outcomes such as externalizing behaviors (So et al., 2018; Stoddard et al., 2011; Wyman et al., 1993). Less is known about future orientation as protective factor for emotional outcomes, particularly among African American youth exposed to various stressors, such as DVV.

A number of researchers have documented inverse relations between future orientation and dysregulated behavior amongst adolescents. Specifically, adolescents who possess positive thoughts toward their future tend to engage in less risky behaviors. So and colleagues (2018) examined the role of future orientation as a protective factor in a sample of 572 African American youth exposed to community violence. Future orientation was found to moderate the

relationship between community violence and delinquent behavior such that at high levels of community violence, higher versus lower levels of future orientation were associated with less externalizing behaviors. One argument for these findings is that future orientation may act to reduce dysregulated behaviors by helping youth focus on the long-term consequences of such behavior and/or their desired outcomes for their future (So et al., 2018).

Research points to the importance of continuing to explore future orientation as a protective factor for African American adolescents. At this time, no research has explored this construct to assess if it moderates the relation between DVV and posttraumatic stress symptoms. Using longitudinal data, this study provides insight into the potential role of future orientation as a protective factor over time for youth exposed to DVV in mitigating the relation between this exposure and posttraumatic stress symptoms.

Positive Outlook as a potential mediator

Positive outlook might also be conceptualized as a mediator. Mediators help explain the underlying mechanism of how a predictor variable relates to an outcome variable. Environmental factors such as dating violence may inhibit an individual's ability to think about the future and limit the development of a hopeful sense of the future (Lorion & Saltzman, 1993; McGee, 1984). This decrease in positive future orientation may then be related to high rates of posttraumatic stress symptoms. However, mediating effects of future orientation on the relation between DVV and posttraumatic stress symptom outcomes have not been explored; thus, related literature exploring mental health outcomes as well as violent and delinquent behaviors are reviewed.

Zhang and colleagues (2009) examined future orientation as a mediator between traumatic events and mental health. The international sample comprised of 1,221 youth in rural China ($M_{\text{age}} = 12.86$). Results showed that traumatic events were significantly negatively

associated with levels of future orientation, which in turn, was negatively associated with mental health outcomes. Specifically, as the number of traumatic events experienced increased, positive future orientation decreased. Further, lower levels of future orientation were associated with higher levels of mental health symptoms. Lastly, results of the mediation model suggested that future orientation fully mediated the relation between experiencing traumatic events and mental health symptoms in youth. Results demonstrated the negative effects of traumatic events on youths' mental health as well as the negative effect on their future orientation. However, this data is cross-sectional in nature, preventing causal interpretation of the study variables.

Future orientation has also been found to act as a promotive factor for youth who have been exposed to major life stressors. Wyman and colleagues (1993) investigated the correlates of positive future orientation with aspects of socioemotional adjustment in a group of 9- to 11-year-olds, 60% of whom were youth of color (45% African American). Cross-sectional analyses revealed significant associations between positive future orientation and adaptive social-emotional functioning. Longitudinal follow-up showed that positive future orientation predicted greater social-emotional functioning 2-3 years later (Wyman et al., 1993), suggesting that having positive expectations for the future may be a promotive factor for urban youth.

Future orientation has also been demonstrated to be a mediator between adverse events, such as violence exposure, and violent behaviors in adolescents. Brumley and colleagues (2017) explored this relation in 14,800 adolescents ($M_{\text{age}} = 15.93$) using data from the National Longitudinal Study of Adolescent to Adult Health. Consistent with their hypotheses, future orientation was found to mediate the relation between adverse events on violent behavior, suggesting that decreases in future orientation may partially explain relations between adverse events and youths' violence behavior. Within a sample of 123 urban seventh and eighth grade

students (11.5% African American), a lack of future orientation partially mediated the relation between witnessing violence and delinquent behaviors (Allwood et al., 2012). Similarly, witnessing violence decreased the level of future orientation, and lower levels of future orientation were related to higher levels of posttraumatic stress symptoms.

In a longitudinal study focusing on a nationally representative sample of adolescents ($n = 6,504$), Barrett (2007) tested future orientation as a mediator in the relation between exposure to violence and delinquent behaviors. Exposure to violence was defined as whether participants had ever seen someone shot or stabbed. The first wave of data collection took place when adolescents were in grades 7 through 12 and follow-up occurred one year later. Unlike results from Brumley et al. (2017), future orientation at wave 1 was found to significantly predict adolescent delinquency at wave 2; however, future orientation did not mediate the relation between exposure to violence and delinquent behaviors (Barrett, 2007). Thus, the relation between violence exposure and adolescent delinquency was not explained through decreased adolescents' future orientation; rather, exposure to violence exerted its effects either directly or through a different mediating factor.

Victimization and posttraumatic stress symptoms

Victimization is a chronic stressor that has been conceptualized as an interpersonal trauma that often occurs within peer and dating interactions in adolescence (Hong et al., 2020; Storch & Esposito, 2003). When youth are victimized, they may have difficulty regulating emotions and can experience physiological arousal, such as an increased heart rate and sweating (Iffland et al., 2014). Further, cross-context victimization, or victimization that occurs across multiple settings, is predictive of poor mental health outcomes and trauma symptoms, including feelings of fear (Turner et al., 2011). Being victimized in multiple places (i.e. both off and on school grounds by

a partner) is associated with a vulnerability to re-experiencing the victimization in multiple contexts (Finkelhor et al., 2009).

Dating violence can be conceptualized as a traumatic stressor that involves interpersonal betrayal across contexts. Of importance, early dating relationships often emerge within peer group contexts (Connolly & McIsaac, 2009). Not only do peer groups establish norms for dating behavior, they also provide information about intimate relationships (Landor et al., 2011). However, it is important to note that these early romantic relationships differ from peer relationships because they represent the first experiences of “sexuality and passion,” which is construed differently by youth than a normal platonic relationship (Connolly & McIsaac, 2009).

Youth who are exposed to various types of peer victimization are at an increased risk for emotional and psychiatric problems (DaSilva & Keeler, 2017). Further, previous research suggests that experiences involving interpersonal betrayal are especially predictive of posttraumatic symptom development (Ozer et al., 2003). Thus, adolescents who experience different forms of victimization may be particularly susceptible to posttraumatic outcomes. To the author’s knowledge, there have only been four studies that have explored relations between DVV and trauma outcomes in adolescents. However, in a related line of literature, a handful of studies have explored associations between peer victimization and traumatic outcomes.

Relations between peer victimization and posttraumatic stress symptoms

Peer victimization has been defined as physical, verbal, and/or psychological/relational abuse towards victims by a perpetrator (Olweus, 1994). Several cross-sectional studies have assessed relations between peer victimization and trauma outcomes among adolescents (Crosby et al., 2010; Hong et al., 2020; Idsoe et al., 2012; Mynard et al., 2000; Storch & Esposito, 2003). Of these studies, only Storch and Esposito (2003) focused on the experiences of African

American and Hispanic youth who lived in under-resourced communities ($n = 201$; age range 10-13) and attended an urban middle school. Study findings showed a positive relation between peer victimization and posttraumatic stress symptoms. Another study included a U.S. rural sample of 244 primarily European American early adolescents ($n = 244$; age range 10-14) and found that physical, verbal, and relational victimization were positively correlated with posttraumatic stress symptoms (Crosby et al., 2010).

Three studies focused on Canadian or European adolescents, and in contrast to studies of American early adolescents, also included youth in mid- and/or late adolescence (Hong et al., 2020; Idsoe et al., 2008; Mynard et al., 2000). Among 963 Norwegian adolescents, ages 14 and 15, peer victimization was associated with PTSD symptoms including intrusive memories and avoidance behavior (Idsoe et al., 2008). In a sample of 331 adolescents in grades 8 to 11 from the United Kingdom, a strong association was found between high levels of peer victimization and posttraumatic stress symptoms (Mynard et al., 2000). Lastly, Hong and colleagues (2020) explored peer victimization through a trauma lens, making the connection that in both the trauma and peer victimization literature, there is an emphasis on the frequency, duration, and pervasiveness of the event. They explored this connection in a sample of 879 youth ages 12-18 from schools in Canada. Youth were only included if they indicated that they had been victimized within the last year. While this study did not exclusively test posttraumatic symptom outcomes, they did find that frequency, duration, and pervasiveness of peer victimization were associated with increased levels of distress in adolescents.

Across these studies, a substantial percentage of adolescents reported high rates of exposure to trauma symptoms. For example, Idsoe et al. (2008) found that among Norwegian adolescents, ages 14 and 15, nearly 28% of boys and 41% of girls had PTSD scores within the

clinical range. Further, in a sample of youth in grades 8 to 11 from the United Kingdom, 39.8% of the male participants and 42.6% of the female participants reported clinically significant symptoms of posttraumatic stress (Mynard et al., 2000). Overall, these studies highlighted the connection between high levels of peer victimization experiences and elevated rates of trauma symptoms.

Relations between dating violence victimization and posttraumatic stress symptoms

DVV is another example of a traumatic stressor that involves interpersonal betrayal. Further, dating violence often occurs repetitively and may occur in multiple forms (physical, psychological), increasing the likelihood of developing posttraumatic stress symptoms. In fact, trauma symptoms are one of the most common consequences of experiencing dating violence (Golding, 1999). However, while this connection has been well established in the adult literature (Dutton et al., 2006; Golding, 1999; Mechanic et al., 2008), it has been understudied in adolescents.

Four studies were found that examined relations between DVV and trauma symptoms in high school students (Callahan et al., 2003; Fawson et al., 2017; Rancher et al., 2019; Wolitzky-Taylor et al., 2008). In a sample of primarily African American students ($n = 190$), 46% of youth reported being a victim of dating violence. Controlling for demographic variables, a significant association emerged between DVV and higher levels of posttraumatic stress for girls but not boys (Callahan et al., 2003). Wolitzky-Taylor et al. (2008) found that associations between dating violence victimization and PTSD symptoms was stronger among older (15- to 17-year-olds) as compared to younger (12- to 14-year-olds) adolescents. In contrast, Rancher and colleagues (2018) found a positive association between DVV and trauma symptoms including re-experiencing, avoidance, and hyperarousal among 14- to 17-year-olds ($n = 108$), with no

differences in the strength of this relation across gender or age. Finally, positive relations were found between dating violence victimization (physical, sexual, and psychological) and mental health symptoms, including posttraumatic stress among 589 heterosexual male adolescent high school students (Fawson et al., 2017).

Gender and Age Differences. Gender and age differences in relation to the prevalence of posttraumatic stress symptoms and DVV are mixed. Most studies examining the prevalence of DVV have found little to no difference in the rates between boys and girls (Foshee, 1996; Mynard et al., 2000) whereas Ybarra and colleagues (2016) found girls self-reported higher rates of victimization than boys.

Some studies have found gender differences such that girls endorse higher levels of posttraumatic stress symptoms than boys (Callahan et al., 2003; Crosby et al., 2010; Garza & Jovanovic, 2017). Gender differences may be due to the type of trauma, since females are more likely to experience interpersonal violence such as sexual assault and child sexual abuse (Tolin & Foa, 2006). Interpersonal traumas impact social support (i.e. if the perpetrator is a friend or partner), and may cause more self-blame (Alisic et al., 2014). Some research suggests that older adolescents are more likely than younger adolescents to exhibit symptoms of PTSD (Ybarra et al., 2016). One argument for this finding is that PTSD affects adolescent males differently depending on their developmental stage (Kaminer et al., 2005). Due to past findings regarding gender differences in posttraumatic stress symptoms, the current study tested the additional moderating role of gender.

Limitations of the dating literature. This literature highlights the complex relation between DVV and posttraumatic stress symptoms. However, the mixed findings of cross-sectional studies examining DVV as a predictor of posttraumatic stress symptoms highlights the

need for additional research in this area (Callahan et al., 2003). The majority of studies that exist are limited in that they are mainly descriptive in nature and are drawn from cross-sectional data. There is also a paucity of studies that focus on ethnic and racial minority samples, including African American adolescents. Further, more generally, studies that have focusing on dating violence victimization have not typically controlled for exposure to violence or previous trauma (Callahan et al., 2003; Fawson et al., 2017). Overall, there is a need for research exploring longitudinal relations between DVV and posttraumatic stress among community samples and during the developmental period of early adolescence. From a prevention standpoint, a better understanding of the development of DVV during this period may provide evidence for universal prevention programming, especially in determining the best time to begin programs (Goncy et al., 2018).

Conclusion

The literature review for the present study focused on the longitudinal relation between DVV and posttraumatic stress symptoms. Theoretical models that informed the hypothesized relations between study variables included stress response theory, theory of shattered assumptions, and the phenomenological variant of ecological systems theory. In this study, I tested the following two potential roles of positive outlook: (a) as a protective factor that moderated the relations between DVV and trauma symptoms, and (b) as a mediator that was an underlying cause of the relations between DVV and trauma symptoms. Empirical research has shown that a related construct, future orientation, serves as a protective factor in ameliorating the relation between violence exposure and mental health outcomes (So et al., 2016). Relatively, few studies tested longitudinal relations between DVV and posttraumatic stress symptoms among African American youth during early adolescence. The current study addresses gaps in the

literature by assessing: (a) the associations between DVV at Time 1 and posttraumatic stress symptoms at Time 2, (b) the potential moderating effect of future orientation on the relations between dating violence victimization and posttraumatic stress symptoms, and (c) the potential mediating effect of future orientation on the relations between dating violence victimization and posttraumatic stress symptoms in African American adolescents.

The Present Study

Literature in this area emphasizes the importance of understanding the factors associated with dating violence in adolescence. This is particularly important as DVV is associated with a host of adverse outcomes such as mental health symptoms, risky behavior, and academic difficulties (CDC, 2018; Lormand et al., 2013). Thus, it is important to identify factors that can ameliorate the influences of DVV in early adolescence, as youth are beginning to establish dating norms during this developmental period (Connolly & McIsaac, 2009). Factors such as positive outlook have been explored in the developmental period of adolescence and has been identified as a potential moderator for relations between exposure to violence and risky behaviors (So et al., 2018; Stoddard et al., 2011; Wyman et al., 1993). However, positive outlook's influence on posttraumatic stress symptoms has not been examined. Given the prevalence of dating violence and its association to adverse outcomes, it is important to examine the relation between these factors.

The present study addressed several gaps in the extant literature by (a) establishing the relation between dating violence victimization and posttraumatic stress outcomes in a middle school sample over three months, and (b) exploring the moderating and mediating effect of positive outlook on the relation between dating violence victimization and posttraumatic stress symptoms across two time points, and (c) exploring the moderating effect of gender as a three-

way interaction between dating violence victimization, positive outlook, and posttraumatic stress symptoms. Further, the current study used longitudinal data spanning three months and focuses on African American youth living in low-income urban neighborhoods.

Study Hypotheses

The three models tested and hypotheses for each are detailed in this section.

H1: The relation between dating violence victimization at time 1 and posttraumatic stress symptoms at time 2, three months later, will be moderated by positive outlook at time 1.

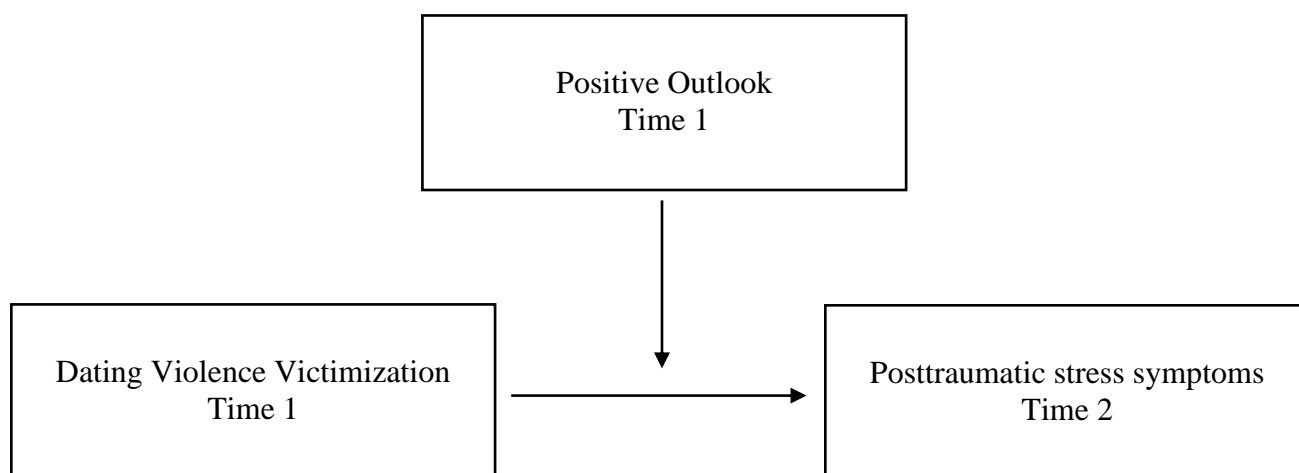


Figure 1. Hypothesized relation between dating violence victimization and posttraumatic stress symptoms moderated by positive outlook

H2: Dating violence victimization at time 1 will not be associated with posttraumatic stress symptoms at time 2, three months later, via positive outlook at time 1

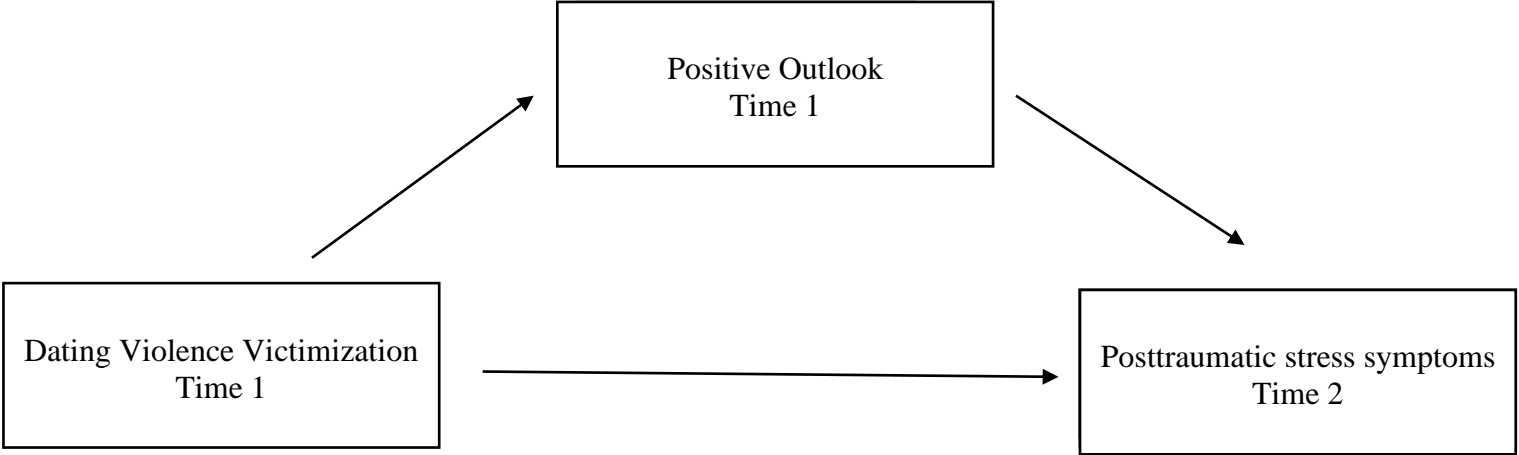


Figure 2. Hypothesized relations between dating violence victimization and posttraumatic stress symptoms via positive outlook.

H3: The analysis of the three-way interaction of DVV x Positive Outlook x Gender will be exploratory.

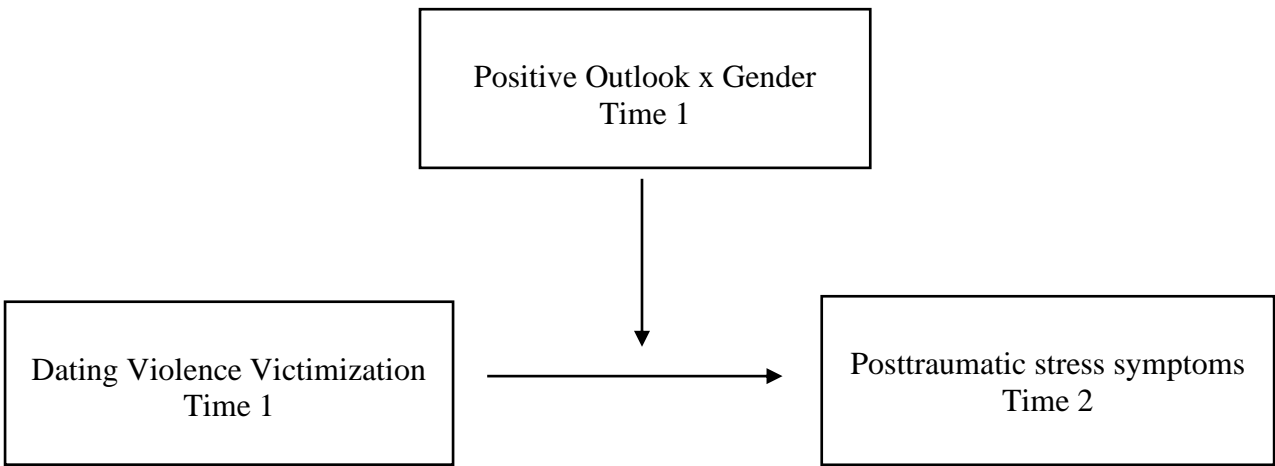


Figure 3. Exploratory moderation model to examine the degree to which the strength of the moderating effect of positive outlook on the relation between DVV and posttraumatic stress symptoms varies by gender.

Method

Setting and Participants

Analyses were conducted on data collected between 2010 and 2018 from students at three public, urban middle schools as part of a multiple baseline design study that evaluated a school environment intervention to prevent youth violence (Farrell et al., 2018). A random sample of students in sixth, seventh, and eighth grade were recruited during the first year of the project. Each year a new sample of sixth grade students were recruited along with new seventh and eighth grade students to replace the students that left the school or withdrew from the project. A missing by design approach was implemented to reduce participant fatigue such that students were randomly assigned to only complete two of four waves each year they participated. This design also results in data that are missing completely at random (MCAR). Planned missingness does not impact the precision of parameter estimates (Brown et al., 2000), and can even lead to a higher quality of data (Little, 2013).

The original sample consisted of 1,124 students. All participants who were not African American were excluded, leaving a final sample of 824 students (52% female) from sixth, seventh, and eighth grade. The sample had 283 sixth graders, 249 seventh graders, and 292 eighth graders. Only youth who reported being in a dating relationship at Time 1 were included in the present study.

Procedures

Study procedures were approved by a university Institutional Review Board. Written parental permission and student assent was obtained prior to data collection. Student participation was voluntary, and they were told they could end participation or skip question at any time. Participants completed self-administered audio-assisted measures on computers, which

allowed them to hear and read the questions. Participants completed measures both at school during the academic year and at their homes during the summer.

Measures

Trauma-related distress. The Checklist of Children's Distress Symptoms (CCDS; Richters & Martinez, 1990) was used to assess trauma-related distress. This 28-item measure examines the impact of long-term violence exposure on children's emotional and psychological well-being in a community violence project (Martinez & Richters, 1993). Items correspond to the *Diagnostic and Statistical Manual of Mental Disorders, Third Edition* (American Psychiatric Association, 1987) diagnostic criteria for PTSD symptom clusters of re-experiencing, avoidance, and hyperarousal. Each item was rated on a 5-point scale (1 = *never*, to 5 = *most of the time*). Previous literature has found higher scores on the Checklist of Children's Distress Symptoms to be significantly related to exposure to violence (Howard et al., 2002). Cronbach's alpha was .94

Dating violence victimization. The Dating Violence Scale (Foshee et al., 1996) was used to assess dating violence victimization. If youth indicated that they had a boyfriend/girlfriend in the last 3 months, they were asked whether "a boyfriend/girlfriend has done the following things to you in the last 3 months (not counting instances of self-defense). In order to measure victimization, two subscales were used. The nine-item Physical Victimization (e.g., "How many times has a boyfriend or girlfriend punched or hit you with something that could hurt?") and four-item Psychological Victimization (e.g., "How many times has a boyfriend or girlfriend said things to hurt your feelings on purpose?"). Frequency of these behaviors was measured using a 4-point Likert scale (0 = *never*, 1 = *1 to 3 times*, 2 = *4 to 9 times*, 3 = *10 or more times*). Higher scores indicate higher levels of victimization. Cronbach's alphas for the Physical and Psychological Victimization scales were .89 and .63 respectively.

Positive Outlook. Positive outlook is measured by the Positive Outlook – Individual Protective Factors Index (Phillips & Springer, 1992). This 6-item scale measures an individual’s outlook for the future. Respondents are asked to indicate how closely statements match their feelings. Sample items include, “I will probably die before I am 30,” and, “I think I will have a nice family when I get older.” Respondents checked “YES!” if the statement is very true for them; “yes” if it is somewhat true; “no” if it is somewhat false and “NO!” if it is very false. A maximum score of 24 indicates a high positive outlook, whereas a minimum score of 6 indicates a negative outlook. Cronbach’s alpha was .68.

Covariates. Covariates include intervention condition, age, exposure to community violence (i.e., witnessed community violence), and a composite score of dating aggression. Due to the likelihood that perpetration and victimization co-occur (Leary et al., 2008), I controlled for dating aggression, which was assessed with the Dating Violence Scale (Foshee et al., 1996), and included 10 items assessing physical (e.g., “Pushed or shoved him or her”) and psychological (e.g., Did something just to make him or her jealous). Participants rated items on a scale of 0 = *never* to 3 = *10 or more times*. Higher scores indicated higher levels of dating aggression.

Data Analysis Plan

Data were cleaned using IBM SPSS Version 26 software (IBM Corp, 2013). Prior to running the primary analyses, the data were assessed for assumptions of normality, and no variables were found to be skewed or kurtotic (i.e., >2 or <-2). Using SPSS PROCESS (Hayes, 2013), bootstrapping analyses were conducted to examine: a) the moderating role of positive outlook on relations between DVV and posttraumatic stress symptoms (Model 1) and b) the indirect effect of DVV on posttraumatic stress symptoms via positive outlook (Model 4). These analyses used 5000 bootstrapped samples with 95% confidence intervals. To determine the

significance of the moderating and mediating effect, the confidence intervals were examined to determine if the confidence interval did not include a zero. For each of the analyses, the covariates included intervention condition, age, and a composite score of dating aggression, which, based on previous studies, was dichotomized. All covariates were assessed at Time 1.

Hierarchical regression analyses were conducted to examine the possibility that the strength of the moderating effect of positive outlook on the relation between DVV and posttraumatic stress symptoms varied based on gender. Regression models included main effects and interaction effects for DVV x positive outlook, DVV x gender, and DVV x gender x positive outlook. Separate analyses were conducted for each model. For each analysis, the predictor was DVV at Time 1, and the dependent variable was posttraumatic stress symptoms at Time 2, controlling for posttraumatic stress symptoms at Time 1.

Results

Descriptive Statistics

Descriptive statistics, including means, standard deviations, and correlations among study variables, are reported in Table 1. DVV at time 1 was negatively associated with positive outlook at time 1 ($r = -.16, p < .01$) and positively associated with posttraumatic stress symptoms at time 2 ($r = .14, p < .01$). Lastly, positive outlook at time 1 was negatively associated with posttraumatic stress symptoms at time 2 ($r = -.17, p < .01$). As determined by a one-way ANOVA, the frequency of posttraumatic stress symptoms differed significantly by gender $F(1,637) = 44.53, p < .001$, with females endorsing a higher frequency of symptoms than males. However, neither positive outlook ($p = .94$) nor DVV ($p = .73$) significantly differed on the basis of gender. 56% of adolescents reported experiencing DVV at time 1. The most endorsed items on the dating violence scale were, “threw something at you that could hurt (94%)”, “punched or

hit you with something that could hurt (92%)”, and “threatened to hit or throw something at you” (90%).

Table 1

Means, Standard Deviations, and Correlations for Dating Violence Victimization, Positive Outlook, and Posttraumatic Stress Symptoms

	1	2	3	4
1. Dating Violence Victimization (T1)	-			
2. Positive Outlook (T1)	-.16**	-		
3. Posttraumatic Stress Symptoms (T1)	.26**	-.17**	-	
4. Posttraumatic Stress Symptoms (T2)	.22**	-.17**	.51**	-
<i>M</i>	.56	20.30	1.75	1.96
<i>SD</i>	.50	3.72	.73	.77

** $p < .01$

Relations Between Dating Violence Victimization, Positive Outlook, and Posttraumatic Stress Symptoms

Models were run using SPSS Version 26 (IBM Corp, 2013) to assess the potential moderating and mediating effect of positive outlook on the relation between DVV at Time 1 and posttraumatic stress symptoms at Time 2, three months later. An additional analysis was conducted to examine the additional moderating effect of DVV x positive outlook x gender. Covariates in these analyses included intervention condition, age, and a composite score of dating aggression.

Longitudinal Relations Between Dating Violence Victimization and Posttraumatic Stress Symptoms. A regression model was run to determine the longitudinal relation between DVV and posttraumatic stress symptoms and are shown in Table 2. The overall model was significant, $R^2 = .28$, $F(6, 486) = 30.82$, $p < .001$. However, the main effect of DVV on posttraumatic stress symptoms was not significant, $\beta = .03$, $t(486) = .73$, CI 95% [-.15, .33], suggesting that DVV at time 1 did not predict posttraumatic stress symptoms at time 2.

Table 2.

Longitudinal Relations Between Dating Violence Victimization and Posttraumatic Stress Symptoms

Variables	B	β	t	95% CI		p	R ²
				Lower	Upper		
<i>Posttraumatic Stress Symptoms (T2; Constant)</i>							.28
Intervention Condition	.02	.01	.35	-.11	.15	.73	
Sex	-.13	-.09	-2.12	-.25	-.01	.03	
Witnessing Community Violence	-.00	-.00	-.04	-.10	.09	.97	
Dating Perpetration	-.01	-.01	-.20	-.15	.12	.85	
Posttraumatic Stress Symptoms (T1)	.47	.49	11.43	.40	.56	.00	
DVV	.09	.03	.73	-.15	.33	.47	

DVV = Dating Violence Victimization

Moderation models. The first model assessed the potential moderating effects of positive outlook at Time 1 on the relation between DVV at time 1 and posttraumatic stress symptoms at time 2, controlling for posttraumatic stress symptoms at time 1. DVV at time 1 did

not predict increased in posttraumatic stress symptoms at Time 2 ($b = .11$, 95% CI: [-.03, .26]). Further, positive outlook did not moderate the relation between DVV at time 1 and posttraumatic stress symptoms at Time 2 ($b = -.02$, 95% CI: [-.05, .02]).

Another model was run to assess the degree to which the moderating effect of positive outlook on the relation between DVV at Time 1 and posttraumatic stress at Time 2 varied based on gender at Time 1. The test of the overall model was significant $F(11, 467) = 16.51$, $p < .001$, $R^2 = .28$. However, there was no main effect of DVV at Time 1 on posttraumatic stress symptoms at Time 2 ($b = .07$, $t(467) = .93$, $p = .35$). The DVV x positive outlook x gender interaction was not significant ($p = .13$).

Mediation model. This model assessed the potential mediating effects of positive outlook at time 1 on the relation between DVV at Time 1 and posttraumatic stress symptoms at Time 2, controlling for posttraumatic stress symptoms at Time 1. DVV at Time 1 did not predict increased positive outlook at Time 2 ($\beta = -.42$, 95% CI: [-1.20, .36]). Additionally, positive outlook at Time 1 did not predict changes in posttraumatic stress symptoms ($\beta = -.02$, 95% CI: [-.03, .00]). DVV at Time did not a predict increased posttraumatic stress symptoms at Time 2, after controlling for positive outlook at Time 1 ($\beta = .06$, 95% CI: [-.07, .20]). Approximately 53% of the variance in posttraumatic stress symptoms at Time 2 was accounted for by the predictors ($R^2 = .53$). However, the range of estimated values for the indirect effect of DVV on posttraumatic stress symptoms included zero, indicating that no mediational effect was present ($\beta = .01$, 95% CI: [-.01, .03]).

Discussion

The current study examined the short-term longitudinal relations between DVV and posttraumatic stress symptoms in a sample of middle schoolers. The potential moderating and

mediating role of positive outlook were also examined. These associations were tested in a sample of African American youth living in a low-income, urban neighborhoods. For the present study, three models were tested. The first model assessed the extent to which positive outlook at Time 1 moderated the relation between DVV at time 1 and posttraumatic stress symptoms at time 2. The second model assessed the degree to which the DVV x positive outlook interaction varied by gender. The final model assessed indirect relation between DVV and posttraumatic stress symptoms via positive outlook. Study findings showed no significant relation between DVV at Time 1 and posttraumatic stress symptoms at Time 2. Neither the DVV x positive outlook nor the DVV x positive outlook x gender interactions were significant. Lastly, no indirect effect for the relation between DVV at time 1 and posttraumatic stress symptoms at time 2 was found via positive outlook at time 1.

The present study contributed to the existing literature in several ways. Although DVV is theoretically and empirically linked to posttraumatic stress symptoms, past studies exploring this relation have mostly been cross-sectional in nature. These cross-sectional studies have shown a positive association between DVV and levels of posttraumatic stress symptoms (Callahan et al., 2003; Fawson et al., 2017; Rancher et al., 2019; Wolitzky-Taylor et al., 2008). Additionally, these studies have been comprised of high school students. Furthermore, to the author's knowledge, only one study has focused on a sample of primarily African American students, although this study was also within a high school sample (Callahan et al., 2003). No prior studies have explored the potential moderating or mediating role of positive outlook on the relation between DVV and posttraumatic stress symptoms. However, various studies have explored how a related construct, future orientation, might play a promotive or protective role in the relation between a potential stressor and mental health outcomes (McCabe & Barnett, 2000; Wyman et

al., 1993, So et al., 2016, Hamilton et al., 2016, Zhang et al., 2009). Finally, even though early adolescence is a developmental period during which youth form romantic relationships and experience DVV, little research has examined associations between these constructs in early adolescence.

Descriptive Analyses

According to self-report, approximately 56% of adolescents in the current study experienced DVV in the past 3 months at time 1. While it is difficult to compare prevalence rates of dating violence victimization due to context, the prevalence rates in the current sample are at the higher end of the prevalence rates observed in prior studies of minority youth living in low-income contexts. For example, in prior studies the prevalence of dating victimization among adolescents ranged from 20% to 53% (Goncy et al., 2017).

DVV at time 1 was positively associated with trauma symptoms at time 2. Despite there being a paucity of longitudinal research on the relation between these constructs, these results align with previous cross-sectional research (Callahan et al., 2003; Fawson et al., 2017; Rancher et al., 2019; Wolitzky-Taylor et al., 2008). Additionally, DVV at Time 1 was negatively associated with positive outlook at Time 1. Furthermore, positive outlook at Time 1 was negatively correlated with trauma symptoms at Time 2. As this is the first study to examine the relation between DVV, positive outlook, and trauma symptoms, it is difficult to directly compare these findings to the current literature. However, these findings align with closely related literature on relations between exposure to violence and future orientation, namely that exposure to violence is negatively associated with levels of future orientation and higher levels of future orientation is negatively correlated with posttraumatic stress symptoms (Hong et al., 2019).

Longitudinal Relations between DVV and Posttraumatic Stress Symptoms

Expected predictive relations between DVV at time 1 and posttraumatic stress symptoms at time 2 were not found. As this is the first study to examine prospective relations between DVV and trauma symptoms, findings cannot be compared to other longitudinal findings. However, the present results are inconsistent with research demonstrating a positive concurrent association between DVV and trauma symptoms in high school students (Callahan et al., 2003; Fawson et al., 2017; Rancher et al., 2019; Wolitzky-Taylor et al., 2008). Additionally, these results contradict theoretical models which posit that individuals who undergo repeated instances of a traumatic stressor (i.e. dating violence) are more likely to develop posttraumatic stress symptoms.

One potential explanation for these results may be that, due to existing stressors, these individuals could already be experiencing higher than normal trauma symptoms at Time 1, so significant increases in posttraumatic stress symptoms may not be seen in a 3-month time span. Although covariates included witnessed community violence, it is possible that youth experienced incidents of peer or community-based victimization as well. Additionally, the short duration of early adolescent romantic relationships, lasting on average a few weeks to a few months, must be acknowledged when interpreting study findings (Connolly & McIssac, 2009). The current study did not assess the number of dating partners that participants had in the past three months or whether they experienced dating violence with single or multiple partners. Data analytic techniques such as autoregressive cross-lagged models may be helpful in understanding the covariation in changes between DVV and posttraumatic stress symptoms and their stability over longer periods of time. Further, instead of measuring the direct impact of DVV on mental health, some studies have used latent class analysis (LCA) to identify classes of youth that may be more susceptible to developing trauma-related distress (Goncy et al., 2016). In a primarily

African American sample of early adolescents, Gonyea and colleagues (2017) identified five different patterns of dating aggression and victimization: uninvolved, mainly victims, mainly aggressors, psychologically aggressive victims, and aggressive victims. Findings suggest that adolescents in classes including victimization reported more trauma-related distress than adolescents who were uninvolved or primarily engaged in aggressive behavior. Further, adolescents who engaged in aggression and were victimized experienced similar trauma-related distress as did adolescents who were primarily victims. This suggests that adolescents can be traumatized in cases where they are primarily victims or in relationships characterized by reciprocal dating aggression and victimization. Thus, posttraumatic stress outcomes may be more strongly linked to specific subgroups of adolescents who exhibit characteristics of both aggressor and victim within a romantic relationship and using analyses such as LCA may be useful in future research to test these relations. Additionally, instead of looking exclusively at dating violence, it may be important to consider the risk of poly victimization, or the idea that adolescents who have been victimized in multiple domains may be particularly susceptible to victimization within a romantic relationship, considering that past research has linked poly victimization to an increase in trauma symptoms (Finkelhor, Ormrod, & Turner, 2007).

The Moderating Role of Positive Outlook

Contrary to prediction, hypotheses that positive outlook at time 1 would moderate the relations between DVV at time 1 and posttraumatic stress symptoms at time 2 were not supported. In addition, the DVV x positive outlook interaction did not vary by gender. As this is the first study to examine the potential moderating role of positive outlook on the relation between DVV and posttraumatic stress symptoms or the degree to which the DVV x positive outlook interaction varied by gender, further research is needed to explore these

relations. However, the present results are inconsistent with related longitudinal research demonstrating the moderating role of future orientation between victimization and depressive symptoms (Hamilton et al., 2016). However, depression may be more closely connected to future orientation than posttraumatic stress symptoms. Future orientation is about the ability to envision and look towards the future, while depression is often characterized by the inability to do so. Thus, it may be important to consider the potential function of positive outlook within the PVEST model and consider other protective mechanisms that may attenuate the relation between DVV and posttraumatic stress symptoms. It is of particular importance to identify the contextual and environmental correlates that may influence positive outlook's development. For example, factors such as familial support may be an important protective mechanism to explore in future research, as it has been shown to impact one's future orientation (Trommsdorff, 1983, Nurmi, 1987). However, these studies are limited in that they have only assessed the development of future orientation in white youth, pointing to the need to explore this construct in minority populations.

While future orientation has been defined as a multidimensional construct, studies conducted with urban, minority youth have generally used measures that only cover one dimension of future orientation, such as optimism towards the future (Werner & Smith, 1982, Wyman et al., 1993). Given the multidimensional nature of future orientation, instruments assessing only one dimension of this construct might be missing important proponents. While our construct of future orientation assessed life expectancy, and future family, the scale in the current study does not explicitly ask about adolescent's outlook toward romantic relationships. Considering that many early adolescents are actively engaging in romantic relationships, it may be important for future measures to cover this construct.

The Mediating Role of Positive Outlook

In line with study hypotheses, positive outlook at time 1 did not mediate the relation between DVV at Time 1 and posttraumatic stress symptoms at time 2. These findings suggest that there may be other mechanisms at work that might help to explain the relation between DVV and posttraumatic stress symptoms. While previous work has explored the potential mediating role of future orientation, results are mixed. For example, some studies have found future orientation to fully mediate the relation between traumatic events and various outcomes (i.e. mental health symptoms and perpetration of violence; Zhang et al., 2009, Brumley et al., 2017), while others have not found significant results (Barrett, 2007). In order to clarify the current study's results, further longitudinal research is warranted. As previously stated, future research should consider the PVEST model and factors such as familial support as possible mediating factors in the relation between DVV and posttraumatic stress outcomes.

Limitations

While the present study had several strengths, it is not without limitations. First, posttraumatic stress symptoms were assessed for the current study by the *Checklist of Children's Distress Symptoms* (CCDS; Richters & Martinez, 1990). However, the CCDS is not a diagnostic measure for posttraumatic stress disorder as set by the Diagnostic and Statistical Manual of Mental Health Disorders (DSM-5). Instead, it is based off the DSM-3. While there has been no consistent measure of posttraumatic stress symptoms in previous studies, many have included measures that have modules that mirror the DSM-5 criteria for posttraumatic stress disorder. For example, studies have used the *Trauma Symptom Checklist for Children* (e.g. Callahan et al., 2003), the PTSD module of the NSA survey (e.g. Wolitzky-Taylor et al., 2008), and the *Los Angeles Symptom Checklist* (e.g. Rancher et al., 2019). In other words, despite a lack of

consistent measurement, most researchers have used questionnaires that more closely align with more recent versions of the DSM.

Second, the data was collected over three months, which, for a longitudinal study may be too short of a time period to observe changes in the study variables. While advantageous because this short time span might capture the relative instability of dating relationships that characterize early adolescence, trauma symptoms due to dating violence may take longer to fully develop. It may be that a longer period of time is necessary to detect change in relations between DVV and posttraumatic stress symptoms. Thus, studies are needed that examine prospective relations between DVV and posttraumatic stress symptoms over longer periods of time.

Another limitation of the present study is that due to the homogenous nature of the current sample, culture and context should be taken into account when interpreting study findings. While I controlled for various factors (i.e. exposure to community violence and dating aggression) that may influence posttraumatic symptoms, the importance of other potential factors should not be ignored. According to the phenomenological variant of ecological systems theory (PVEST; Spencer, 2007, 1995), there are many unique challenges that ethnically diverse youth encounter that may influence potential outcomes. Challenges such as racial discrimination, both interpersonal and structural, or economic disadvantage are just two examples of environmental stressors that may directly impact youth. Therefore, considering the ways in which these factors might have an influence on how individuals interpret and internalize dating violence victimization is crucial to understanding their posttraumatic stress outcomes. While the current study does not contain such variables, future researchers should take them into consideration when measuring outcomes within this population.

Furthermore, while the Dating Violence Scale (Foshee et al., 1996) assessed important forms of dating violence (i.e., physical and psychological), only 13 items were used to assess these constructs and we were not able to measure sexual dating violence based on concerns from schools from which our sample was drawn. Additionally, the current study did not distinguish between the sexual orientation of the couples, thus pointing to the need to examine the relations between DVV and posttraumatic stress symptoms among a more diverse group of adolescents. For instance, past research suggests that youth who identify as lesbian, gay, or bisexual are at a higher risk for experiencing multiple forms of dating violence (i.e. physical, psychological, cyber, and sexual violence) (Dank, Lachman, Zweig, & Yahner, 2014).

Finally, the present study measured dating violence as a composite score of both physical and psychological violence. This decision is based on previous research by Gonyea et al. 2016, who demonstrated that in the Dating Violence Scale, psychological and physical violence did not appear to be distinguishable as two separate constructs. However, it is possible that, within the current sample, there could be potential differences in severity between physical and psychological violence. Previous research has traditionally distinguished between the various constructs of dating violence, with most exploring differences between physical and sexual violence (e.g. Wolitzky-Taylor et al., 2008, Rancher et al., 2019). Thus, it is a notable strength that our study measured psychological violence. Despite this, it is important for future research to address potential differences in severity between the three subtypes of dating violence and the potential impact they might have on posttraumatic stress symptoms.

Implications and Future Directions

DVV is an important risk factor for adverse mental health outcomes, particularly posttraumatic stress disorder. While the present study did not find a longitudinal association

between DVV and posttraumatic stress symptoms over three months, there is theoretical and empirical evidence that suggests there might be an association. Thus, the lack of significant results in the present study may be attributable to the uniqueness of the sample and/or length of time examined. For example, there may be cultural and contextual differences that may influence associations between DVV and posttraumatic stress symptoms in an African American population. Understanding how cultural, contextual, and environmental factors influence the relation between DVV and posttraumatic stress symptoms have important implications for intervention, particularly during early adolescence and, thus, should continue to be explored.

Future research should explore the relations between DVV and posttraumatic stress disorder over longer periods. Additionally, the current null results suggest that other protective mechanisms should be considered when interpreting the relation between DVV and trauma symptom outcomes. Distinguishing between subtypes of dating victimization (i.e. physical, psychological, or sexual) is also an important future direction. Additionally, examining longitudinal relations between study variables in representative samples would add to the literature in this area. The current study consisted of a homogenous sample of African American students in urban communities characterized by high rates of poverty and crime. Thus, it is not clear whether these findings would generalize to other populations with different socioeconomic status, race/ethnicity, or geographic location. Despite this, it is a notable strength of the study to focus more specifically on an African American sample. Finally, researchers should explore the effects that contextual and environmental factors, such as SES, and interpersonal and structural racial discrimination, have on the relation between DVV and posttraumatic stress outcomes.

Conclusion

Overall, this study highlights the need to conduct additional research to further understand the factors that may protect against the development of posttraumatic stress symptoms following DVV in early adolescence. Longitudinal relations between DVV and posttraumatic stress symptoms are not well understood, and research is needed over longer periods of time. Better understanding this relation could inform the timing and content of clinical interventions. Further, this study underscores the need to identify and assess the influence of contextual factors on the relation between DVV and posttraumatic stress symptoms such as SES and racial discrimination according to the PVEST model. While it is a strength of the current study to focus on youth living in low-income, urban areas, taking these factors into account may reveal relations between trauma outcomes and specific subtypes of dating violence (e.g. physical and psychological) that may serve to inform intervention approaches such as trauma-informed care. While the current findings were not anticipated based on prior literature and theory, they emphasize the continued need to explore longitudinal relations between DVV and posttraumatic stress symptoms, while considering the influence of environment and context.

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Appendix A

Checklist of Children's Distress Symptoms

The following questions concern your feelings and behaviors during the past six months. Please read each question carefully and answer it to the best of your knowledge.

How often have you done or felt the following things in the past 6 months?

How often do you have trouble paying attention or keeping your mind on things (for example, school work) even when you try very hard to pay attention?	1 = Never, 2 = seldom, 3 = once in a while, 4 = a lot of the time, 5 = most of the time
How often do you daydream at home or in class?	1 = Never, 2 = seldom, 3 = once in a while, 4 = a lot of the time, 5 = most of the time
How often do you feel like doing things that you used to like to do (like hobbies, or games, or spending time with friends)?	1 = Never, 2 = seldom, 3 = once in a while, 4 = a lot of the time, 5 = most of the time
How often do you not care about anything, even things that you used to care about?	1 = Never, 2 = seldom, 3 = once in a while, 4 = a lot of the time, 5 = most of the time
How often do you worry about being safe?	1 = Never, 2 = seldom, 3 = once in a while, 4 = a lot of the time, 5 = most of the time
How often do you watch things around you real closely in order to protect yourself from something bad happening?	1 = Never, 2 = seldom, 3 = once in a while, 4 = a lot of the time, 5 = most of the time
How often do you try very hard not to think about something bad or frightening that happened to you?	1 = Never, 2 = seldom, 3 = once in a while, 4 = a lot of the time, 5 = most of the time
How often do you have a hard time getting to sleep or staying asleep at night?	1 = Never, 2 = seldom, 3 = once in a while, 4 = a lot of the time, 5 = most of the time
How often do you feel real jumpy or scared when you hear loud noises, or when someone comes up from behind?	1 = Never, 2 = seldom, 3 = once in a while, 4 = a lot of the time, 5 = most of the time
How often do you keep remembering something upsetting, or have thoughts that kept going through your mind about something upsetting – even when you don't want to think about it or remember it?	1 = Never, 2 = seldom, 3 = once in a while, 4 = a lot of the time, 5 = most of the time

How often do you have bad dreams or nightmares?	1 = Never, 2 = seldom, 3 = once in a while, 4 = a lot of the time, 5 = most of the time
How often have you been to places, seen people, or smelled things, or heard things that reminded you of something bad that happened in the past?	1 = Never, 2 = seldom, 3 = once in a while, 4 = a lot of the time, 5 = most of the time
How often do you get really scared, sad, mad, upset, or in a very bad mood?	1 = Never, 2 = seldom, 3 = once in a while, 4 = a lot of the time, 5 = most of the time
How often do certain people, places, or things remind you of something bad that happened?	1 = Never, 2 = seldom, 3 = once in a while, 4 = a lot of the time, 5 = most of the time
How often do you avoid or try not to go to places or do things that remind you something bad that happened in the past?	1 = Never, 2 = seldom, 3 = once in a while, 4 = a lot of the time, 5 = most of the time
How often do you have a difficult time trying not to get scared, mad, sad, or upset about something that happened in the past?	1 = Never, 2 = seldom, 3 = once in a while, 4 = a lot of the time, 5 = most of the time
How often do you feel really lonely, or like you don't fit in at all, even when there are other people around?	1 = Never, 2 = seldom, 3 = once in a while, 4 = a lot of the time, 5 = most of the time
How often do you feel that nobody cares about you, or that you can't love other people?	1 = Never, 2 = seldom, 3 = once in a while, 4 = a lot of the time, 5 = most of the time
How often are you unable to feel upset (scared, sad or mad) even when something bad happens?	1 = Never, 2 = seldom, 3 = once in a while, 4 = a lot of the time, 5 = most of the time
How often are you unable to laugh or feel happy, even when something really good or funny happens?	1 = Never, 2 = seldom, 3 = once in a while, 4 = a lot of the time, 5 = most of the time
How often do you feel really nervous, scared, or afraid?	1 = Never, 2 = seldom, 3 = once in a while, 4 = a lot of the time, 5 = most of the time

How often do little things bother you or make you angry, even things that don't seem to bother other people or make them angry?	1 = Never, 2 = seldom, 3 = once in a while, 4 = a lot of the time, 5 = most of the time
How often do little things bother you—things that don't seem to bother other people?	1 = Never, 2 = seldom, 3 = once in a while, 4 = a lot of the time, 5 = most of the time
How often do you feel that you might not live very long?	1 = Never, 2 = seldom, 3 = once in a while, 4 = a lot of the time, 5 = most of the time
How often do you feel that you might not have a very happy life?	1 = Never, 2 = seldom, 3 = once in a while, 4 = a lot of the time, 5 = most of the time
How often do you feel like something bad or frightening from the past is happening all over again?	1 = Never, 2 = seldom, 3 = once in a while, 4 = a lot of the time, 5 = most of the time
Sometimes when people feel like something from the past is happening all over again it seems so real to them that they can actually see pictures of what happened in their mind, or hear sounds, or smell or feel parts of what happened even when there is nothing really there. How often does this happen to you?	1 = Never, 2 = seldom, 3 = once in a while, 4 = a lot of the time, 5 = most of the time
How often are you unable to remember something frightening from the past even when you try real hard?	1 = Never, 2 = seldom, 3 = once in a while, 4 = a lot of the time, 5 = most of the time

Appendix B Dating Violence Scale

The next section is going to ask you about your dating relationships. Please answer each question honestly.

Have you had a boyfriend/girlfriend in last 3 months?	Yes, No (if No, skip to next section), Decline to answer
<i>If yes, How long have you been dating this boyfriend/girlfriend? Or if you are no longer dating, how long <i>did</i> you date this boyfriend or girlfriend?</i>	1 = Less than 1 month, 2 = 1-3 months, 3 = 4-6 months, 4 = 6-9 months, 5 = 9-12 months, 6 = 12 or more months, 7=Decline to answer

Thinking about the last three months, how often has a BOYFRIEND OR GIRLFRIEND (someone that you dated or gone out with) done the following things to you? Only include it when the person did it to you first. In other words, don't count it if they did it to you in self-defense.

In the last 3 months, how often has a boyfriend or girlfriend done the following things to you?

Damaged something that belonged to you	1 = Never, 2 = 1-3 times, 3 = 4-9 times, 4 = 10 or more times, 5 = Decline to answer
Said things to hurt your feelings on purpose	1 = Never, 2 = 1-3 times, 3 = 4-9 times, 4 = 10 or more times, 5 = Decline to answer
Would not let you do things with other people	1 = Never, 2 = 1-3 times, 3 = 4-9 times, 4 = 10 or more times, 5 = Decline to answer
Did something just to make you jealous	1 = Never, 2 = 1-3 times, 3 = 4-9 times, 4 = 10 or more times, 5 = Decline to answer
Threatened to hit or throw something at you	1 = Never, 2 = 1-3 times, 3 = 4-9 times, 4 = 10 or more times, 5 = Decline to answer
Scratched you	1 = Never, 2 = 1-3 times, 3 = 4-9 times, 4 = 10 or more times, 5 = Decline to answer
Kicked you	1 = Never, 2 = 1-3 times, 3 = 4-9 times, 4 = 10 or more times, 5 = Decline to answer
Pushed or shoved you	1 = Never, 2 = 1-3 times, 3 = 4-9 times, 4 = 10 or more times, 5 = Decline to answer
Threw something at you that could hurt	1 = Never, 2 = 1-3 times, 3 = 4-9 times, 4 = 10 or more times, 5 = Decline to answer
Punched or hit you with something that could hurt	1 = Never, 2 = 1-3 times, 3 = 4-9 times, 4 = 10 or more times, 5 = Decline to answer

Appendix C

Positive Outlook

For each of the following sentences, please select the response that is closest to how you feel about what the sentence says. Check "YES!" if you believe very strongly that the sentence is true for you, or that it is the way you feel almost all of the time. Check "yes" if you sort of agree that the sentence is true for you, or that it is the way you feel most of the time. Check "no" if you sort of believe the sentence is false for you, or that you do not feel that way most of the time. Check "NO!" If you believe very strongly that the sentence is false, or that you almost never feel this way.

I will probably die before I am 30	1 = YES!, 2 = yes, 3 = no, 4 = NO!
I think I will have a nice family when I get older	1 = YES!, 2 = yes, 3 = no, 4 = NO!
I am afraid my life will be unhappy	1 = YES!, 2 = yes, 3 = no, 4 = NO!
Bad things happen to people like me	1 = YES!, 2 = yes, 3 = no, 4 = NO!
I think I can have a nice house with I grow up	1 = YES!, 2 = yes, 3 = no, 4 = NO!
I will probably never have enough money	1 = YES!, 2 = yes, 3 = no, 4 = NO!