YOUTH EXPOSURE TO ETHNIC-POLITICAL VIOLENCE: AN EXAMINATION OF AGGRESSION, INTERNALIZING SYMPTOMS, EMOTIONAL SENSITIZATION, AND COGNITIVE DESENSITIZATION

Catherine Zoleta

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Committee:

Eric Dubow, Advisor

Carolyn Tompsett

Meagan Docherty

ABSTRACT

Eric Dubow, Advisor

Exposure to ethnic-political violence (EPV) has been demonstrated to have serious effects on youth adjustment. Emotional and social-cognitive factors play a role in determining youth's development of internalizing symptoms and aggressive behaviours. Exploring levels of emotional and social-cognitive factors, such as emotional and cognitive desensitization to violence, may allow for discrimination between those youths who respond to EPV with internalizing symptoms or aggression.

In this study, I examined emotional sensitivity to EPV and normative beliefs supporting aggression as moderators for the relation between exposure to ethnic-political violence and youth adjustment, as measured by internalizing symptoms and aggression. Results from a sample of Palestinian and Israeli youth found significant positive relations between exposure to EPV and internalizing symptoms and aggression; positive relations between emotional sensitivity to violence and internalizing symptoms and aggression; and positive relations between normative beliefs about aggression and internalizing symptoms and aggression. Emotional sensitivity to EPV did not moderate the relation between exposure to EPV and internalizing symptoms; but normative beliefs about aggression moderated the relation between exposure to EPV and aggression, such that the effect of exposure to EPV on aggression was weakened among youth at higher levels of normative beliefs about aggression (still, youth with higher levels of normative beliefs supporting aggression were higher in aggression across levels of exposure compared to youth with low levels of normative beliefs supporting aggression). Findings are discussed in relation to theory, previous studies, and implications on intervention.

Keywords: ethnic-political violence, exposure to violence, youth adjustment, normative beliefs, emotional sensitivity, aggression, internalizing symptoms.

For my parents, Cam and Cristy

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INTRODUCTION

Violence exposure is prevalent across the globe (Anderson et al., 2017), resulting in long-term negative outcomes for developing children and adolescents (Huesmann, 2018). Youth encounter violence from different sources, such as in the media (e.g., news, television, movies, video games; Anderson et al., 2003), in the community (e.g., individual and group conflicts; Ng-Mak et al., 2004), in their homes (i.e., Ferguson et al., 2009), and in their country (i.e., violence in the context of war and military conflict; Huesmann et al., 2017, Qouta, Punamäki, & Sarraj, 2008). Early and persistent exposure to violence increases the risk for internalizing problems, such as depression, anxiety, and post-traumatic stress (PTS; McLaughlin & Lambert, 2017; Qouta, Punamäki, & Sarraj, 2008), as well as externalizing problems, such as aggression (Huesmann et al., 2017).

The social-cognitive information-processing (SCIP) model suggests that when individuals are exposed to violence, cognitive and emotional factors (such as their aggression-related social scripts, schemas, normative beliefs, and emotional reactions) are shaped, which in turn affect their interpretation of situations and their behavioral and emotional adjustment, which can include outcomes such as internalizing and externalizing problems (Huesmann, 2018; Huesmann & Kirwil, 2007). Within this model, persistent exposure to violence also can lead to desensitization to violence, which is defined as decreasing emotional and physiological arousal to repeated violent stimuli (Huesmann, 2018). Another theoretical model, the Pathological Adaptation model, similarly describes outcomes of exposure to violence through desensitization to violence (Ng-Mak et al., 2002). Ng-Mak et al. (2002) propose that exposure to violence leads to more internalized emotional symptoms at lower levels of violence; but as violence exposure becomes high, internalized symptoms begin to decrease and externalizing symptoms, particularly

aggression, increase as a result of the development of normative beliefs justifying aggression, suggesting desensitization to violence (Ng-Mak et al., 2002; Ng-Mak et al., 2004).

The SCIP and pathological adaptation models will be further described and examined in this study to explain how the impact of exposure to violence on youth aggression is shaped by cognitive and emotional factors. Many studies that are grounded in SCIP and pathological adaptation models to examine the relation of exposure to violence and individual adjustment over time often focus on mediational pathways to explain the effects of different cognitive and emotional factors (e.g., Huesmann et al., 2017). That is, exposure to violence is seen to shape social-cognitive skills (e.g., normative beliefs supporting aggression) by middle childhood (Davis-Kean et al., 2008; Guerra et al., 2003), but after middle childhood, these social cognitions become relatively stable. Boxer et al. (2011) suggested that once stabilized, these emotional and cognitive factors may serve to moderate the relation between exposure to violence and individual adjustment.

In the present study, I examined emotional sensitivity to violence and normative beliefs about aggression in a sample of Palestinian and Israeli Jewish adolescents as potential moderators of the relation between their exposure to ethnic-political violence (EPV) and both internalizing symptoms and aggressive behavior. The data came from a large, 4-wave longitudinal study (The Palestinian-Israeli Exposure to Violence Study; Dubow et al., 2010; Huesmann et al., 2017; Huesmann et al., 2018) that examined the development of Palestinian and Israeli youth from childhood into late adolescence. Prior to describing my methods and results, I review the following areas of research to place the study in perspective: the effects of exposure to violence on youth, with a particular focus on the effects of exposure to EPV; theoretical models posited to understand how exposure to violence affects youth, with a focus on the role of

emotional reactivity to violence; and empirical studies of youths' emotional and cognitive sensitization to violence.

Youths' Exposure to Violence

Youth can be exposed to violence from across a variety of contexts, such as in one's peer group, family, community, and at the larger societal level (e.g., ethnic-political conflict), through various means (i.e., direct exposure, witnessing violence in real life or in the media, and learning about violence from someone else). Studies have demonstrated high rates of youth exposure to violence within these different contexts. In a representative sample of American children and adolescents aged 10-17 years old, Finkelhor et al. (2015) found that over the course of a year, 60.8% reported witnessing at least one form of violent exposure: 40.9% had more than one direct experience of violent crime or abuse; 25.5% witnessed family and intimate partner violence or assault within the community; and 6.1% were exposed to a shooting or school-related threat. Rates of exposure to some forms of violence might be higher in poorer communities, with some studies reporting 25% of American low income, urban youth samples witnessing murder (Buka et al., 2001) and 56% witnessing a stabbing (Fitzpatrick, 1997).

Youth are vulnerable to internalizing problems as a result of violence exposure (McLaughlin et al., 2010; McLaughlin & Lambert, 2017). Research has demonstrated that increased exposure to community violence in adolescence is related to higher rates of distress, PTS symptoms, and depression (Buka et al., 2001). Further, childhood exposure to violence increases the risk for adult psychopathology and internalizing symptomology, particularly PTS symptoms, depression, and anxiety (Guerra et al., 2003; McLaughlin et al., 2017; McLaughlin & Lambert, 2017). McLaughlin et al. (2017) found that adults who reported three or more childhood exposures to family violence or abuse, and were dealing with significant current

stressors, were at 27.3% greater risk of depression than those who reported no significant childhood violence exposure. Similarly, young women with higher levels of childhood exposures to community violence were at higher risk for developing depressive symptomology (Hammen et al., 2000).

Violence exposure also has been shown to be related to externalizing problems. For example, violence is prevalent in news, television, movies, and video games, and exposure through these means has been shown to be related to increased aggressive behavior and cognitions, as well as decreased empathy and prosocial behaviors (Anderson et al., 2003, 2010). Heavy exposure to media violence during childhood is associated with violent behaviors in adolescence and adulthood, such as violent criminal behavior, partner abuse, and assault (Anderson et al., 2003; Bushman et al., 2018). Exposure to community violence is associated with increased aggressive and antisocial behaviors and cognitions (Boxer et al., 2009; Guerra et al., 2003; Huesmann et al., 2017). In a large urban sample of children and adolescents from the United States, exposure to community violence (e.g., witnessing a beating or knowing someone who was beaten) was related to more peer-related aggression and aggression-related cognitions, such as increased normative beliefs about aggression ("aggression is justified") and aggressive fantasy (e.g., imagining beating up others; Guerra et al., 2003). Also, aggression in children increases the risk for committing violence in adulthood (e.g., Dubow et al., 2016).

A Specific Focus on Exposure to Ethnic-Political Violence

There has been an increasing interest in the effects of exposure to EPV and armed conflict on youths' adjustment (Qouta & Odeh, 2005). Dubow et al. (2009) defined EPV as "forms of violence sanctioned by different influential political and social bodies based on a history of conflict between ethnic or religious groups." Dubow et al. (2009) argued that the

effects of observing and experiencing EPV are different from observing violence in other contexts, such as within the family, school, and neighborhood, as this context of violence exposure involves the persistent threat of death and violence against self, family, and friends, often through violent intimidation, bombings, and executions, and is sanctioned at the highest level of society—the government (Barber, 2008; Dubow et al., 2009; Qouta, Punamaki, & Sarraj, 2008). EPV is also experienced on a collective scale, where violence is often directed to large groups (e.g., tear gas, sound bombs, shelling) within neighborhoods and largely populated areas (Giacaman et al., 2007). Youth from these regions also encounter violence when they relocate to refugee camps, where their environment is still steeped in ethnic-political aggression, poverty, and over-crowding (Giacaman et al., 2007).

In quantifying exposure to armed conflict, UNICEF (2017) documented that in 2015, 17 million children and adolescents were forcibly displaced by violence and internal conflict in their own country, and while only 6% of the world's adolescents live in the Middle East and North Africa, 70% of adolescent deaths in 2015 were due to the EPV within these regions. The present study focuses on youth within the Palestinian-Israeli conflict, where inter-ethnic violence that has spanned for over a century within this region. Military conflict and occupations have intensified in the early 21st century, with invasions, property destruction, checkpoints, curfews, a "separation wall," etc. imposed upon these populations (Giacaman et al., 2007). Here I review studies showing the effects of exposure to EPV in that region. In a sample of youth during the First Intifada in Gaza, 77% of children reported witnessing some form of killing first-hand (Qouta & Odeh, 2005). In another study conducted by Dubow et al. (2010), Palestinian youth reported on experiences of violence and aggression across a variety of contexts, such as EPV (e.g., "Has a friend or acquaintance of yours been injured as a result of political or military

violence?"), and community violence (e.g., "How often have you been afraid to go outside, or have your parents made you stay inside, because of violence in your neighborhood?). Researchers found that in the past year, 73% of Palestinian youth reported witnessing actual political conflict and violence, 99% witnessed portrayal of the political violence in the media, 88% reported that the self or significant others participated in political demonstrations, 61% experienced a loss of, or injury to, a friend or family member, and 89% witnessed non-political violence in the community (Dubow et al., 2010).

Researchers have demonstrated that persistent exposure to EPV is associated with negative psychosocial adjustment in children and adolescents (Qouta et al., 2008). In the West Bank and Gaza, youth are at risk of internalizing problems, such as PTS symptoms (Dubow et al., 2010), as well as depression and anxiety (Giacaman et al., 2007; Huesmann et al. 2017; Qouta & Odeh, 2005; Qouta, Punamaki, & Sarraj, 2008). Youth from these regions are at higher risk of PTS symptoms, compared to youth in Israel (Lavi & Solomon, 2005)

Empirical studies have also shown that constant EPV exposure is related to aggressive outcomes, such as aggressive cognitions and behaviors, in children and adolescents. Focusing specifically on youth exposure to the Israeli-Palestinian conflict, exposure to EPV is positively related to aggressive cognitions; for example, children and adolescents exposed to EPV are more likely to endorse general aggression-approving beliefs (Huesmann et al., 2017) and aggressive beliefs towards out-groups (Huesmann et al., 2012; Shechtman & Basheer, 2005). Exposure to EPV also has been related to aggressive behaviors in children and adolescents; for example, Qouta, Punamaki, and Sarraj (2008) found that among Palestinian children, higher levels of exposure were related to higher levels of aggressive and antisocial behavior. Similarly, among Palestinian and Jewish youth reporting on their EPV exposure, higher exposure was related to

higher levels of aggression three years later, even after controlling for earlier levels of aggression and family socioeconomic status; and exposure to EPV over a three year period (childhood into adolescence) was related to severe physical aggression and participating in violent demonstrations four years later (Boxer et al., 2013; Huesmann et al., 2017; Dubow et al., 2019). Although not the focus of this study, a similar relation between exposure to EPV and negative outcomes (e.g., PTS symptoms, aggression) has been found in countries other than in the Middle East (Angola: McIntyre & Ventura, 2003; Cambodia: Rousseau et al., 2003; Croatia: Kerestes, 2006; Bosnia: Slodnjak et al., 2002; Guatemala: Brands, 2011; Kenya: Kithakye et al., 2010; Northern Ireland: Cummings et al., 2010; Merrilees et al., 2013; Taylor et al., 2016; Somalia: Halcon et al., 2004).

Social-Cognitive Information-Processing and Pathological Adaptation Models Relating Exposure to Violence to Youth Adjustment

Social-cognitive information-processing (SCIP) models have been developed and refined over the past 40 years to explain how exposure to influential others in their environment lead children to develop cognitive, emotional, and ultimately, behavioral patterns. These models are rooted in Bandura's (1977) social learning model and refined subsequently into a social-cognitive information-processing approach (e.g., Anderson & Huesmann, 2003; Bandura, 1977; Berkowitz, 1993; Crick & Dodge, 1994; Guerra & Huesmann, 2004; Huesmann, 1988, 1998; Huesmann & Kirwil, 2007). The basic notion is that social cognitions are shaped as a result of children's personal predispositions and interactions with influential others in the environment. Thus, influential socializers provide examples of how to react to social situations and solve problems. Through observational and enactive learning, children infer the appropriateness of behavior, beliefs, and emotions of others – thus developing and internalizing these social

cognitions into their repertoire, which can then affect their interpretations of similar social situations, their judgments about the appropriateness of potential behavioral responses when faced with similar situations, their expectations about potential consequences of their behavior, and in turn, their actual behavioral and emotional responses (Huesmann, 2018; Huesmann & Kirwil, 2007).

The SCIP model has been applied to understanding how children develop aggressive behavior through exposure to violence in their environments (e.g., Crick & Dodge, 1994; Guerra & Huesmann, 2004; Huesmann, 1998; Huesmann & Kirwil, 2007). The approach posits that repeated exposure to violence across contexts (family, peer group, media, etc.) reciprocally interacts with social and individual factors that ultimately leads youth to develop aggression-supporting social cognitive styles and emotional responses. These social cognitive styles and emotional predispositions then impact how individuals process situations and information through a series of steps (Figure 1). First, individuals attend to situational cues from their environment, which they then make attributions and interpretations. These attributions and interpretations are impacted by schemas about the world (e.g., hostile world schemas, beliefs that the world is a hostile place, developed because of repeated exposure to violence; Huesmann & Kirwil, 2007) and those with hostile attribution biases may interpret neutral environmental cues as aversive. To react to these evaluated cues, individuals then search for, interpret, and retrieve social scripts. These social scripts are composed of a repertoire of "procedural and declarative knowledge" that describe outcomes, such as associated rewards or consequences for aggression, gleaned from models in the environment, that are possible and likely by utilizing violence (Abelson, 1981; Huesmann, 2018). Processing social scripts may be impacted by normative beliefs justifying aggression, norms regarding how justified it is for the individual to behave

aggressively, because repeated exposure to violence makes aggression appear normative (Huesmann & Kirwil, 2007). Lastly, emotional distress, emotional predispositions (i.e., emotional sensitivity), and emotional desensitization (e.g., reduced negative emotional reactions to violence) impact all previous steps within this model, such that these emotional factors may make it more or less likely that an individual will make specific attributions or examine specific social scripts (Huesmann, 2018). Individuals then behave according to these steps and consequences of their behaviour aid to modify schemas, scripts, beliefs, and emotional reactions.

Normative beliefs about aggression is one cognitive factor within the SCIP model that has been widely studied (e.g., Huesmann et al., 2017; Krahé et al., 2011; Massarwi & Khoury-Kassabri, 2017). As noted, repeated exposure to violence within one's environment can alter an individual's cognitive perspective on violence and aggression, such that violence is believed to "normal," justified, and appropriate. These normative beliefs about aggression are indicative of cognitive desensitization and the appropriation of aggression and violence. Those with higher levels of cognitively desensitization or normalized beliefs are then more likely evaluate, apply, and behave according to social scripts that justify aggression and violence (Huesmann & Kirwil, 2007).

Additionally, within the social-cognitive information-processing model as related to understanding effects of exposure to violence, Huesmann (2018) stated that habitual exposure to violence can also lead to emotional desensitization, which Huesmann (2018) defines as "a decrease in both the physiological markers of emotional arousal and a change in cognitive interpretations of arousal to make it less negative." Emotional desensitization can be adaptive in regions of the world where youth face persistent violence, such as armed political conflict. In this case, the repeated presentation of the violent stimulus (e.g., EPV) results in smaller physiological

and emotional responses that are normally associated with fight-or-flight in thinking about or responding to violence (Guerra et al., 2003; Huesmann, 2018; Huesmann & Kirwil, 2007). Emotionally desensitized individuals no longer avoid violence because of their diminished negative emotional attributions or arousal to violent situations; within ethnic-political contexts, violence is so pervasive, individuals have built up a tolerance to aggression and are more likely to find it acceptable, and thus are more likely to select aggressive scripts when faced with social conflict situations (Huesmann, 2018; Huesmann & Kirwil, 2007; Ng-Mak et al., 2002).

Ng-Mak et al. (2002) also evaluated exposure to violence as it relates to emotional and cognitive factors in youth and developed a pathological adaptation model. The authors proposed that persistent exposure to violence at high levels can result in emotional desensitization and emotional leveling of their emotion reactions. So, similar to the social-cognitive information-processing model's inclusion of emotional desensitization, Ng-Mak et al. (2002) suggested that desensitization to violence results from normative cognitions about violence after repeated exposure, which results in a higher likelihood of acceptance of aggression and thus aggressive behavior, and a lower likelihood of emotional distress in response to exposure to violence. However, they also proposed that those individuals may also become emotionally sensitized to violence, where individuals display more emotional distress to violence with increased exposure to violence, as well as weaker associations with aggressive responding.

To test their model, Ng-Mak et al. (2004) surveyed 471 sixth grade students and their parents from an urban school district in the United States. Youth reported on witnessing (i.e., heard or seen) and experiencing violence (e.g., being beaten up) within the community (i.e., school, neighborhood, public spaces). Youths' aggressive behavior and psychological distress (e.g., "being sad," "worrying," and "crying") were assessed through self-report and parent

reports. The researchers tested their pathological adaptation model using two hierarchical regression models, one in which exposure to violence predicted aggression, and the other in which exposure to violence predicted distress. The researchers entered a range of demographic covariates, followed by the linear effect of exposure to violence, and finally the quadratic effect of exposure to violence. In predicting aggression, only the linear effect of exposure was significant (for both child (b =.24, $p < .001$) and parent report (b = .11, $p < .001$)), demonstrating that as exposure increased, even at high levels, aggression also increased, consistent with desensitization. In predicting distress, however, the quadratic term of exposure was significant (for child report of aggression, b = -.03, $p < .01$; no significant results for parent report), showing that as exposure increased initially, so did distress (consistent with sensitization), but at high levels of exposure, distress began to decrease (consistent with a desensitization effect). The authors interpreted these results as consistent with the pathological adaptation model (at least for child reports) previously outlined by Ng-Mak et al. (2002). It is important to note that Ng-Mak et al. (2004) did not directly measure reported emotional reactions to violence (their distress measure was a general outcome measure); rather, they inferred desensitization from the pattern of results showing the relation between violence exposure and adjustment.

It is important to note that studies have also demonstrated that many individuals who are exposed to violence become sensitized (i.e., more pronounced reactions to violence), not desensitized. Exposure to traumatic events, including violence, leads some youth to experience high levels of stress and post-traumatic symptomology (Cougle et al., 2009; McLaughlin et al., 2010; McLaughlin et al., 2017), suggesting that some youth become highly sensitized to violent stimuli, and over time, respond with maladaptive patterns of emotional reactivity (Hammen et al., 2000). Models of stress-sensitization describe stress as a cognitive evaluation of an aspect of

one's environment as a possible risk which is considered unmanageable (Farb et al., 2015; Folkman et al., 1986). For example, Farb et al. (2015) proposed a two-factor sensitization model, whereby stress appraisals become maladaptive due to dysfunctional fixation and rumination about the stress stimuli; fixation is described as a "sustained representation of negative over positive feature of events" and rumination "integrates [these] concrete negative feature representations into abstract dysphoric schemas about oneself, future and role in the world." Such fixation and rumination can become cyclical when responding to violence and trauma, and stress-sensitization can result in increased risk of internalized symptoms, such as depression, PTS, and anxiety disorders in adulthood (McLaughlin et al., 2010). Within ethnic-political contexts, research has demonstrated that increased exposure to violence is related to increased internalized symptoms of depression, anxiety, and PTS (Dubow et al., 2010; Giacaman et al., 2007; Huesmann et al. 2017; Lavi & Solomon, 2005; Qouta & Odeh, 2005; Qouta, Punamaki, & Sarraj, 2008).

Theoretical Models Applied to Ethnic-Political Violence

Dubow et al. (2009) applied the SCIP model to understanding the effects of EPV on youth's adjustment. Due to the sanctioned nature of EPV, this type of violence acts as distinctive factor within a youth's ecological system (i.e., nested environmental contexts of an individual; Dubow et al., 2009; Bronfenbrenner, 1979) and impacting an individual's identity and social schemas (e.g., social scripts and beliefs that are integral within SCIP models). Repeated exposure to EPV is theorized to lead to the development of aggression-related social cognitions (normative beliefs justifying violence, fantasizing about aggression, and hostile world beliefs) as well as ethnic-related schemas and beliefs (e.g., antagonistic beliefs justifying aggression against the outgroup, negative stereotypes toward the outgroup). Empirical studies have indeed shown that

higher levels of exposure to EPV are related to aggression-related cognitions towards the outgroup (Huesmann et al., 2012; Lavi & Solomon, 2005; Shechtman & Basheer, 2005). For example, Shechtman and Basheer (2005) found that Israeli Arab children were more likely to support aggressive reactions towards Israeli Jewish children than towards children of their own ethnicity, and Victoroff et al. (2010) found that adolescents from Gaza who reported that their family members were wounded or killed by Israeli forces were more likely to support statements indicative of "religio-political aggression" (e.g., "Religious ends justify any means").

Huesmann et al. (2017) tested aspects of the SCIP model in an EPV context in a sample of Israeli and Palestinian youth. The authors interviewed Palestinian (N = 600) and Israeli (N = 901) children, equally distributed across three age cohorts (ages 8, 11, and 14), and their parents, annually for three consecutive years. Children and parents provided ratings of the children's exposure to EPV and aggression; and youth provided reports of their aggressive fantasies, normative beliefs about aggression, and emotional distress. The authors found that exposure to EPV at Wave 1 predicted increases from Wave 1 to Wave 2 in aggressive fantasy, normative beliefs supporting aggression, and emotional distress, which then predicted increases in aggression at Wave 3 (controlling for Wave 1 aggression). Huesmann et al. (2017) did not examine emotional desensitization (i.e., whether youth decrease in their emotional arousal as a result of persistent high levels of violence exposure) in this study. Thus, whereas researchers have examined the role of aggression-supportive social cognitions and emotional distress within the social-cognitive model of exposure to EPV, less research has examined emotional sensitization and desensitization in this context.

Emotional and Cognitive Desensitization as a Moderator of the Relation Between Exposure to Violence and Youth Adjustment. In line with the models reviewed above, empirical studies suggest that emotional and cognitive desensitization to violence is an important factor in relation to youths' behavioral and emotional outcomes. Expanding on this work, Boxer et al. (2008) conducted a set of studies where they assessed direct self-reports of emotional reactions to violence. In one study of 35 urban youth, ages 6 – 16 years old, from a southeastern city in the United States, the authors assessed emotional reactions to violence through a measure of avoidant coping. Boxer et al. (2008) found that exposure to violence was directly related to aggressive behavior ($r = .49$, $p < .01$) and emotional distress ($r = .49$, $p < .01$), but avoidant coping (i.e., sensitization to violence) was only related to the outcome of emotional distress ($r = .41$, $p < .05$) and not aggressive behavior. The authors interpreted these results as consistent with exposure to violence relating to emotional desensitization because sensitization was related to emotional distress but not to aggressive behavior. In their second study, Boxer et al. (2008) examined 70 urban youth, aged 8 – 15 years old, from the Midwest United States to assess desensitization to violence, operationalized using a measure of aggression-supporting beliefs. Participants also completed the measure of avoidant coping in response to violence as an index of sensitization. The authors found that the positive relation between exposure to community violence and aggressive behavior was mediated by higher levels of normative beliefs supporting aggression (an indication of desensitization). Additionally, the positive relation between exposure to violence and emotional distress was mediated for by higher levels of avoidant coping (suggesting sensitization). Although this study suggests mediation, all measures were assessed at the same time point so temporal mediation cannot be established.

To explore these social-cognitive variables within a moderation framework, Boxer et al. (2011) evaluated exposure to violence and emotional sensitivity to violence in a sample of formerly incarcerated men ($N = 123$) from an urban area in the northeast United States. The participants reported on their exposure to community violence, emotional reactions to violence (sensitization), normative beliefs justifying aggression (desensitization to violence), aggressive behavior, and emotional distress. The emotional reaction to violence measure assessed an individual's self-reported emotional sensitivity to the violence that they experienced (e.g., "How much does it upset or bother you in some way if you see [e.g.,] somebody get stabbed?"; Boxer et al., 2011). Boxer et al. (2011) found that exposure to violence was directly related both to aggressive behavior ($r = .41$, $p < .01$) and emotional distress ($r = .27$, $p < .05$). Emotional sensitivity to violence (sensitization) was inversely correlated with aggressive behavior ($r = -.32$, $p < .01$). Regarding aggressive behavior as an outcome, in a moderated multiple regression model that controlled for a variety of demographic variables and exposure to violence, emotional sensitivity to violence (sensitization) and normative beliefs justifying violence (desensitization) were entered together in a block and accounted for a small but significant increment in variance in aggressive behavior ($\Delta R^2 = .04$, $p = .05$); specifically, emotional sensitivity to violence inversely predicted aggressive behavior ($\beta = -.17$, $p < .05$): the more upset and bothered the participants were about the violence they had experienced, the less aggressive they were (supporting sensitization). Next, a block of interaction terms was entered (exposure to violence x normative beliefs supporting aggression; exposure to violence x emotional sensitivity to violence) and had a marginally significant effect ($\Delta R^2 = .03$, $p = .10$). Specifically, there was a significant interaction between exposure to violence and normative beliefs supporting aggression ($\beta = .21$, $p < .05$); for participants who reported high levels of normative beliefs supporting

aggression, exposure to violence was significantly related to aggressive behavior (β = .48, p < .001), while there was no significant relation for participants with low levels of normative beliefs supporting aggression. This finding provides partial support for desensitization to violence. In another moderated regression model, with emotional distress as the outcome, the block of interaction terms (exposure to violence x normative beliefs supporting aggression, exposure to violence x emotional sensitivity to violence) had a significant effect (ΔR^2 = .06, p = .05); both terms were significant (exposure x normative beliefs (β = .21, p < .05) and exposure x emotional sensitivity (β = .18, p < .10)). For participants with high levels of normative beliefs supporting aggression, exposure to violence related positively to emotional distress (β = .36, p < .01), which is inconsistent with the desensitization; however, at high levels of emotional sensitivity to violence, exposure to violence was positively related to emotional distress (β = .39, p < .01), supporting sensitization. In other words, Boxer et al. (2011) suggested that at high levels of normative beliefs justifying aggression, there are positive relations between exposure to violence and aggressive behavior (i.e., supporting desensitization); additionally, at higher levels of emotional sensitivity to violence, there are positive relations between exposure to violence and emotional distress (i.e., supporting sensitization).

Emotional desensitization has also been measured using physiological markers of reactivity to exposure to violence, and how this relates to measures of aggression and emotional distress. Emotional sensitivity to violence has been measured through skin conductance levels (SCL), where increased electrodermal activity has been correlated with increased physiological arousal and distress due to a "fight-or-flight" response (Huesmann et al., 2018). Krahé et al. (2011) examined undergraduates from a German university (N = 303). The researchers recorded participants' SCL while participants watched a violent media clip, a sad clip, or a funny clip. The

researchers later assessed the accessibility of aggressive thoughts through a lexical decision task, where participants had to identify 80 meaningful words (aggressive [e.g., weapon] and non-aggressive [e.g., flower]) embedded between 80 nonsense words (e.g., strese); faster response times indicated easier accessibility to that word's underlying construct. A self-report measure of emotional sensitivity also was taken immediately after the participants viewed each film clip (i.e., how pleasant they found the clip and how anxious they were while watching it). Undergraduates also reported on their general exposure to media violence, aggressive beliefs and behaviors, and trait arousability (i.e., their emotional responsiveness and general tendency to experience strong emotional states; e.g., "I get happy or sad easily"). The researchers found that higher levels of exposure to media violence were consistently negatively correlated with SCL recordings at five time points during the violent clip (partial *r*s ranged from -.14 to -.23, controlling for baseline SCL); similar results were found for the sad, but not the funny clips, suggesting that the more violent media to which individuals reported having been exposed, the lower physiological responses they demonstrated to violent and sad content (i.e., desensitization). The authors also found that when viewing violent clips, higher levels of exposure to media violence were significantly related to self-reports of pleasant arousal ($r(302) = .26$, $p < .001$) and anxious arousal ($r(303) = -.17$, $p < .01$); in other words, individuals who reported higher levels of exposure to violent media reported more pleasant arousal and less anxious arousal to the violent clips (i.e., desensitization). The researchers also found, in a path analysis, that exposure to violent media predicted faster reaction times to violent words in the lexical decision task; the effect was in part mediated by pleasant arousal in response to the violent media, which is more direct evidence of desensitization.

Also utilizing SCL measurements in a study of 168 policemen and 115 college students from Poland and the Czech Republic, Kirwil (2004) used a similar video clip task, as previously described (Krahé et al., 2011), to examine emotional reactions to violent scenes. Participants reported their emotional reactions while viewing the clips (e.g., positive reactions: amusement, happiness, relief; negative reactions: anxiety, fear, anger) and experienced arousal (e.g., tense, restless, excited); SCL also was measured during the clip. Additionally, participants reported their exposure to violence, normative beliefs supporting aggression (as an index of desensitization), and violent behaviors. Kirwil (2004) found that students reported more anxiety and police reported more anger while watching the violent scenes. When examining SCL changes, students were found to have greater increases in SCL from benign to violent scenes (i.e., more arousal and sensitization), while police had minor SCL changes with the same scene transition. The authors interpreted these results as demonstrating desensitization to violence, as police officers were more likely, because of higher levels of exposure to violence, to have developed a tolerance to aggression compared to undergraduate students. However, the results may also suggest that those who self-select into police work may be more desensitized at baseline than the typical population.

Similar to Kirwil's (2004) examination of exposure to violence and reaction to video clips, Huesmann et al. (2017) examined samples of Palestinian (n = 400) and Israeli Jewish (n = 162) youth as part of a longitudinal study (the same study that I am using for the present study). The authors showed a violent video clip to the participants and gathered SCL measurements and self-reports of emotional responding to the video clip. The authors calculated a measure of "anxious arousal to violence" by multiplying an individual's mean skin conductance response score to the violent scenes and their mean self-report of their experienced emotions during the

clip of “anxiety,” “fear,” and “horror.” The researchers also measured prior exposure to EPV, current aggression, and PTS symptoms. Prior exposure to violence was correlated with current severe physical aggression ($r = .19$, $p < .001$) and PTS symptomology ($r = .26$, $p < .001$), and general aggression and PTS were correlated with each other ($r = .30$, $p < .001$). The researchers examined whether “anxious arousal” discriminated between those for whom exposure increases aggression and those for whom exposure increases PTS. In a regression model in which prior violence exposure and anxious arousal simultaneously predicted aggression and PTS, the researchers found that anxious arousal to violence was predictive of higher PTS symptomology ($\beta = .16$, $p < .01$; i.e., suggesting sensitization), and anxious arousal was negatively associated with aggressive behaviors ($\beta = -.14$, $p < .01$; i.e., suggesting desensitization). Further, for youth who were low to moderate on anxious arousal (lower 75% of sampled youth), prior exposure to EPV predicted both aggressive behaviors ($\beta = .22$, $p < .001$) and PTS ($\beta = .22$, $p < .001$); but for youth who were high on anxious arousal (i.e., highest 25% of sampled youth), exposure to EPV was more strongly associated with PTS than aggression ($\beta = .31$ vs. $\beta = .20$, respectively). The researchers concluded that anxious arousal to violence moderates the relation between exposure to EPV and youth adjustment (i.e., aggression and emotional distress), such that at high levels of anxious arousal, exposure to violence was more strongly predictive of distress than aggression, whereas at low to moderate levels of arousal, exposure to violence predicted both aggression and distress similarly.

The Present Study

Social-cognitive information-processing models (Dubow et al., 2009; Huesmann, 2018; Huesmann & Kirwil, 2007) and pathological adaptation models (Ng-Mak et al., 2002) have examined mechanisms by which exposure to violence relates to outcomes such as aggression and

emotional distress. These studies provide empirical evidence that mechanisms include the development of aggression-supporting social cognitions and emotional reactions (emotional and cognitive desensitization to violence; Boxer et al., 2008; Boxer et al., 2011; Huesmann et al., 2017; Kirwil, 2004; Krahé et al., 2011; Ng-Mak et al., 2004). In terms of emotional reactions to violence, most of the studies have been conducted in the context of community violence or violence depicted in media. Limited literature exits on emotional reactions to EPV. Additionally, those studies that do explore EPV and its outcomes among youth (e.g., Huesmann et al., 2017) do not directly examine how emotional sensitivity impacts the relation between EPV and youth adjustment, particularly within a moderation framework to aid in distinguishing between youth outcomes.

In this study, I examined exposure to violence, emotional and cognitive desensitization, and youth adjustment (internalizing symptoms and aggression) in the context of the Israeli-Palestinian conflict. I utilized the same longitudinal sample of Israeli Jewish and Palestinian youth collected by Huesmann et al. (2017). Specifically, I examined the relation of cumulative and concurrent exposure to EPV to outcomes of youth adjustment (aggression and internalizing symptoms), the relation of emotional and cognitive desensitization to youth adjustment, and finally, I examined whether emotional and cognitive desensitization to violence moderates the relation between exposure to EPV and late youths' aggressive behavior and internalized symptoms. My specific hypotheses were as follows: 1) I hypothesized that there will be significant relations of Waves 1-3 and Wave 4 exposure to EPV with youth adjustment; specifically, higher levels of exposure are expected to be related to higher levels of internalizing and aggressive symptoms; 2) I hypothesized there will be significant relations of emotional and cognitive desensitization with youth adjustment; specifically, I expect to find significant positive

associations of emotional sensitivity to violence with internalizing symptoms, and normative beliefs about aggression with aggression, as well as significant negative associations of emotional sensitivity to violence with aggression, and cognitive desensitization with internalizing symptoms; and 3) I hypothesized that emotional and cognitive desensitization to EPV will moderate the relation between exposure to EPV and youth adjustment, specifically: a) at high levels of emotional sensitivity to EPV, the relation between exposure to EPV and internalizing symptoms will be positive and stronger than at lower levels of emotional sensitivity to violence; b) at low levels of normative beliefs about aggression, the relation between exposure to EPV and internalizing symptoms will be positive and stronger than at higher levels of normative beliefs about aggression; c) at high levels of normative beliefs about aggression, the relation between exposure to EPV and aggression will be positive and stronger than at lower levels of normative beliefs about aggression; and d) at low levels of emotional sensitivity to violence, the relation between exposure to EPV and aggression will be positive and stronger than at higher levels of emotional sensitivity to violence.

METHOD

Participants

Background of the Palestinian-Israeli Exposure to Violence Study

I used data from the Palestinian-Israeli Exposure to Violence Study (Boxer et al., 2013; Dubow et al., 2010; Dubow et al., 2012; Dubow et al., 2019; Huesmann et al., 2017; Huesmann et al., 2018), which examined effects of exposure to EPV among 1,501 Palestinian and Israeli Jewish and Arab youth in three starting age cohorts (ages 8, 11, 14) across four time points. The youths and parents were interviewed regarding their exposure to violence and behavioral, emotional, and mental health symptoms during each wave of testing. Interviews were conducted annually for the first three waves between 2008-2010, with the fourth wave occurring four years later in 2014-2015. In Wave 4, Palestinian and Israeli Jewish youth were re-interviewed, but not Israeli Arab youth. Because I am interested in emotional sensitivity to violence, which was assessed only in Wave 4, I will include only Palestinian and Israeli Jewish youth in my analyses. My analyses focused on demographic data and exposure to EPV data collected over the first four waves, as well as emotional sensitivity to violence, aggression, and internalizing symptoms collected at the fourth wave.

Demographic Characteristics of the Participants

Palestinian Sample. The first wave of the study included 600 children from Gaza and the West Bank, ages 8, 11, and 14 (n = 200 for each age group). The Palestinian sample was selected to be representative of the general population in the West Bank and Gaza (Palestinian Central Bureau of Statistics, 2008); 64% from the West Bank and 36% from the Gaza strip (see Boxer et al., 2013; Dubow et al., 2010; Dubow et al., 201 for sampling details). Parents reported on demographic information, with almost all of parents reporting their religion (599/600) as

Muslim and their relationship status as married (99%), as well as an average of 4.89 (*SD* = 1.86) children living in the home. Additionally, one-third of the parents reported having a high school degree. The first three waves of the study had minimal attrition among the Palestinian sample, with resampling rates at 98% (Wave 2) and 95% (Wave 3).

At the fourth wave of the study, 400 of the 572 youth who completed Wave 3 were randomly selected to participate. At the fourth wave of the study, participants were ages 14 (*n* = 132), 17 (*n* = 140), and 20 (*n* = 128), with an even split between gender (girls, *n* = 199; boys, *n* = 201). Demographic characteristics of the sample at Wave 4 indicated that 29% of youth's parents had a ninth-grade education or higher, and 47% of parents reported below average income. In examining differences between those who did not participate at Wave 4 and those who did, Dubow et al. (2019) found that *t*-tests of Wave 1 study variables demonstrated no significant differences between those re-interviewed and not interviewed in Wave 4 in regards to child's age or sex, or their Wave 1 report on exposure to EPV, Wave 1 aggression score, or parents' Wave 1 average level of education.

Israeli Jewish Sample. The first wave of the study included 451 Israeli Jewish youth, ages 8 (*n* = 151), 11 (*n* = 150), and 14 (*n* = 150). The Israeli Jewish participants were oversampled from high-conflict areas because the level of conflict and violence is relatively low in the major population centers of Israel (e.g., Southern Israel, near Gaza Strip; see Dubow et al., 2018, Landau et al., 2010). Parents reported on demographic information: 91% of the parents were married, 80% of parents graduated from high school, and families had an average of 3.59 (*SD* = 1.83) children living in the home. Compared to resampling rates for the Palestinian sample, re-sampling rates for Israeli Jews were much lower for Wave 2 (68%, *n* = 305) and

Wave 3 (63%, n = 282). Dubow et al. (2019) reported that attrition was due to refusals to participate, as parents viewed the monetary reimbursement as insufficient.

At the fourth wave of the study, 162 Israeli Jews were randomly selected out of the 282 youth who completed the third wave of the study. At the fourth wave of the study, participants were ages 14 (n = 56), 17 (n = 62), and 20 (n = 44), with more girls than boys in the sample (girls, n = 90; boys, n = 72); 80-85% of youths' parents had a high school degree or higher. Dubow et al. (2019) reported there were no significant differences between those who participated in Wave 4 and those who did not in terms of child age or sex, or on the child's Wave 1 aggression score; however, the authors found that youth re-interviewed at Wave 4 had parents with a higher education level ($t(897) = 9.21$, $p < .001$) and had been exposed to a marginally more EPV at Wave 1 ($t(989) = 1.77$, $p < .08$).

Procedure

The research protocol was approved by the Institutional Review Boards of the University of Michigan, the Hebrew University of Jerusalem, and the Palestinian Center for Policy and Survey Research. Interviews were conducted by staff from the Palestinian Center for Policy Survey Research (Palestinian sample) and the Macshov Survey Research Institute (Israeli sample) in the family's homes, where parents (one parent per family) and children were interviewed separately. All measures were presented in native languages by interviewers from the region, with original English measures translated and back-translated by native-speaking research teams. Parents provided written informed consent and children provided assent for participation. Families were compensated at regional equivalents of $25 for the one-hour interview during the first three waves. The compensation at Wave 4 for Palestinian families was

$40 per child and $30 per parent, while Israeli families were compensated $65 per child and $40 per parent due to differential cost of living and to limit Israeli attrition (Dubow et al., 2019).

Measures

Demographic Variables and Covariates

In addition to the child's age and sex, parents reported on their own educational levels. Parental level of education was on a ten-point scale (1 = "Illiterate," 10 = "Doctorate or Law degree"). For these analyses, I will use the average of the parents' levels of education as an index of socioeconomic status.

Ethnic-Political Violence Exposure

Parents of children in the youngest starting age cohort (age 8) reported on their child's exposure to EPV in Waves 1-3, while older children (ages 11 and 14) self-reported on their exposure to EPV [1]. Exposure to EPV was measured using an adapted version of the Political Life Events scale (PLE; Slone et al., 1999; Slone et al., 2010). In the present study, participants reported on how often they experienced 24 items in the past year on a 4-point scale (0 = "Never," 3 = "Many times"). The items represent five domains of ethnic-political conflict: loss of, or injury to a friend or family member as a result of EPV (e.g., "Has a friend or acquaintance of yours been injured as a result of political or military violence?"), non-violent events that are

[1] Dubow et al. (2019) reported that parents' report of younger children's (age 8) exposure to ethnic-political violence was separated from older children's (ages 11 and 14) self-report of ethnic-political violence for two reasons. Firstly, their Institutional Review Board was concerned about the younger children's emotional reactions to reporting on ethnic-political violence. Secondly, given the challenges with interviewing younger children for long periods of time, parental reporting for the younger children decreased the child's self-report interview time with the eight-year-olds. To examine the comparability of parents' and youths' exposure to ethnic-political violence at Wave 3, Dubow et al. (2019) administered the exposure to ethnic-political violence measure to both youth and parents of the youngest cohort and found them to be highly correlated (r = .68).

consequences of EPV (e.g., “How often have you spent a prolonged period of time in a security shelter or under curfew?”), participation in political demonstrations by self or significant others (e.g., “How often have you known someone who was involved in a violent political demonstration?”), witnessing actual political violence perpetrated by the other ethnic group (e.g., “How often have you seen right in front of you Palestinians being held hostage, tortured, or abused by Israelis?”), and witnessed media portrayals of violence perpetrated by the other ethnic group (e.g., “How often have you seen video clips or photographs of injured or martyred Palestinians on stretchers or the ground because of an Israeli attack?”). Slone et al. (1999) reported the original scale yielded high internal consistency ($\alpha = .83$ - $.90$). Shoshani and Slone (2016) found that higher scores on the (i.e., more exposure to EPV) were related to higher symptom scores on the Brief Symptom Inventory (BSI; Piersam, Reaume, & Boes, 1994) subscales of depression ($r = .22$, $p < .001$), anxiety ($r = .24$, $p < .001$), the BSI Global Severity Index ($r = .36$, $p < .001$), and the University of California Los Angeles PTSD Index for DSM-IV ($r = .38$, $p < .001$; Rodriguez et al., 1999). Dubow et al. (2010) calculated an average score on the 24 items and found that coefficient alphas ranged from .70-.81 across all waves, and across both parent and child reports (Dubow et al., 2019). Following Dubow et al. (2019), I will use the average of the scores across the first three waves of the study as an index of early EPV exposure and I will use the Wave 4 score as an indicator of current EPV exposure.

Emotional and Cognitive Desensitization to Violence

Emotional Sensitivity to Ethnic-Political Violence. Emotional sensitivity to EPV was measured in Wave 4 in conjunction with ten exposure events from the Exposure to Political Conflict and Violence Scale (Slone et al., 1998; Slone et al. 1999, Dubow et al., 2010) described above (e.g., “How often have you seen right in front of you, Israeli buildings, buses, or other

property destroyed by Palestinians?"). To measure participants' emotional sensitivity to these ethnic-political events, the ten events were each followed by the question, "When you think about situations like this, how anxious or nervous do you feel?" These ten emotional sensitivity questions were rated on a 4-point scale (0 = "Not at all," 3 = "Extremely"). This approach of measuring of emotional sensitivity to violence was adapted from Boxer et al. (2011), who reported this approach to have high reliability ($\alpha = .91$) and they also found this approach was related to constructs that I will also be measuring, such as aggressive behavior ($r = -.32$, $p < .05$), exposure to violence ($r = -.35$, $p < .05$), and normative beliefs about aggression ($r = -.22$, $p < .05$). I will use the average score of the ten emotional sensitivity items as a measure of emotional sensitivity (emotional sensitization) to EPV from Wave 4.

General Normative Beliefs About Aggression. Following previous studies (Boxer et al., 2011; Huesmann et al., 2017; Krahé et al., 2011), I will use the Normative Beliefs About Aggression scale (Huesmann & Guerra, 1997) at Wave 4 as an index of cognitive desensitization to violence. Youth were prompted with: "Now we are going to ask you whether you think certain things are wrong or OK for people your age to do." Youth responded to eight items on a four-point scale (1 = "It's really wrong," 4 = "It's perfectly OK"). Sample items included, "In general, is it OK for people your age to hit other people?" and "If a person your age is angry, is it OK for them to say mean things to other people?" Huesmann and Guerra (1997) reported this measure to be reliable ($\alpha = .94$) and valid, as this measure was related to other measures of child aggression. I will use the average of the eight items.

Youth Adjustment at Wave 4

Internalizing Symptoms. Four measures will be used to assess outcomes regarding internalizing symptoms at Wave 4: civilian PTS symptoms measured only at Wave 4, and

additional measures of PTS symptoms that were administered across all waves, specifically, depression and anxiety.

Civilian PTS Symptoms. At Wave 4, youth reported on their PTS symptoms using the Post-Traumatic Stress Disorder Checklist – Civilian Version (Weathers et al., 1993). The scale was 17 items, asking participants to indicate if they have been bothered by the noted problems within the past month on a 5-point scale (1 = "Not at all," 5 = "Extremely"). The scale was administered after the exposure to EPV scale, using the following instruction, "Next is a list of problems and complaints that people sometimes have in response to stressful or violent political […] events like we just asked you about." Sample items included, "In the past month, how much have you been bothered by having physical reactions (e.g., heart pounding, trouble breathing, or sweating) when something reminded you of a stressful experience from your past?" and "In the past month, how much have you been bothered by repeated, disturbing memories, thoughts, or images of a stressful experience from the past?" Weathers et al. (1993) found this scale to be reliable (α = .62-.87) and valid, as it was related to reports on the Mississippi Scale for Combat-Related Posttraumatic Stress Disorder (r = .98; Keane et al., 1988) and the PK Supplementary Scale (i.e, Post-Traumatic Stress Disorder scale) on the Minnesota Multiphasic Personality Inventory-2 (MMPI-2; r = .77; Butcher et al., 1989; Hathaway & McKinley, 1983). I will calculate the average of the 17 items.

Child PTS Symptoms. Youth also reported on their PTS symptoms at all four waves using the Child Post Traumatic Stress Symptoms Index (Pynoos et al., 1987). The scale included nine items asking participants to indicate if they have been bothered by the noted problems within the past month on a 4-point scale (0 = "Never," 3 = "A lot"). Sample items included, "You have upsetting thoughts, pictures, or sounds of what happened come into your mind when

you do not want them to" and "You try not to talk about, think about, or have feelings about what happened." This scale has been reported to be reliable (α = .70; Dubow et al., 2010) and has been validated as indicated by correlations with the Child's Reaction to Traumatic Events Scale – Revised (r = .77, *p* = .001; Jones et al., 2002; Stewart et al., 2017). I will calculate the average of the nine items at Wave 4 as a concurrent measure of PTS. In addition, PTS was measured at Wave 1 with these items and this scale at Wave 1 will be used as a covariate for early PTS in predicting Wave 4 data.

Depression and Anxiety. Symptoms of depression and anxiety were measured at Wave 4 using 12 items from the Brief Symptom Inventory (BSI; Piersmam et al., 1994). There were six items on the depression subscale and six items on the anxiety subscale. Youth reported how much they had been bothered by the noted symptoms within the past seven days on a 5-point scale (0 = "Not at all," 4 = "Extremely"). Sample depressive items included, "Feeling lonely" and "Feeling hopeless about the future," and sample anxiety items included, "Nervousness or shakiness inside" and "Spells of terror and panic." The BSI subscales of depression and anxiety have been shown to be reliable (depression α = .89; anxiety α = .86; Boulet & Boss, 1991) and the scales have been shown to be positively related to analogous scales of anxiety and depression on the MMPI (Boulet & Boss, 1991; Hathaway & McKinley, 1983). I will calculate the average of the anxiety items and the average of the depression items.

Aggression. Aggression was assessed with four scales at Wave 4: three self-report measures (severe physical aggression, general aggression, and aggressive personality) and one parent report measure (parent report on youth aggression).

Severe Physical Aggression. Severe physical aggression was measured at all four waves using five items from the Severe Physical Aggression measure (Huesmann et al., 1984). Youth

reported on how often in the past year they have engaged in certain behaviors on a five-point scale (0 = "Never," 3 = "5 or more times") (e.g., "In the past year how often have you: slapped or kicked someone, choked someone, threatened or actually cut someone with a knife threatened, or actually shot someone with a gun). The severe physical aggression items (four items) have been reported to have a coefficient alpha of .62 at Wave 1 and .64 at Wave 3 (Huesmann et al., 2017). The original scale is correlated positively and significantly with other measures of youth aggression (Dubow et al., 2019). It should be noted that the aggressive acts in the scale are most likely only directed to the youth's own "in-group" as there are no opportunities (with rare exceptions) to aggress against youth from other ethnic groups (Dubow et al., 2019). I will calculate physical aggression as an average score of all five items at Wave 4 as a measure of concurrent aggression.

General Aggression. General aggression at all four waves was measured using the Self-Report Peer Nominated Aggression measure (Eron, Walder, & Lefkowitz, 1971; Huesmann et al., 2006), where the items were adapted from peer nomination items into self-report items. The scale has 10 items asking youth to report how often they engaged in certain behavior on a 4-point scale (0 = "Never," 3 = "Almost always"). Sample items included, "How often to you push or shove other people" and "How often do you say mean things to other people." The original peer nominated measure has been widely used, with high reliability ($\alpha = .90$; Huesmann & Eron, 1986) in US national samples and has been related to different indices of aggression, such as aggressive personality features from the MMPI ($r = .32$, $p <. .05$; Hathaway & McKinley, 1983; Huesmann et al., 2006) and the Severe Physical Aggression measure ($r = .15$, $p <. .05$; Huesmann et al., 1984; Huesmann et al., 2006). I will calculate the average score at Wave 4 as a measure of concurrent aggression.

Aggressive Personality. Youths' aggressive personality was measured at Wave 4 using 14 items from the Buss-Perry Aggression scale (Buss & Perry, 1992). Youth reported on how well aggressive statements described them on a 5-point scale (1 = "Very unlike you," 5 = "Very much like you"), ranging from items of physical aggression (e.g., "Once and awhile you can't resist the urge to strike another person") to verbal aggression (e.g., "When people annoy you, you may tell them what you think of them"). The Buss-Perry Aggression scale has been found to be reliable (α = .71; Boxer et al., 2011) and Buss and Perry (1992) have demonstrated that this scale is related to peer reports of physical aggression and verbal aggression. I will calculate the average score of the 14 items.

Parent-Report of Youth Aggression. At Wave 4, parents reported on the youth's aggressive behaviors. Parents of the younger cohorts (ages 14 and 17) reported on their child's aggressive behaviors using the Child Behavior Checklist, while the parents of the older cohort (age 20) were administered the Adult Behavior Checklist. I will calculate the average score, and standardize it, as a parent report of the youth's Wave 4 aggression.

For the 14- and 17-year-olds, parents reported on their child's behavior using 20 items aggression scale from the Child Behavior Checklist (CBC; Achenbach & Edelbrock, 1983). Parents were instructed to report on behavior that describes their child "now or within the past six months" on a three-point scale (0 = "Not true," 2 = "Very true or often true"). Sample items include, "Physically attacks people" and "Cruelty, bullying, or meanness to others." Dubow et al. (2010) reported this scale to be reliable (α = .89) and the CBC has been used in a variety of countries (Achenbach, 2010). This scale has also been shown to be related to the Diagnostic and Statistical Manual's (DSM-IV; American Psychiatric Association; 1994) diagnostic criteria for

aggressive behaviors listed for conduct disorder and oppositional defiant disorder (Hudziak et al., 2004).

For the 20-year-olds, parents reported on their youth's behavior using 16 aggressive items from the Adult Behavior Checklist (ABC; Achenbach & Rescorla, 2003), the adult equivalent of the CBC. Parents were instructed to report on behavior that describes their youth "now or within the past six months" on a 3-point scale (0 = "Not true," 2 = "Very true or often true"). Sample items include, "Damages or destroys things belonging to others" and "Gets in many fights." The ABC has also been shown to be reliable (α = .66 - .89; DeLuca et al., 2018). The ABC has been reported to have good model fit for its subscales, including aggression, among diverse countries (Ivanova et al., 2015; Rescorla et al., 2016), as well as expected correlations with similar subscales on the Symptom Checklist-90-Revised (Derogatis, 1994; Ivanova et al., 2015) and collateral reports from the Adult Self-Report (Achenbach et al., 2005; Rescorla et al., 2016).

Early Indicator of Aggression. Following Huesmann et al. (2017), I will use a composite score of three measures of aggression taken at Wave 1 (severe physical aggression, general aggression, and parental report of aggression) as an indicator of early aggression. The authors created a composite score using the three measures by developing a structural equation measurement model for each of the waves. The factor score coefficients were 0.176 for the parents' reports on the CBC, 0.176 for general aggression, and 0.473 for severe physical aggression. This composite score of aggression at Wave 1 will be used as a covariate for early aggression in predicting Wave 4 aggression.

RESULTS

Preliminary Analyses

Data Reduction

To aid in data reduction, I first assessed correlations among the variables within each domain of measures.

Regarding the Wave 4 internalizing symptom measures (Post-traumatic Stress Disorder Checklist – Civilian Version, Child PTS Symptom Index, Brief Symptom Inventory – depression and anxiety scales), they were all found to be highly correlated with each other (*r*s = .56 - .79, *p*s <.001). The correlation between Post-traumatic Stress Disorder Checklist – Civilian Version (PCL) and Child PTS Symptom Index was the highest ($r = .79$, $p < .001$), as expected, as both are measures of post-traumatic symptoms. Because the PCL has more items and is more appropriate for the age of the participants at Wave 4, I dropped the Child PTS Symptoms measure. I created a composite Wave 4 internalizing score by standardizing and then averaging the PCL and the BSI – depression and anxiety scales.

Next, I assessed the correlations among the Wave 4 aggression measures (Severe Physical Aggression, Self-Report Peer-Nominated Aggression, Buss-Perry Aggression, and parent reports of aggression) and found that they were moderately correlated with each other (*r*s = .30 – .49, *p*s <.001). I standardized and then averaged these measures to create a composite score of Wave 4 aggression.

Assessing Skewness

I examined the skewness of all the major study variables. Waves 1-3 exposure to EPV and Wave 1 PTS were not significantly skewed, emotional sensitivity to EPV was negatively skewed, and all remaining major study variables were positively skewed. The variable of

emotional sensitivity to ethnic political violence was reverse coded to allow for Log10 transformation, as it was negatively skewed. I computed a Log10 transformation of the skewed variables to attempt to normalize them. After a Log 10 transformation, Wave 4 exposure to EPV and Wave 4 aggression were no longer skewed, and the following had reduced skewness: Wave 4 internalized symptoms, emotional sensitivity to EPV, and normative beliefs about violence. The descriptive statistics of the major variables (raw and transformed) can be found in Table 1.

Demographic Differences in the Major Study Variables

To determine if any demographic variables (region, age, sex, average parent education) needed to be statistically controlled in the major analyses (i.e., moderated regression analyses), I assessed the relations between the demographic variables and major study variables. Correlation analyses were used for assessing relations between average parent education and major study variables (Table 2): average parent education was significantly correlated with predictor (Waves 1-3 exposure to EPV) and outcome variables (Wave 4 internalized symptoms and Wave 4 aggression), as well as additional covariates (Wave 1 PTS and Wave 1 aggression) with a range of rs = -.10 – -.33, p < .01- .001, so I decided to control for parent education in the major study analyses.

To assess the relation of the categorical demographic variables (region, age, and sex) to the major study variables, I computed two MANOVAs (one in which the demographic variables predicted the set of predictor variables (Waves 1-3 and Wave 4 exposure to EPV), and one in which the demographic variables predicted the outcome variables (Wave 1 and Wave 4 aggression) and two ANOVAs (each in which the demographic variables predicted the set of potential moderator variables—emotional sensitivity to EPV and normative beliefs about aggression). The results from the MANOVAs and ANOVAs can be found in Tables 3 – 5.

Results demonstrated that Palestinians were more likely than Israeli Jews to report higher exposure to EPV (Waves 1-3 and Wave 4), Wave 1 PTS, Wave 4 internalizing symptoms, aggression (Wave 1 and Wave 4), and emotional sensitivity to violence. Younger cohorts were more likely to report higher Wave 1 PTS and Wave 4 aggression, while older cohorts were more likely to report more exposure to EPV (Waves 1-3 and Wave 4), Wave 1 aggression, and emotional sensitivity to EPV. Females were more likely than males to report higher levels of exposure to violence (Waves 1-3 and Wave 4), Wave 4 internalizing symptoms, and emotional sensitivity to violence, while males were more likely than females to report higher levels of aggression (Wave 1 and Wave 4). Overall, the results from the MANOVAs and ANOVAs demonstrated that all demographic variables had significant effects across the major study variables, and therefore, should be controlled in regression analyses.

Major Analyses

Hypothesis 1: There Will Be Significant Relations of Waves 1-3 and Wave 4 Exposure to Ethnic-Political Violence With Youth Adjustment; Specifically, Higher Levels of Exposure Are Expected to Be Related to Higher Levels of Internalizing and Aggressive Symptoms

This hypothesis was assessed by evaluating bivariate correlations of Log10 transformed variables (for the skewed variables: Wave 4 exposure to EPV, Wave 4 internalizing symptoms, Wave 1 aggression, and Wave 4 aggression) and untransformed variables (for those variables that were not skewed: Waves 1-3 exposure to EPV, Wave 1 PTS; see Table 2). Waves 1-3 and Wave 4 exposure to EPV were found to have modest to moderate associations with Wave 4 youth adjustment outcomes; specifically, Wave 4 exposure to EPV was significantly related to Wave 4 internalized symptoms ($r = .33$, $p < .01$) and Wave 4 aggression ($r = .22$, $p < .01$), and Waves 1-3 exposure to EPV was significantly related to Wave 4 internalized symptoms ($r = .19$,

p <.01) and Wave 4 aggression (r = .15, p <.01). Thus, as hypothesized, higher levels of exposure to Waves 1-3 and Wave 4 exposure to EPV were related to higher levels of internalizing symptoms and aggression.

I also hypothesized that Wave 4 exposure to EPV (compared to Waves 1-3 exposure) should have a higher association with youth adjustment, as it is more proximal to the youth adjustment indicators. Results partially supported this hypothesis. Wave 4 internalized symptoms had a significantly larger association with Wave 4 exposure to EPV than with Waves 1-3 exposure to EPV (z = 3.08, p = .002; Steiger, 1980; Lee & Preacher, 2013). However, there was no significant difference in between the associations of Wave 4 and Waves 1-3 exposure to EPV with Wave 4 aggression (z = 1.50, p = .134). Overall, this suggests that Wave 4 exposure to EPV is more significantly related to Wave 4 internalized symptoms and Waves 1-3 exposure to EPC is more significantly related to all Wave 1 indicators of youth adjustment.

Hypothesis 2: There Will Be Significant Relations of Emotional and Cognitive Desensitization With Youth Adjustment; Specifically, I Expect to Find Significant Positive Associations of Emotional Sensitization With Internalizing Symptoms, and Cognitive Desensitization With Aggression, as Well as Significant Negative Associations of Emotional Sensitization With Aggression, and Cognitive Desensitization With Internalizing Symptoms

This hypothesis was assessed by also evaluating bivariate correlations of Log10 transformed variables (for the skewed variables: Wave 4 internalizing symptoms, Wave 1 aggression, and Wave 4 aggression, emotional sensitivity to EPV, normative beliefs about aggression; see Table 2). Recall that the emotional sensitization to EPV measure was reverse coded to allow for Log10 transformation, so lower scores indicate higher levels of emotional sensitivity to EPV; and it was hypothesized that emotional sensitization to EPV would have

modest to moderate associations with internalizing symptoms (positive relation) and aggression (negative relation). Results partially support this hypothesis, as there were modest to moderate associations with youth adjustment outcomes (Wave 4 internalized symptoms and aggression); the associations were positive for Wave 4 internalizing symptoms (r = -.31, p = .01; again, low scores of emotional sensitivity to EPV indicate higher endorsement of emotional sensitivity to EPV) and for Wave 4 aggression (r = -.15, p = .01). There was a significant difference between the correlations of emotional sensitivity to EPV and each youth adjustment outcome (z = 3.51, p < .01; Steiger, 1980; Lee & Preacher, 2013). In other words, higher emotional sensitivity to EPV was more strongly associated with Wave 4 internalized symptoms than with Wave 4 aggression.

Cognitive desensitization was measured using normative beliefs about aggression and it was hypothesized that normative beliefs about aggression would be modestly to moderately correlated with internalizing symptoms (negative relation) and aggression (positive relation). Results do show modest associations with youth adjustment outcomes (Wave 4 internalized symptoms and aggression); specifically, the associations were positive for Wave 4 internalizing symptoms (r = .21, p < .01) and for Wave 4 aggression (r = .15, p = .01). There was no significant difference between these correlations (z = 1.08, p = .283; Steiger, 1980; Lee & Preacher, 2013). This suggests that while normative beliefs are modestly associated with the youth adjustment outcomes, however, there was no significant difference between the correlations of normative beliefs with each of the youth adjustment outcomes.

Hypothesis 3: Emotional and Cognitive Desensitization to Ethnic-Political Violence Will Moderate the Relation Between Exposure to Ethnic-Political Violence and Youth Adjustment

I computed moderated regression analyses using Log10 transformed variables (for the skewed variables: Wave 4 exposure to EPV, Wave 4 internalizing symptoms, Wave 1

aggression, and Wave 4 aggression, emotional sensitivity to EPV, Wave 4 normative beliefs about aggression) and untransformed variables (for the variables that were not skewed: Waves 1-3 exposure to EPV, Wave 1 PTS). These moderated regression analyses were used to test whether emotional and cognitive desensitization (i.e., emotional sensitivity to EPV and normative beliefs about aggression) moderated the relation between exposure to EPV and youth adjustment (i.e., Wave 4 internalizing symptoms and Wave 4 aggression; Tables 6 and 7). Specifically, I computed two moderated regression analyses evaluating the main effects of Wave 4 exposure to EPV, the hypothesized moderator variables, and their interactions, in predicting youth adjustment (one for internalizing symptoms, one for aggression); and two moderated regression analyses evaluating the main effects of Waves 1-3 exposure to EPV, the hypothesized moderator variables, and their interactions, in predicting youth adjustment (one for internalizing symptoms, one for aggression). These moderated regression analyses were computed using the PROCESS macro for SPSS (Hayes, 2017).

Wave 4 Exposure to Ethnic-Political Violence Predicting Internalizing Symptoms and Aggression. I computed two moderated regression analyses to test the relation between Wave 4 exposure to EPV and youth adjustment, one for each outcome variable (Wave 4 internalizing symptoms and aggression; see Table 6). In each regression model, I included as predictors: Wave 4 exposure to EPV, both potential moderators (emotional sensitivity to EPV and normative beliefs about aggression), and interaction terms (Wave 4 exposure to EPV x emotional sensitivity to EPV, Wave 4 exposure to EPV x normative beliefs about aggression); in addition, I included the following covariates: region, age, sex, average parent education, Waves 1-3 exposure to EPV, and the Wave 1 indicator of the outcome (Wave 1 PTS in the regression predicting Wave 4 internalizing symptoms or Wave 1 aggression in the regression predicting

Wave 4 aggression). Again, as mentioned above, Log10 transformed variables (for the skewed variables: Wave 4 exposure to EPV, Wave 4 internalizing symptoms, Wave 1 aggression, and Wave 4 aggression, emotional sensitivity to EPV, normative beliefs about aggression) and untransformed variables (variables that were not skewed: Waves 1-3 exposure to EPV, Wave 1 PTS) were used in all regression analyses.

Predicting Wave 4 Internalizing Symptoms. In this model, there were significant main effects for Wave 4 exposure to EPV and the hypothesized moderators predicting Wave 4 internalizing symptoms. The overall model did fit the data well, F (11, 547) = 16.29, $p < .001$. Specifically, the pattern of main effects mirrored the bivariate correlation results reported above: higher levels of exposure to EPV, higher levels of sensitivity to violence, and higher levels of normative beliefs about aggression all predicted higher levels of internalizing symptoms. These results control for all the covariates and suggest that these main effect relations are robust. There was a marginally significant interaction between Wave 4 exposure to EPV and emotional sensitivity to EPV, but no significant interaction between Wave 4 exposure to EPV and normative beliefs about aggression. This does not support my hypothesis that the relation between Wave 4 exposure to EPV and Wave 4 internalizing symptoms would be: a) positive and stronger among individuals with higher levels of emotional sensitivity to EPV; or b) positive and stronger among those among individuals with lower levels of normative beliefs about aggression. While the interaction between Wave 4 exposure to EPV and emotional sensitivity to EPV approached significance, I examined this interaction for exploratory purposes, as this had not been done before within the context of EPV. To graph the marginally significant interaction, I reran the PROCESS model by controlling for the non-significant hypothesized moderator (normative beliefs about aggression) and examined the interaction of EPV x the emotional

sensitivity to EPV; see Appendix B). See Figure 3 for visual representation of the marginally significant moderation effect. The figure demonstrates that at higher levels of emotional sensitivity to EPV, Wave 4 exposure to EPV has a stronger effect on Wave 4 internalized symptoms than at lower levels of emotional sensitivity.

Predicting Wave 4 Aggression. In this model, there were significant main effects for Wave 4 exposure to EPV and the hypothesized moderators predicting Wave 4 aggression. The overall model did fit the data well, F (11, 548) = 14.23, $p < .001$. Specifically, the pattern of main effects mirrored the bivariate correlation results reported above: higher levels of exposure to EPV, higher levels of sensitivity to violence, and higher levels of normative beliefs about aggression all predicted higher levels of aggression. These results control for all the covariates and suggest that these main effect relations are robust. However, no interaction terms were significant (see Table 6), indicating that there was no evidence of moderation of an exposure effect on Wave 4 aggression regardless of levels of emotional sensitivity to violence or normative beliefs about aggression. Thus, these results did not support my hypothesis that the relation between Wave 4 exposure to EPV and Wave 4 aggression would be positive and stronger among individuals with higher levels of normative beliefs about aggression.

Waves 1-3 Exposure to Ethnic-Political Violence Predicting Internalizing Symptoms and Aggression. I computed two moderated regression analyses to test the relation between Waves 1-3 exposure to EPV and youth adjustment, one for each outcome variable (Wave 4 internalizing symptoms and aggression; see Table 7). In each regression model, I included as predictors: Waves 1-3 exposure to EPV, both potential moderators (emotional sensitivity to EPV and normative beliefs about aggression), and interaction terms (Waves 1-3 exposure to EPV x emotional sensitivity to EPV, Waves 1-3 exposure to EPV x normative beliefs about aggression);

in addition, I included the following covariates: region, age, sex, average parent education, and the Wave 1 indicator of the outcome (Wave 1 PTS in the regression predicting Wave 4 internalizing symptoms or Wave 1 aggression in the regression predicting Wave 4 aggression).

Predicting Wave 4 Internalizing Symptoms. In this model, there were significant main effects of Waves 1-3 exposure to EPV and the hypothesized moderators significantly predicting Wave 4 internalizing symptoms. The overall model did fit the data well, F (10, 548) = 14.32, $p <$ .001. Specifically, the pattern of main effects mirrored the bivariate correlation results reported above: higher levels of exposure to Waves 1-3 EPV, higher levels of sensitivity to violence, and higher levels of normative beliefs about aggression all predicted higher levels of aggression. These results control for all the covariates and suggest that these main effect relations are robust. Similar to the regression results for Wave 4 exposure to EPV and Wave 4 internalizing symptoms, there was a marginally significant interaction between Waves 1-3 exposure to EPV and emotional sensitivity to EPV, but no significant interaction between Wave 4 exposure to EPV and normative beliefs about aggression. This does not support my hypothesis that the relation between Waves 1-3 exposure to EPV and Wave 4 internalizing symptoms would be: a) positive and stronger among individuals with higher levels of emotional sensitivity to EPV, or b) positive and stronger among individuals with lower levels of normative beliefs about aggression. While the interaction between Waves 1-3 exposure to EPV and emotional sensitivity to EPV approached significance, I examined this for exploratory purposes, as had not been done before within the context of EPV. To graph the marginally significant interaction, I reran the PROCESS model by controlling for the non-significant moderator (normative beliefs about aggression) and included only the marginally significant interaction of Waves 1-3 exposure to EPV x the significant hypothesized moderator (emotional sensitivity to EPV; see Appendix C). See Figure

4 for visual representation of the marginally significant moderation effect. The figure demonstrates that at higher levels of emotional sensitivity to EPV, Waves 1-3 exposure to EPV has a stronger effect on Wave 4 internalizing symptoms than at lower levels of emotional sensitivity. This mirrors the results reported above when predicting Wave 4 aggression with the Wave 4 exposure to EPV score. Emotional sensitivity to violence may potentially moderate the effects of both earlier and later exposure to EPV on internalizing symptoms.

Predicting Wave 4 Aggression. In this model, there were significant main effects of the hypothesized moderators significantly predicting Wave 4 aggression. The overall model did fit the data well, F (9, 550) = 16.41, $p < .001$. Specifically, the pattern of main effects did not mirror the bivariate correlation results reported above: Waves 1-3 exposure to EPV did not predict higher levels of aggression, while higher levels of sensitivity to violence and higher levels of normative beliefs about aggression all predicted higher levels of aggression. These results control for all the covariates and suggest that these main effect relations are robust. In addition, there was a significant interaction between Waves 1-3 exposure to EPV and normative beliefs about aggression. To graph the significant interaction, I reran the PROCESS model by controlling for the non-significant moderator (emotional sensitivity to EPV) and included only the significant interaction of Waves 1-3 exposure to EPV x the significant hypothesized moderator (normative beliefs about aggression; see Appendix C). See Figure 5 for visual representation of the moderation effect. The figure demonstrates that at high levels of normative beliefs about aggression, Waves 1-3 exposure to EPV has a significant negative effect on Wave 4 aggression, whereas at lower levels of normative beliefs about aggression, there is no significant effect of early exposure to EPV on Wave 4 aggression. I hypothesized a stronger positive relation between early exposure and later aggression among those with higher levels of

normative beliefs about aggression, so these results do not support my hypothesis. However, it is important to note that among those youth with low or moderate normative beliefs about aggression, their Wave 4 aggression levels are consistently lower than for those youth with high levels of normative beliefs about aggression.

Supplementary Analyses

Supplementary analyses were computed to examine the fit of both a linear and quadratic model in further explaining the relation between Wave 4 exposure to EPV and youth adjustment indicators (Wave 4 internalizing symptoms and Wave 4 aggression). Specifically, the pathological adaptation model (Ng-Mak et al., 2002, 2004) hypothesizes that a linear model will most accurately reflect the relation between Wave 4 exposure to EPV and aggression, and a quadratic model would more accurately reflect the relation between Wave 4 exposure to EPV and internalizing symptoms. To examine the fit of a linear and quadratic model for the relations between Wave 4 exposure to EPV and youth adjustment indicators, the curve estimation regression procedure in SPSS was computed. Results indicated that the linear model accounted for 11.1% of the variance in Wave 4 internalizing symptoms ($F(1,558) = 69.6$, $p < .001$), and the quadratic model did not explain significant additional variance in Wave 4 internalizing symptoms, beyond the linear model ($\Delta R^2 = .001$, $F(1,557) = .80$, $p < .37$). When examining the relation between Wave 4 exposure to EPV and Wave 4 aggression, results indicated that the linear model accounted for 5.0% of the variance in Wave 4 aggression ($F(1,558) = 29.5$, $p < .001$), and the quadratic model explained an additional and significant 1.2% variance in Wave 4 aggression, beyond the linear model ($\Delta R^2 = .01$, $F(1,558) = 6.98$, $p < .008$). The quadratic effect for Wave 4 exposure to EPV on aggression was negative (B = -1.34, $p = .008$), suggesting that as exposure increased aggression increased to a certain point and then began to decrease. This is

counter to the pathological adaptation model (Ng-Mak et al., 2002, 2004) that would suggest that exposure to violence and aggression would best fit a linear relation and exposure to violence and internalizing symptoms would best fit a quadratic model.

DISCUSSION

Exposure to violence and its impact on youth has been a major area of interest for many years. Many theoretical models have examined mechanisms by which exposure to violence relates to youth adjustment outcomes such as aggression and emotional distress. Though research has been conducted to examine the emotional and cognitive reactions to community violence and violence depicted in media, less work has been done to examine such reactions to EPV. In this thesis, I examined exposure to EPV, emotional and cognitive desensitization, and youth adjustment in the context of the Palestinian- Israeli conflict. I used data from the 4-wave longitudinal sample of Israeli Jewish and Palestinian youth collected by Huesmann, Dubow, Boxer et al. (Boxer et al., 2013; Dubow et al., 2019; Huesmann et al., 2017) to analyze the relations among these variables. My specific hypotheses were as follows: 1) I hypothesized that there would be significant relations of cumulative (Waves 1-3) and concurrent exposure (Wave 4) to EPV with youth adjustment; 2) I hypothesized there would be significant relations of emotional and cognitive desensitization with youth adjustment; and 3) I hypothesized that emotional and cognitive desensitization to EPV would moderate the relation between exposure to EPV and youth adjustment.

In this Discussion section, I will first review the results of the demographic differences in the major study variables, and then for each hypothesis, I will review my findings, how those findings compare with other studies in the literature, and the implications of the findings. Finally, I will present limitations and conclusions.

Demographic Differences in the Major Study Variables

In preliminary analyses, I found significant ethnic-group differences in exposure to EPV and youth adjustment. Compared to Israeli Jewish youth, Palestinian youth had significantly

higher reports of exposure to EPV (Waves 1-3 and Wave 4), PTS (Wave 1), internalizing symptoms (Wave 4), aggression (Waves 1-3 and Wave 4), and emotional sensitivity to EPV. Previous studies examining the 4-wave longitudinal Palestinian-Israeli Exposure to Violence Study (e.g., Boxer et al., 2013; Dubow et al., 2010; Dubow et al., 2012; Dubow et al., 2019; Huesmann et al., 2018) have already identified most of these differences, highlighting that Palestinian children are at higher risk for exposure to violence, distress, and aggression. Recent literature reviews that examine the relations between the Palestinian-Israeli conflict and youth outcomes have found similar results: a meta-analysis examining 20 studies found significant differences among exposure to EPV and overall symptoms between Israeli Jewish and Palestinian youth (Sloane et al., 2017), and a review by Miller-Graff and Cummings (2017) noted higher rates of exposure to violence, distress, and aggression in Palestinian youth compared to Israeli youth. Overall, my results underscore the negative impact and relation of exposure to EPV on youth who are experiencing the Palestinian-Israeli conflict.

Differences across age demonstrated that older cohorts were more likely to report more exposure to EPV (Waves 1-3 and Wave 4) and Wave 1 aggression, and this is similar to other studies that have reported age differences in exposure and associated emotional and behavioral outcomes within the Palestinian-Israeli context (El-Khodary & Samara, 2020; Haj-Yahia et al., 2021; Massarwi & Khoury-Kassabri, 2017). Older cohorts also had higher emotional sensitivity to EPV, indicating that they are more sensitive to witnessing violence than their younger peers.

Across all demographic variables (region, age, and sex), there were no significant differences in reports of normative beliefs about aggression. These results regarding normative beliefs deviate from some findings in the literature, as normative beliefs have been shown to be

higher in males and those with higher exposure to violence (Boxer et al., 2011). Normative beliefs about aggression will be discussed further.

In addition, I found gender differences in the major study variables, such that males reported higher exposure to EPV (Waves 1-3 and Wave 4) and aggression (Wave 1 and Wave 4), and females reported higher emotional sensitivity to EPV and Wave 4 internalizing symptoms. These findings contribute to previous studies that have examined Palestinian and Israeli youth and similarly found that male youth have higher levels of exposure to violence and externalizing problems (Haj-Yahia et al., 2021; El-Khodary & Samara, 2020; Qouta, Punamäki, Miller, & El-Sarraj 2008), and female youth have higher levels of PTS (Haj-Yahia et al., 2018, 2021; El-Khodary & Samara, 2020; Laufer and Solomon 2009). Scholars have suggested that gender differences may be impacted by a cultural framework that emphasizes gendered social roles and perceptions, where females are encouraged to internalize and males externalize through aggression and assertive behaviours (Darawshy & Haj-Yahi, 2018; El-Khodary & Samara, 2020). Future study should continue to explore how social perceptions of gender impact exposure to violence and youth adjustment, as well as examine interventions that address risk factors and remain culturally sensitive.

The Relation Between Exposure to Ethnic-Political Violence and Youth Adjustment

Based on theory and previous literature, I predicted that there would be significant associations of exposure to EPV with youth adjustment indicators in Wave 4; specifically, I expected that higher levels of exposure to EPV would be associated with higher levels of internalizing symptoms and aggression in Wave 4. My results supported this, as higher levels of witnessing EPV in Waves 1-3 and Wave 4 were related to higher levels of internalizing symptoms and aggression in Wave 4. These findings are consistent with social-cognitive

information-processing models that suggest more exposure to violence would predict higher reports of behavioural problems (Guerra & Huesmann, 2004; Huesmann, 1998; Huesmann & Kirwil, 2007). In studies evaluating Palestinian youth, similar relations between higher exposure to EPV and elevated PTS and aggressive behaviours have been found (El-Khodary & Samara, 2020; Giacaman et al., 2007; Qouta et al., 2005; Qouta, Punamaki, & Sarraj, 2008; Qouta, Punamäki, Miller, & El-Sarraj 2008); similarly, higher exposure to EPV in studies examining Israeli youth demonstrated more distress and externalizing problems (Nuttman-Shwartz, 2019; Pat-Horenczyk, 2019; Zamir et al., 2020). Additionally, a meta-analysis on the Palestinian-Israeli conflict found that exposure to EPV (via direct, indirect, and media exposure) had significant effects on emotional distress and externalized behaviour (Slone et al., 2017).

Additionally, my results are similar to the large body of literature that emphasizes dose-response patterns of violence exposure in youth from western studies. Youth's repeated exposure to violence within a variety of contexts, such as community violence in urban centers in the United States, are related to increased risk for a variety of maladaptive youth adjustment outcomes, such as internalizing symptomology and emotional distress (Heinze et al., 2017; Guerra et al., 2003; McLaughlin et al., 2017), behaviour dysfunction (DaViera & Roy, 2019), delinquency (Turner et al., 2016), and externalizing problems, such as aggressive behaviour (Anderson et al., 2003, 2010). This suggests that the core detrimental effects of witnessing violence on maladaptive adjustment are generalizable to a diverse range of settings. This further emphasizes the importance of addressing exposure to violence across contexts in the development and implementation of interventions that aim to reduce the risk and harm of violence in youth.

I also expected to find that exposure to EPV in Waves 1-3 and Wave 4 would have higher associations with proximal youth adjustment indicators (i.e., outcome measures that were taken closer to the time of exposure to EPV measurement). Results mostly supported this assertion. Wave 4 exposure to EPV, in comparison to earlier exposure, was more strongly associated with Wave 4 internalizing symptoms, however, both Waves 1-3 and Wave 4 exposure to EPV were similarly associated with Wave 4 aggression. While further investigation is necessary to understand the relations between trajectories of exposure to EPV and trajectories of youth adjustment, these results also suggest that previous exposures to EPV may not be as important as more proximal exposures in impacting late adolescents'/young adults' current experiences with internalizing symptoms. Additionally, there may be differences to age-related abilities in cognitive and emotional processing of exposure to violence, such that participants at younger ages may process it differently than older youth. Of course, this may be difficult to tease apart in contexts of persistent exposure to EPV. Examination of both distal and proximal exposure to EPV and youth adjustment provide insight into understanding the relation between exposure to EPV and adjustment.

Additionally, the relations between Wave 4 exposure to EPV and youth adjustment symptoms did not support the pathological adaptation model (Ng Mak et al., 2002, 2004), which posits that aggression would best fit a linear model, and internalizing symptoms would best fit a quadratic model. The opposite was found in this study, specifically, internalizing symptoms reflected a linear relation and aggression reflected a negative quadratic model, with aggression increasing and then decreasing at a certain point. It may be that the specific context of EPV and additional variables may account for these unexpected results, such as ethnic identity and political engagement.

The Relation of Emotional Sensitivity to Ethnic-Political Violence and Normative Beliefs About Aggression to Youth Adjustment

I hypothesized that emotional sensitivity to violence and normative beliefs justifying aggression (desensitization to violence) would be significantly associated with youth adjustment indicators; specifically, I predicted that higher levels of emotional sensitivity to EPV would be associated with higher levels of internalizing symptoms and lower levels of aggression, while higher levels of normative beliefs justifying aggression would be associated with higher levels of aggression and lower levels of internalizing symptoms. Results partially supported these assertions.

Emotional sensitivity to EPV was found to have positive associations with both indicators of youth adjustment, such that higher levels of emotional sensitivity to EPV were related to higher levels of internalizing symptoms and aggression. The positive association of emotional sensitivity to EPV to internalized symptoms is congruent with previous literature exploring this association; however, the positive relation with aggression is counter to what I expected. Social-cognitive-information-processing models (e.g., Guerra & Huesmann, 2004; Huesmann, 1998; Huesmann & Kirwil, 2007) suggest that aggressive responding is influenced by recall and application of aggressive social scripts. These theoretical models imply that those who have higher emotional sensitivity to these aggressive scripts would become distressed and this distress would be a deterrent to engaging in externalizing behaviour, thus resulting in a reduction of aggressive responding and increased internalizing behaviours associated with the distress. This has been demonstrated in studies using a variety of different measures such as self-report measures (e.g., Boxer et al., 2008; Gaylord-Harden et al., 2017a; Mrug et al., 2016) and physiological responses (e.g., skin conductance response to aggressive stimuli; Krahe et al.,

2011). While these noted studies have supported the theory that heightened emotional sensitivity decreases aggressive responding, there also has been evidence that supports emotional sensitivity as a component of aggressive behaviour. Similar to this study's results, one study found that hyperarousal symptoms were related to more aggression and mediated the association between exposure to violence and aggression in male youth in a US sample (Gaylord-Harden et al., 2017b). Researchers that have found the relation of heightened emotional sensitivity with higher levels of aggression have suggested that youth may not have developed coping and emotional regulation skills to manage their emotional reactions, and therefore act impulsively to their distress (Gaylord-Harden et al., 2017; Heleniak et al., 2017; Jouriles et al., 2012); additionally, hyperarousal may also make it difficult to evaluate environmental and social cues and a hostile attribution bias may result with more impulsive aggression (Gaylord-Harden et al., 2017b; Heleniak et al., 2017; Jouriles et al., 2012). Therefore, it is important to continue exploring emotional sensitivity to violence, particularly within the context of ethnic and politically motivated violence to continue building evidence for this phenomenon.

Normative beliefs about aggression were found to have significant positive relations with aggression and internalizing symptoms, partially supporting my hypothesis. Additionally, normative beliefs about aggression were not more strongly related to aggression than internalizing symptoms. The significant association between normative beliefs about aggression and aggressive behavior has been identified with the same Palestinian and Israeli sample that was analyzed in this study (e.g., Huesmann et al., 2017), as well as other samples within the Palestinian-Israeli conflict (Massarwi & Khoury-Kassabri, 2017). Additionally, normative beliefs about aggression have shown strong associations with increased perpetration of aggression across a variety of additional western settings with youth, such as in the context of

community violence (Boxer et al., 2011; Gaylord-Harden et al., 2017; McMahon et al., 2009), interpersonal violence (Reyes et al., 2016), and online gaming (Hilvert-Bruce et al., 2020).

However, some findings regarding normative beliefs about aggression were counter to what I hypothesized. For example, theoretical models assert that normative beliefs about aggression (i.e., the cognitive belief system that supports the appropriateness of aggressive responding) would be more strongly related to aggression compared to internalizing symptoms, and that normative beliefs supporting aggression would be negatively associated with internalizing symptoms because more cognitive acceptance of violence would result in lower levels of emotional distress (Guerra & Huesmann, 2004; Huesmann, 2018; Huesmann & Kirwil, 2007; Ng-Mak et al., 2002, 2004). Previous studies with adults have demonstrated non-significant relations between normative beliefs about aggression and distress (e.g., Boxer et al., 2011; Krahé et al., 2011). However, a previous analysis of the same Palestinian and Israeli sample (Huesmann et al., 2017) and a study of African American youth (Gaylord et al., 2017) found that normative beliefs about aggression were positively related to depressive symptoms and emotional distress. As previously mentioned, it may be that individuals may not have emotional regulation skills to effectively address their distress and their associated beliefs related to aggression (Gaylord-Harden et al., 2017; Heleniak et al., 2017; Jouriles et al., 2012).

Potential Moderating Effects of Emotional Sensitivity to Ethnic-Political Violence and Normative Beliefs About Aggression on the Relation Between Exposure to Ethnic-Political Violence and Youth Adjustment

Finally, I examined how emotional and cognitive desensitization (i.e., emotional sensitivity to violence and normative beliefs about aggression) impacted the relation between exposure to EPV (Waves 1-3 and Wave 4) and the youth adjustment indicators (Wave 4

aggression and Wave 4 internalizing symptoms). I hypothesized that emotional and cognitive desensitization would have a moderating effect, specifically: a) at high levels of emotional sensitivity to violence, the relation between exposure to EPV and internalizing symptoms would be positive and stronger than at lower levels of emotional sensitivity to violence; b) at low levels of normative beliefs about aggression, the relation between exposure to EPV and internalizing symptoms would be positive and stronger than at higher levels of normative beliefs about aggression; c) at high levels of normative beliefs about aggression, the relation between exposure to EPV and aggression would be positive and stronger than at lower levels of normative beliefs about aggression; and d) at low levels of emotional sensitivity to violence, the relation between exposure to EPV and aggression would be positive and stronger than at higher levels of emotional sensitivity to violence.

Emotional Sensitivity to Violence Moderating the Relation Between Exposure to Ethnic-Political Violence and Youth Adjustment Indicators

I did not find support for the hypothesis that emotional sensitivity to violence would amplify the positive relation between exposure to EPV and internalizing symptoms. However, in probing the interaction for exploratory purposes, the interaction approached significance, and the results revealed that emotional sensitivity to EPV did strengthen the relation between exposure to EPV and internalizing symptoms, such that the relation between exposure to EPV and internalizing symptoms was stronger at higher levels of emotional sensitivity to EPV. In other words, higher exposure of EPV in youth is potentially related to more internalized distress, and that this is potentially amplified by greater emotional arousal to witnessing EPV. This finding is similar to the large body of literature on risk factors for internalized symptoms, specifically, heightened emotional experiences to violence in youth may exacerbate the already well-

established connection between witnessing violence and internalizing symptoms (e.g., Boxer et al., 2008, 2011; Hammen et al., 2000; Heleniak et al., 2017). Additionally, these findings contribute to the studies that explore the relations between exposure to violence, internalized symptoms, and emotional sensitivity to violence by expanding this phenomenon to youth within ethnic-political contexts. These findings potentially suggest that youth with higher levels of emotional sensitivity to violence may be more susceptible to developing internalized symptoms in the context of higher levels of witnessing violence. In conjunction with my findings that normative beliefs did not impact the relation between witnessing violence and internalized symptoms, these results indicate that it may be more important to target emotional factors, rather than cognitive factors, within research and in the development of interventions that target youth's internalized symptoms.

I did not find significant interactions of emotional sensitivity to violence and Waves 1-3 and Wave 4 exposure to EPV in predicting aggression. However, as noted earlier, there were main effects of emotional sensitivity to violence to predicting aggression. This suggests that higher levels of emotional sensitivity to predicting higher levels of aggression was independent of one's level of reported exposure to EPV. So, this is counter to social-cognitive information-processing models which would posit that individuals with higher levels of emotional sensitivity to violence would show a decrease in aggressive behaviour due to discomfort associated with witnessing violence (e.g., Guerra & Huesmann, 2004; Huesmann, 1998; Huesmann & Kirwil, 2007) and previous studies that have found emotional sensitivity to violence as an important factor that impacts the relation between exposure to violence and aggression (Boxer et al., 2011; Gaylord-Harden et al., 2016; Mrug et al., 2016). It may be that within the context of persistent

exposure to ethnic-political conflict, emotional factors may not be as important as cognitive factors in relations with aggression, although further research needs to replicate this finding.

Normative Beliefs About Violence Moderating the Relation Between Exposure to EPV and Youth Adjustment Indicators

My findings were mixed in supporting the hypothesis that normative beliefs about aggression would strengthen the relation between exposure to EPV and aggression. I found that normative beliefs about aggression had a significant negative interaction with exposure to Waves 1-3 exposure to EPV, such that the effect of exposure to EPV on aggression was weakened with higher levels normative beliefs about aggression. In other words, for those with higher normative beliefs about aggression, higher levels of exposure to violence led to lower levels of aggression, and those with lower levels of normative beliefs about aggression, exposure to violence had no effect. While I had predicted that normative beliefs would impact the relation between exposure to violence and aggression, the direction is counter to theory and previous examinations of exposure to violence and normative beliefs (Boxer et al., 2011; Massarwi & Khoury-Kassabri, 2017; McMahon et al., 2009). However, it is important to note that even though there was a negative relation between exposure to EPV and aggression for those with high normative beliefs about aggression, these youth still reported higher levels of aggression regardless of level of exposure to EPV compared to youth with moderate and low levels of normative beliefs about aggression. It is possible that the negative relation for these youth is a result of regression to the mean, but there may be additional factors that contributed to this moderation finding that were not accounted for in this study, such as additional socialization, strength of ethnic identity, political engagement, etc. For example, aggressive behaviour may be replaced by more participation in political events, rallies, and protests, etc. Still, the finding that for youth with

medium and low levels of normative beliefs about aggression there was no significant relation between exposure to EPV and aggression supports a potential protective effect for lower levels of normative beliefs justifying aggression. These findings build upon previous studies and further support the need for focus on cognitive mechanisms to aid in the reduction of aggressive behaviour.

Limitations

My findings should be interpreted in light of some potential limitations. First, moderation analyses of emotional sensitivity to EPV impacting the relation between exposure to EPV (both Waves 1-3 and Wave 4) were not significant at $p < .05$, however, exploratory analyses of the interactions did provide interesting findings. Such results need to be examined in future research to examine if the interactions can be replicated within the context of EPV.

Second, many of my measures were self-report and parent reports of youth behaviour, leading to concerns about self report bias. Self-report measures can be subject to same-informant biases and can impact responding, such as over- or under-reporting of exposure to EPV and symptoms or behaviours. Also, biased parent perceptions of the child can influence positive or negative responding patterns regarding their child's behaviour. Future research should examine reports by collateral informants (e.g., additional family, friends, teachers, etc.) and secondary sources of information (e.g., archival school or police records). Additional measures could also be considered in examining some constructs; for example, reactivity to violence and fear-related stress have been measured through physiological means such as skin conductance, heart rate, eye-blink response, and facial expressivity (Armstrong et al., 2019; Baker et al. 2013; Barry et al. 2008; Krahé et al., 2011; McTeague et al., 2010) and can allow for an expanded view of

emotional desensitization. These different approaches can provide a rich operationalization of these concepts for future studies.

Thirdly, while this study did utilize the strengths of a longitudinal design (e.g., multiple waves of data, controlling for earlier measures of variables), certain variables were only measured at one time point. Emotional sensitivity to violence and the normative beliefs about aggression measure were only assessed during Wave 4 and this restricts what statistical models could be utilized and the interpretation of the results. Measuring variables at only one time point limits our understanding of the temporal precedence of these variables and their subsequent relations; for example, I was unable to examine the degree to which emotional sensitivity precedes internalizing symptoms and possible temporal mediation effects of the link from exposure to violence to normative beliefs/emotional sensitivity to youth adjustment. It may not be a singular direction of effects where there is a sequential set of effects; instead, these relations may create feedback loops or different patterns of temporal precedence. For example, higher normative beliefs about aggression could lead to youth seeking more exposures to violence, which then further increase normative beliefs about aggression. Or more experiences of internalizing symptoms could lead to more emotional sensitivity to EPV, and then decreases in exposure to EPV due to avoidance behaviours. Assessment of these variables at multiple time points would allow further examination of temporal changes among these variables.

Also, while the specific context of EPV introduces a more novel approach to examining exposure to violence and youth outcomes, the specific context of EPV and the Palestinian-Israeli conflict may present a unique context, different from studies of these variables in a neighborhood violence context. It may be that additional variables, such as beliefs and stereotypes about the outgroups (Huesmann et al., 2012; Merrilees et al., 2013), ethnic identity (Dubow et al., 2019;

McMahon & Watts, 2002), or peer influences (Khoury-Kassabri et al., 2020) could impact EPV exposure effects. In addition, EPV does not operate in a vacuum—there may be violence exposure across additional contexts. Boxer et al. (2013), using the same data set as I used, found that EPV influenced violence in youth's environment, such as school and home. For example, it may be interesting to continue exploring the interrelations of violence across social systems and emotional sensitization.

Finally, my analyses did not consider other potential protective factors that might have promoted resilience when faced with adverse situations, such as witnessing violence. This study examined emotional and cognitive factors that may increase risk of maladaptive adjustment when youth are exposed to more EPV. However, there may be protective factors, such as social supports (e.g., in the family, peer, school, community, etc.) or individual factors (e.g., coping skills) that can buffer the relation between witnessing EPV and maladaptive adjustment in youth. For example, recent studies have found promising results regarding parental involvement (Khoury-Kassabri et al., 2020) and social support (Muhammad et al., 2021) for youth within the Palestinian-Israeli conflict. Further exploration should examine these protective factors as they relate to exposure to EPV, youth adjustment, and emotional and cognitive mechanisms.

Conclusions

I examined the relations of exposure to EPV, emotional and cognitive desensitization, and youth adjustment in a youth sample exposed to the Palestinian-Israeli conflict. Specifically, social-cognitive information-processing (e.g., Guerra & Huesmann, 2004; Huesmann, 1998; Huesmann & Kirwil, 2007) and pathological adaptation (Ng-Mak et al., 2002) models were applied to the exploration of how emotional and cognitive factors might affect the relation between exposure to EPV and maladaptive youth adjustment. This is a novel study in exploring

simultaneously indices of emotional and cognitive desensitization in the context of exposure to EPV and its associations with youth adjustment. Results demonstrated that the well-established positive relation of witnessing violence and maladaptive youth adjustment can also be applied within the context of EPV; specifically, higher exposure to EPV was related to higher reports of internalizing symptoms and aggression in youth, as has been reported before with analyses using this data set (Boxer et al., 2013; Dubow et al., 2010; Dubow et al., 2012; Dubow et al., 2019; Huesmann et al., 2017; Huesmann et al., 2018). When adjusted for demographic variables and earlier reports of youth adjustment, higher exposure to EPV across all waves predicted higher internalizing symptoms and aggression at Wave 4. Additionally, for youth holding lower levels of normative beliefs about aggression, exposure to EPV was unrelated to aggression, suggesting lower normative beliefs about violence may be protective against witnessing EPV and aggressive behaviours in youth. Results also indicated that emotional sensitization to EPV (i.e., higher emotional sensitivity to EPV) may be of interest for future research, as emotional sensitivity to violence may strengthen the relation between exposure to EPV and internalizing symptoms at Wave 4. These findings expand our understanding of youth exposure to ethnic and politically motivated violence and how emotional sensitive and cognitive beliefs about violence impact and can aid in the differentiation of their experiences with internalizing symptoms and aggressive behaviour.

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APPENDIX A: TABLES

Table 1

Descriptive Statistics Among the Major Study Variables

Variable	*n*	*M*	*SD*	Skewness (Raw)		Skewness (Transformed Log10)	
				Statistic	SE	Statistic	SE
1. Exposure to EPV (Waves 1-3)	562	.85	.35	.16	.10	-	-
2. Exposure to EPV (Wave 4) [a]	561	.83	.35	.65	.10	.03	.10
3. Emotional Sensitivity to EPV [ab]	561	1.81	.69	-.41	.10	-.38	.10
4. Normative Beliefs About Aggression [a]	560	1.30	.48	2.16	.10	1.51	.10
5. Post-Traumatic Stress (Wave 1)	562	1.29	.61	-.03	.10	-	-
6. Internalizing Symptoms (Wave 4) [a]	561	-.01	.88	1.48	.10	.54	.10
7. Aggression (Wave 1) [a]	562	.51	.34	.73	.10	.22	.10
8. Aggression (Wave 4) [a]	562	-.01	.70	.71	.10	-.07	.10

Note. EPV = Ethnic-Political Violence. *n, M,* and *SD* are from raw variables.

[a] Skewed variable and transformed by Log10 for final variables in correlation and regression analyses. [b] Variable was reverse-coded for log transformation, so lower scores indicate higher levels of emotional sensitivity to ethnic-political violence.

Table 2

Bivariate Correlations Among the Major Study Variables

Variable	1	2	3	4	5	6	7	8
1. Exposure to EPV (Waves 1-3)	-							
2. Exposure to EPV (Wave 4) [a]	.36**	-						
3. Emotional Sensitivity to EPV [ab]	-.12**	-.40**	-					
4. Normative Beliefs about Aggression [a]	.07	.10*	.08	-				
5. Post-Traumatic Stress (Wave 1)	.29**	.06	-.04	.05	-			
6. Internalizing Symptoms (Wave 4) [a]	.19**	.33**	-.31**	.21**	.18**	-		
7. Aggression (Wave 1) [a]	.36**	.07	-.08	.04	.20**	.16**	-	
8. Aggression (Wave 4) [a]	.15**	.22**	-.15**	.15**	.05	.37**	.36**	-

Note. EPV = Ethnic-Political Violence. *n, M,* and *SD* are from raw variables.

[a] Log10 transformed variable. [b] Variable was reverse-coded for log transformation, so lower scores indicate higher levels of emotional sensitivity to ethnic-political violence.

*$p < .05$. **$p < .01$.

Table 3

Region, Age, and Sex Differences in Exposure to Ethnic-Political Violence: Means, Standard Deviations, and MANOVA Results

Effect	Region		Age Cohort			Sex	
	Palestine ($N = 400$)	Israeli Jewish ($N = 161$)	8 ($N = 188$)	11 ($N = 201$)	14 ($N = 172$)	Female ($N = 289$)	Male ($N = 272$)
Overall MANOVA	$F(2,548) = 146.80^{**}$		$F(4,1096) = 14.61^{**}$			$F(2,548) = 13.07^{**}$	
	M *SE*	*M* *SE*	*M* *SE*	*M* *SE*	*M* *SE*	*M* *SE*	*M* *SE*
Exposure to EPV (Waves 1-3)	$.91_a$ .01	$.49_b$ .02	$.58_a$ .02	$.73_b$ .02	$.81_c$ .02	$.64_a$ .02	$.76_b$ .02
Univariate ANOVA	$F(1,549) = 293.19^{**}$		$F(2,549) = 29.66^{**}$			$F(1,549) = 24.01^{**}$	
	M *SE*	*M* *SE*	*M* *SE*	*M* *SE*	*M* *SE*	*M* *SE*	*M* *SE*
Exposure to EPV (Wave 4)	$.87_a$ .02	$.75_b$ .03	$.75_a$ .03	$.83_b$ .03	$.84_b$ .03	$.76_a$ .02	$.85_b$ .02
Univariate ANOVA	$F(1, 549) = 14.22^{**}$		$F(2,549) = 3.18^{*}$			$F(1,549) = 7.67^{**}$	

Note. EPV = Ethnic-Political Violence. Sex was scored: females = 0, males = 1. *F* values are based on Wilk's Lambda. Means are estimated marginal means. Means that do not share the same subscript are significantly different at $p < 0.05$.

$^{*}p < .05$. $^{**}p < .01$.

Table 4

Region, Age, and Sex Differences in Aggression and Internalizing Symptoms: Means, Standard Deviations, MANOVA Results

Effect	Region		Age Cohort			Sex	
	Palestine ($N = 400$)	Israeli Jewish ($N = 161$)	8 ($N = 187$)	11 ($N = 202$)	14 ($N = 172$)	Female ($N = 289$)	Male ($N = 272$)
Overall MANOVA	$F(4,546) = 23.99^{**}$		$F(8,1092) = 4.64^{**}$			$F(4,546) = 14.47^{**}$	
	M *SE*	*M* *SE*	*M* *SE*	*M* *SE*	*M* *SE*	*M* *SE*	*M* *SE*
Post-Traumatic Stress (Wave 1)	1.39_a .03	1.01_b .05	1.26_a .05	1.25_a .04	1.09_b .05	1.25_a .04	1.15_a .04
Univariate ANOVA	$F(1,549) = 49.8^{**}$		$F(2,549) = 3.98^{**}$			$F(1,549) = 3.59^{\dagger}$	
	M *SE*	*M* *SE*	*M* *SE*	*M* *SE*	*M* *SE*	*M* *SE*	*M* *SE*
Internalizing Symptoms (Wave 4)	$.07_a$ .04	$-.20_b$ .07	$-.20_{ab}$ .07	$.03_{ac}$ .07	$-.03_a$ .08	.05 .05	-0.18 .06
Univariate ANOVA	$F(1,549) = 11.0^{**}$		$F(2,549) = 3.03^{*}$			$F(1,549) = 7.69^{**}$	
	M *SE*	*M* *SE*	*M* *SE*	*M* *SE*	*M* *SE*	*M* *SE*	*M* *SE*
Aggression (Wave 1)	$.57_a$ .02	$.36_b$ .03	$.41_a$ .03	$.47_a$ .02	$.51_b$ .03	.39 .02	.54 .02
Univariate ANOVA	$F(1,549) = 50.3^{**}$		$F(2,549) = 3.17^{*}$			$F(1,549) = 29.16^{**}$	
	M *SE*	*M* *SE*	*M* *SE*	*M* *SE*	*M* *SE*	*M* *SE*	*M* *SE*
Aggression (Wave 4)	$.08_a$ -.22	$-.22_b$ .05	$.018_a$ .05	$-.08_a$ .05	$-.13_a$ .06	-.18 .04	.05 .05
Univariate ANOVA	$F(1,549) = 22.30^{**}$		$F(2,549) = 1.91^{*}$			$F(1,549) = 13.36^{**}$	

Note. Sex was scored: females = 0, males = 1. *F* values are based on Wilk's Lambda. Means are estimated marginal means. Means that do not share the same subscript are significantly different at $p < 0.05$.

$^{\dagger}p < .10$. $^{*}p < .05$. $^{**}p < .01$.

Table 5

Region, Age, and Sex Differences in Hypothesized Moderator Variables: Means, Standard Deviations, and ANOVA Results

Effect	Region		Age Cohort			Sex	
	Palestine (N = 400)	Israeli Jewish (N = 161)	8 (N = 188)	11 (N = 201)	14 (N = 172)	Female (N = 289)	Male (N = 272)
	M *SE*	*M* *SE*	*M* *SE*	*M* *SE*	*M* *SE*	*M* *SE*	*M* *SE*
Emotional Sensitivity to EPV	1.85_a .03	1.71_b .05	1.59_b .05	1.86_a .05	1.89_a .06	1.87_a .04	1.69_b .05
Univariate ANOVA	$F(1,549) = 4.77^*$		$F(2,549) = 9.83^*$			$F(1,549) = 8.07^{**}$	
	M *SE*	*M* *SE*	*M* *SE*	*M* *SE*	*M* *SE*	*M* *SE*	*M* *SE*
Normative Beliefs About Aggression	1.31_a .02	1.26_a .04	1.31_a .04	1.30_a .04	1.26_a .04	1.28_a .03	1.30_a .03
Univariate ANOVA	$F(1,548) = 1.37$		$F(2,548) = .50$			$F(1,549) = 7.69$	

Note. EPV = Ethnic-Political Violence. Sex was scored: females = 0, males = 1. *F* values are based on Wilk's Lambda. Means are estimated marginal means. Means that do not share the same subscript are significantly different at $p < 0.05$. Sex was scored: females = 0, males = 1.

$^*p < .05$. $^{**}p < .01$.

Table 6

Moderated Regression Analysis: Main Effects of Exposure to Ethnic-Political Violence (Wave 4) and Proposed Moderator Variables, and Their Interaction in Predicting Internalizing Symptoms (Wave 4) and Aggression (Wave 4)

Model	Outcome									
	Internalizing Symptoms (Wave 4)					Aggression (Wave 4)				
	B	*SE*	*p*	95% CI		B	*SE*	*p*	95% CI	
				LL	*UL*				*LL*	*UL*
Intercept	.221	.041	<.001	.141	.301	.390	.029	<.001	.334	.447
Covariates										
Region	.004	.021	.865	-.037	.044	-.027	.016	**.085**	-.058	.004
Age	.006	.003	**.042**	<.001	.011	-.005	.002	**.012**	-.010	-.001
Sex	-.046	.013	**.005**	-.072	-.020	.034	.010	**.001**	.014	.054
Avg. parent education	-.007	.005	.145	-.016	.002	-.001	.003	.866	-.007	.006
Exposure to EPV (Waves 1-3)	.008	.026	.760	-.043	.058	-.036	.019	**.060**	-.073	.002
PTS (Wave 1)	.031	.011	**.005**	.010	.053					
Aggression (Wave 1) [a]						.410	.055	**<.001**	.302	.519
Predictor										
Exposure to EPV (Wave 4) [a]	.485	.089	**<.001**	.310	.660	.229	.068	**.001**	.095	.363
Moderator										
ESEPV[ab]	-.217	.049	**<.001**	-.313	-.121	-.099	.037	**.009**	-.172	-.025
Exposure to EPV (Wave 4) [a] x ESEPV [ab]	-.792	.480	**.099**	-1.74	.149	.323	.887	.375	-.392	1.037
NBAA [a]	.256	.049	**<.001**	.160	.352	.124	.037	**.001**	.052	.198
Exposure to EPV (Wave 4) [a] x NBAA [a]	.329	.559	.556	-.769	1.426	-.460	.424	.278	-1.29	.372

Note. CI = Confidence Interval; *LL* = Lower Limit; *UL* = Upper Limit; EPV = Ethnic-Political Violence; PTS = Post-Traumatic Symptoms; NBAA = Normative Beliefs About Aggression; ESEPV = Emotional Sensitivity to Ethnic-Political Violence. Sex was scored: females = 0, males = 1. Significant ($p < .05$) and marginally significant ($p < .10$) effects are **bolded** in the table.

[a] Variable was transformed by Log10. [b] Variable was reverse-coded for Log10 transformation; lower scores indicate higher levels of emotional sensitivity to ethnic-political violence.

Table 7

Moderated Regression Analysis: Main Effects of Exposure to Ethnic-Political Violence (Waves 1-3) and Proposed Moderator Variables, and Their Interaction in Predicting Internalizing Symptoms (Wave 4) and Aggression (Wave 4)

Model	Outcome									
	Internalizing Symptoms (Wave 4)					Aggression (Wave 4)				
	B	*SE*	*p*	95% CI		B	*SE*	*p*	95% CI	
				LL	*UL*				*LL*	*UL*
Intercept	.237	.044	<.001	.151	.323	.301	.028	<.001	.267	.355
Covariates										
Region	.006	.021	.785	-.036	.058	-.006	.015	.666	-.036	.023
Age	.005	.003	.116	-.001	.010	-.005	.002	**.008**	-.009	-.001
Sex	-.038	.014	**.005**	-.065	-.012	.024	.009	**.010**	.006	.043
Avg. parent education	-.005	.005	.244	-.015	.004	.001	.003	.802	-.001	.007
PTS (Wave 1)	.029	.011	.011	.007	.051	-	-	-	-	-
Aggression (Wave 1) [a]	-	-	-	-	-	.747	.062	<.001	.625	.870
Predictor										
Exposure to EPV (Waves 1-3)	.051	.025	**.044**	.002	.101	-.020	.017	.248	-.053	.014
Moderator										
ESEPV [ab]	-.323	.046	**<.001**	-.413	-.232	-.136	.032	**<.001**	-.199	-.074
Exposure to EPV (Waves 1-3) x ESEPV [ab]	-.214	.123	**.082**	-.456	.028	-.120	.085	.158	-.285	.047
NBAA. [a]	.292	.051	**<.001**	.192	.392	.158	.035	**<.001**	.089	.227
Exposure to EPV (Waves 1-3) x NBAA [a]	-.001	.154	.958	-.310	.294	-.211	.106	**.047**	-.419	-.002

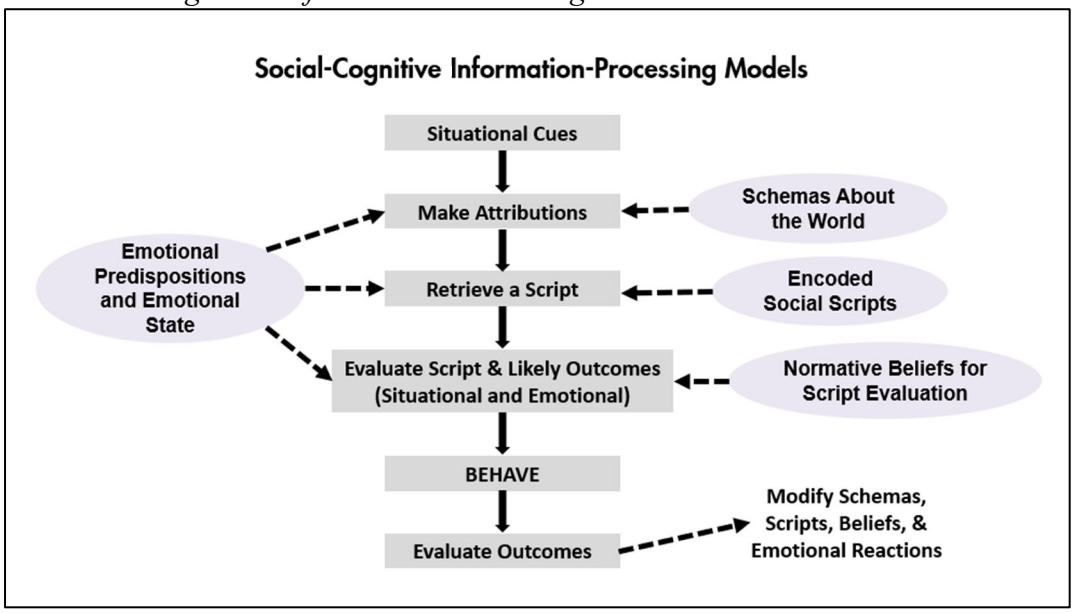
Note. CI = Confidence Interval; *LL* = Lower Limit; *UL* = Upper Limit; EPV = Ethnic-Political Violence; PTS = Post-Traumatic Symptoms; NBAA = Normative Beliefs About Aggression; ESEPV = Emotional Sensitivity to Ethnic-Political Violence. Sex was scored: females = 0, males = 1. Significant ($p < .05$) and marginally significant ($p < .10$) effects are **bolded** in the table.

[a] Variable was transformed by Log10. [b] Variable was reverse-coded for Log10 transformation; lower scores indicate higher levels of emotional sensitivity to ethnic-political violence.

APPENDIX B: FIGURES

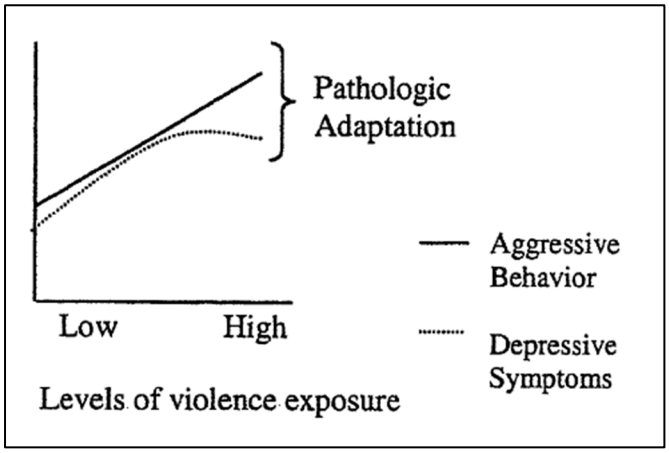
Figure 1

The Social-Cognitive Information-Processing Model



Note. Adapted from Huesmann (2018).

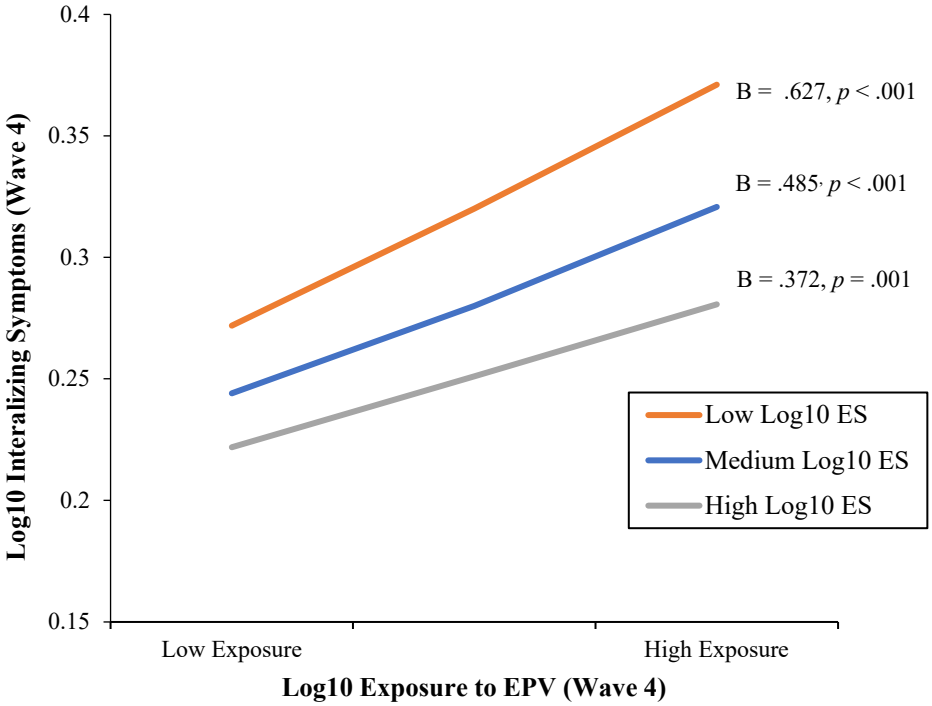
Figure 2
Pathologic Adaptation Model.



Note. Taken from Ng-Mak and colleagues (2002).

Figure 3

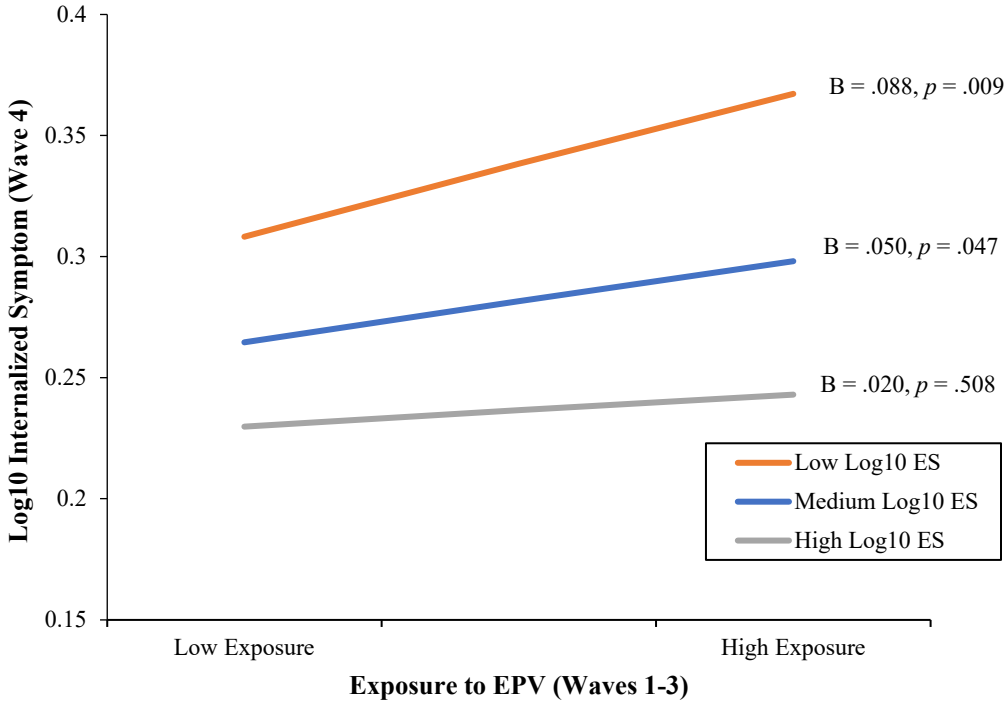
Moderating Effect of Emotional Sensitivity to EPV on the Relation Between Exposure to EPV and Internalizing Symptoms (Wave 4)



Note. EPV = Ethnic-Political Violence; ES = Emotional Sensitivity to Ethnic-Political Violence. Variable ER was reverse-coded for Log10 transformation; lower scores indicate greater emotional sensitivity to ethnic-political violence.

Figure 4

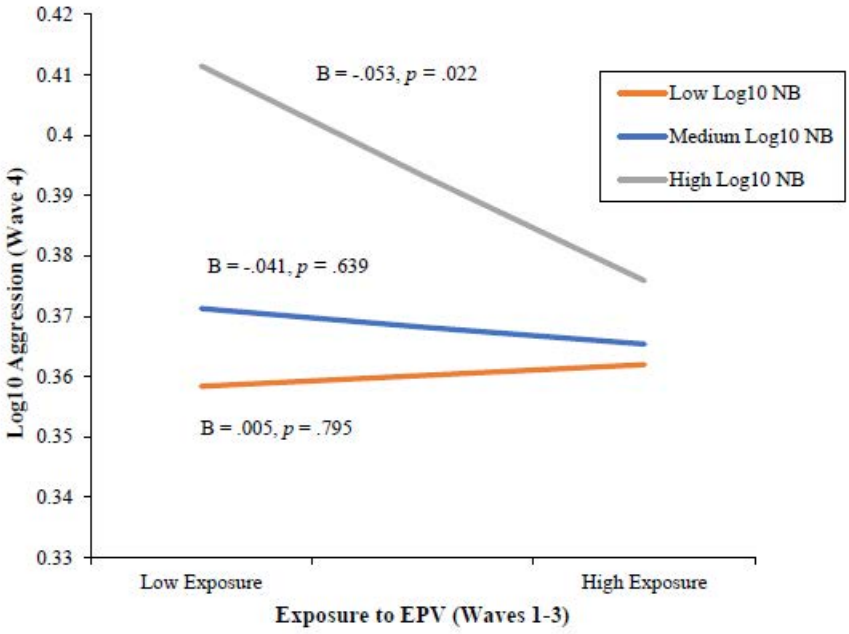
Moderating Effect of Emotional Sensitivity to EPV on the Relation Between Exposure to EPV (Waves 1-3) and Internalizing Symptoms (Wave 4)



Note. EPV = Ethnic-Political Violence; ES = Emotional Sensitivity to Ethnic-Political Violence. Variable ES was reverse-coded for Log 10 transformation, lower scores indicate greater emotional sensitivity to ethnic-political violence.

Figure 5

Moderating Effect of Normative Beliefs About Aggression on the Relation Between Exposure to EPV (Waves 1-3) and Aggression (Wave 4)



Note. EPV = Ethnic-Political Violence; NB = Normative Beliefs About Aggression.

APPENDIX C: PROBING INTERACTIONS

Table 8

Moderated Regression Analysis Used to Graph the Interaction of Exposure to Ethnic-Political Violence (Wave 4) and Emotional Sensitivity to Ethnic-Political Violence to Predicting Internalizing Symptoms

Model	Internalizing Symptoms (Wave 4)				
	B	*SE*	*p*	95% CI	
				LL	*UL*
Intercept	.200	.040	<.001	.121	.280
Covariates					
Region	.003	.021	.885	-.038	.044
Age	.006	.003	**.050**	<.001	.011
Sex	-.046	.013	**.001**	-.072	-.020
Avg. parent education	-.007	.005	.145	-.016	.002
PTS (Wave 1)	.031	.011	**.005**	.009	.053
Exposure to EPV (Waves 1-3)	.007	.026	.794	-.044	.057
NBAA [a]	.259	.048	**<.001**	.164	.354
Predictor					
Exposure to EPV (Wave 4) [a]	.490	.089	**<.001**	.315	.664
Moderator					
ESEPV [ab]	-.218	.049	**<.001**	-.314	-.122
Exposure to EPV (Wave 4) [a] x ESEPV [ab]	-.808	.479	**.092**	-1.75	.133

Note. CI = Confidence Interval; *LL* = Lower Limit; *UL* = Upper Limit; EPV = Ethnic-Political Violence; PTS = Post-Traumatic Symptoms; NBAA = Normative Beliefs About Aggression; ESEPV = Emotional Sensitivity to Ethnic-Political Violence. Sex was scored: females = 0, males = 1. Significant ($p < .05$) and marginally significant ($p < .10$) main effects are **bolded** in the table.
[a] Variable was transformed by Log10. [b] Variable was reverse-coded for log transformation; lower scores indicate higher levels of emotional sensitivity to ethnic-political violence.

Table 9

Moderated Regression Analysis Used to Graph the Interaction of Exposure to Ethnic-Political Violence (Waves 1-3) and Emotional Sensitivity to Ethnic-Political Violence to Predicting Internalizing Symptoms

Model	Internalizing Symptoms (Wave 4)				
	B	*SE*	*p*	95% CI	
				LL	*UL*
Intercept	.211	.044	<.001	.125	.296
Covariates					
Region	.006	.021	.782	-.036	.047
Age	.005	.003	.116	-.001	.010
Sex	-.038	.013	**.005**	-.065	-.012
Avg. parent education	-.005	.005	.241	-.015	.004
PTS (Wave 1)	.023	.011	**.011**	.007	.051
NBAA [a]	.292	.049	**<.001**	.195	.388
Predictor					
Exposure to EPV (Waves 1-3)	.051	.025	**.042**	.002	.101
Moderator					
ESEPV [ab]	-.322	.046	**<.001**	-.412	-.233
Exposure to EPV (Waves 1-3) x ESEPV [ab]	-.216	.122	**.077**	-.454	.023

Note CI = Confidence Interval; *LL* = Lower Limit; *UL* = Upper Limit; EPV = Ethnic-Political Violence; PTS = Post-Traumatic Symptoms; NBAA = Normative Beliefs About Aggression; ESEPV = Emotional Sensitivity to Ethnic-Political Violence. Sex was scored: females = 0, males = 1. Significant ($p < .05$) and marginally significant ($p < .10$) main effects are **bolded** in the table.
[a] Variable was transformed by Log10. [b] Variable was reverse-coded for Log10 transformation; lower scores indicate higher levels of emotional sensitivity to ethnic-political violence.

Table 10

Moderated Regression Analysis Used to Graph the Interaction of Exposure to Ethnic-Political Violence (Waves 1-3) and Normative Beliefs About Aggression to Predicting Aggression

Model	Aggression (Wave 4)				
	B	*SE*	*p*	95% CI	
				LL	*UL*
Intercept	.403	.033	<.001	.339	.467
Covariates					
Region	-.029	.016	**.069**	-.060	.002
Age	-.006	.002	**.010**	-.010	-.001
Sex	.039	.010	**<.001**	.019	.059
Avg. parent education	.001	.004	.871	-.006	.007
Aggression (Wave 1) [a]	.397	.055	**<.001**	.289	.505
ESEPV [ab]	-.149	.034	**<.001**	-.215	-.082
Predictor					
Exposure to EPV (Waves 1-3)	-.020	.018	.270	-.056	.016
Moderator					
NBAA [a]	.156	.038	**<.001**	.082	.230
Exposure to EPV (Waves 1-3) x NBAA [a]	-.276	.122	**.014**	-.497	-.055

Note. CI = Confidence Interval; *LL* = Lower Limit; *UL* = Upper Limit; EPV = Ethnic-Political Violence; PTS = Post-Traumatic Symptoms; NBAA = Normative Beliefs About Aggression; ESEPV = Emotional Sensitivity to Ethnic-Political Violence. Sex was scored: females = 0, males = 1. Significant ($p < .05$) and marginally significant ($p < .10$) main effects are **bolded** in the table.

[a] Variable was transformed by Log10.

APPENDIX D: MEASURES

A select number of measures have been included in this appendix; not all measures have been included.

Child Measures

Below is a list of some of the survey measures answered by the child or adolescent. All measures were collected at each time point of the study unless noted otherwise.

Demographics

1. What grade are you in? _____

2. What is your age? ____

3. Are you a boy or a girl? Boy Girl

4. Are you currently in school (this includes if you are home for break but intend on returning next semester)? **Wave 4 only.** 0 = no, 1 = yes.

5. What is the highest level of education you have attained? **Wave 4 only.** 1 = 6th grade or less, 2 = 7th grade, 3 = 8th grade, 4 = 9th grade, 5 = 10th grade, 6 = 11th grade, 7 = 12th grade, 8 = Some undergraduate college or university education, 9 = College or university undergraduate degree, 98 = NO ANSWER – CONTINUE TO NEXT QUESTION.

Exposure to Ethnic-Political Violence

Exposure to Ethnic-Political Violence Scale (Slone et al., 1998; Slone et al. 1999).

Participant Instructions. Have These Things Happened to You? We'd like to know whether any of the following things have happened to you. Please tell us whether the following things have happened to you "Never", "Once", "A few times", or "Many times" since you started the (**insert grade child started in Fall of 2006**) grade last fall.

1. *Israelis*: How often have you been stopped on the way to school/work because of a security event?

   Palestinians: How often do you go through a checkpoint on your way to school/work?
2. *Israelis*: How often have you not been able to leave home because of a security threat?

   Palestinians: How often have you spent a prolonged period of time in a security shelter or under curfew?
3. How often have you gone through a security check when entering a public place?
4. How often have you been in a situation where there is a suspicious object like a weapon or bomb?
5. *Israelis*: How often have you had a family member called up for duty for an extended period due to political or military involvement?
   a. *Israelis*: How often have you been called up for duty for an extended period due to political or military involvement?

   Palestinians: How often have you had a family member imprisoned or deported for an extended period due to political or military involvement?
   a. *Palestinians:* How often have you been imprisoned or deported for an extended period due to political or military involvement?

6. How often have you participated in a political demonstration?
7. How often have you seen a political demonstration?
8. How often have you known someone who was involved in a violent political demonstration?
9. *Israelis*: How many people in your family have died as a result of terrorist activity?

   Palestinians: How many people in your family have died as a result of political or military violence? 0 = none, 1= one, 2 = two, 3 = three or more.
10. *Israelis*: How many friends or acquaintances of yours have died as a result of terrorist activity?

    Palestinians: How many friends or acquaintances of yours have died as a result of political or military violence? 0 = none, 1= one, 2 = two, 3 = three or more.
11. *Israelis*: How often has a family member been injured as a result of terrorist activity?
    a. *Israelis*: How often have you been injured as a result of terrorist activity?

    Palestinians: How often has a family member been injured as a result of political or military violence?
    a. *Palestinians*: How often have you been injured as a result of political or military violence?
12. *Israelis*: How often has a friend or acquaintance of yours been injured as a result of terrorist activity?

    Palestinians: How often has a friend or acquaintance of yours been injured as a result of political or military violence?
13. How often has a family member had his or her property confiscated or destroyed?
    a. How often have you had your property confiscated or destroyed?

14. How often has a friend or acquaintance had his or her property confiscated or destroyed?
15. *Israelis*: How often have you seen right in front of you Israeli buildings, buses or other property destroyed by Palestinians?

    Palestinians: How often have you seen right in front of you Palestinian buildings, buses or other property destroyed by Israelis?
16. *Israelis*: How often have you seen video clips or photographs on TV, the Internet or in newspapers of Israeli buildings, buses or other property destroyed by Palestinians?

    Palestinians: How often have you seen video clips or photographs on TV, the Internet or in newspapers of Palestinian buildings, buses or other property destroyed by Israelis?
17. *Israelis*: How often have you seen right in front of you injured or dead Israelis on stretchers or the ground because of a Palestinian attack?

    Palestinians: How often have you seen right in front of you injured or martyred Palestinians on stretchers or the ground because of an Israeli attack?
18. *Israelis*: How often have you seen video clips or photographs on TV, the Internet or in newspapers of injured or dead Israelis on stretchers or the ground because of a Palestinian attack?

    Palestinians: How often have you seen video clips or photographs on TV, the Internet or in newspapers of injured or martyred Palestinians on stretchers or the ground because of an Israeli attack?
19. *Israelis*: How often have you seen right in front of you Israelis upset or crying because someone they knew or loved had been killed by Palestinians?

    Palestinians: How often have you seen right in front of you Palestinians upset or crying because someone they knew or loved had been killed by Israelis?

20. *Israelis*: How often have you seen video clips or photographs on TV, the Internet or in newspapers of Israelis upset or crying because someone they knew or loved had been killed by Palestinians?

    Palestinians: How often have you seen video clips or photographs on TV, the Internet or in newspapers of Palestinians upset or crying because someone they knew or loved had been killed by Israelis?

21. *Israelis*: How often have you seen right in front of you Israelis being held hostage, tortured or abused by Palestinians?

    Palestinians: How often have you seen right in front of you Palestinians being held hostage, tortured or abused by Israelis?

22. *Israelis*: How often have you seen video clips or photographs on TV, the Internet or in newspapers of Israelis being held hostage, tortured or abused by Palestinians?

    Palestinians: How often have you seen video clips or photographs on TV, the Internet or in newspapers of Palestinians being held hostage, tortured or abused by Israelis?

23. How often have you seen video clips or photographs on TV, the Internet or in newspapers of people or soldiers in other mid-eastern countries upset or crying because someone they loved had been killed in a bombing?

24. How often have you seen video clips or photographs on TV, the Internet or in newspapers of people or soldiers in other mid-eastern countries being killed in a bombing or shooting?

Emotional Sensitivity to Ethnic-Political Violence

Emotional sensitivity to EPV was measured in Wave 4 in conjunction with ten exposure events from the Exposure to Political Conflict and Violence Scale (Slone et al., 1998; Slone et al. 1999, Dubow et al., 2010). Emotional sensitivity to EPV questions are marked with an asterisk (*) after the associated exposure to EPV situation.

Participant Instructions. Have These Things Happened to You? We'd like to know whether any of the following things have happened to you. Please tell us whether the following things have happened to you "Never", "Once", "A few times", or "Many times" since you started the (**insert grade child started in Fall of 2006**) grade last fall.

15. *Israelis*: How often have you seen right in front of you Israeli buildings, buses or other property destroyed by Palestinians?

    Palestinians: How often have you seen right in front of you Palestinian buildings, buses or other property destroyed by Israelis?

    *15a. When you think about situations like this, how anxious or nervous do you feel? 0 = not at all, 1 = a little, 2 = a lot, 3 = extremely.

16. *Israelis*: How often have you seen video clips or photographs on TV, the Internet or in newspapers of Israeli buildings, buses or other property destroyed by Palestinians?

    Palestinians: How often have you seen video clips or photographs on TV, the Internet or in newspapers of Palestinian buildings, buses or other property destroyed by Israelis?

    *16a. When you think about situations like this, how anxious or nervous do you feel? 0 = not at all, 1 = a little, 2 = a lot, 3 = extremely.

17. *Israelis*: How often have you seen right in front of you injured or dead Israelis on stretchers or the ground because of a Palestinian attack?

    Palestinians: How often have you seen right in front of you injured or martyred Palestinians on stretchers or the ground because of an Israeli attack?

        *17a. When you think about situations like this, how anxious or nervous do you feel? 0 = not at all, 1 = a little, 2 = a lot, 3 = extremely.

18. *Israelis*: How often have you seen video clips or photographs on TV, the Internet or in newspapers of injured or dead Israelis on stretchers or the ground because of a Palestinian attack?

    Palestinians: How often have you seen video clips or photographs on TV, the Internet or in newspapers of injured or martyred Palestinians on stretchers or the ground because of an Israeli attack?

        *18a. When you think about situations like this, how anxious or nervous do you feel? 0 = not at all, 1 = a little, 2 = a lot, 3 = extremely.

19. *Israelis*: How often have you seen right in front of you Israelis upset or crying because someone they knew or loved had been killed by Palestinians?

    Palestinians: How often have you seen right in front of you Palestinians upset or crying because someone they knew or loved had been killed by Israelis?

        *19a. When you think about situations like this, how anxious or nervous do you feel? 0 = not at all, 1 = a little, 2 = a lot, 3 = extremely.

20. *Israelis*: How often have you seen video clips or photographs on TV, the Internet or in newspapers of Israelis upset or crying because someone they knew or loved had been killed by Palestinians?

Palestinians: How often have you seen video clips or photographs on TV, the Internet or in newspapers of Palestinians upset or crying because someone they knew or loved had been killed by Israelis?

*20a. When you think about situations like this, how anxious or nervous do you feel? 0 = not at all, 1 = a little, 2 = a lot, 3 = extremely.

21. *Israelis*: How often have you seen right in front of you Israelis being held hostage, tortured or abused by Palestinians?

    Palestinians: How often have you seen right in front of you Palestinians being held hostage, tortured or abused by Israelis?

    *21a. When you think about situations like this, how anxious or nervous do you feel? 0 = not at all, 1 = a little, 2 = a lot, 3 = extremely.

22. *Israelis*: How often have you seen video clips or photographs on TV, the Internet or in newspapers of Israelis being held hostage, tortured or abused by Palestinians?

    Palestinians: How often have you seen video clips or photographs on TV, the Internet or in newspapers of Palestinians being held hostage, tortured or abused by Israelis?

    *22a. When you think about situations like this, how anxious or nervous do you feel? 0 = not at all, 1 = a little, 2 = a lot, 3 = extremely.

23. How often have you seen video clips or photographs on TV, the Internet or in newspapers of people or soldiers in other mid-eastern countries upset or crying because someone they loved had been killed in a bombing?

    *23a. When you think about situations like this, how anxious or nervous do you feel? 0 = none, 1= one, 2 = two, 3 = three or more.

24. How often have you seen video clips or photographs on TV, the Internet or in newspapers of people or soldiers in other mid-eastern countries being killed in a bombing or shooting?

    *24a. When you think about situations like this, how anxious or nervous do you feel? 0 = not at all, 1 = a little, 2 = a lot, 3 = extremely.

Parent Measures

Below is a list of all measures responded to by the target child's parent. All measures were collected at each time point in the study.

Demographics

1. What is your place of residence?

2. What is your age?

3. Gender (DO NOT ASK; WRITE IN): 1 = male, 2 = female.

4. What is your relationship to the child? 1 = mother, 2 = father, 3 = other (SPECIFY)

5. Are you married? 1 = yes, 2 = no.

6. What is your highest level of education? 1 = some high school, 2 = high school graduate, 3 = some college or tech school, 4 = bachelors or RN degree, 5 = some graduate school, 6 = master's degree, 7 = doctorate or law degree.

7. (If married): What is your spouse's level of education? 1 = some high school, 2 = high school graduate, 3 = some college or tech school, 4 = bachelors or RN degree, 5 = some graduate school, 6 = master's degree, 7 = doctorate or law degree.

8. The average Palestinian household income is (GIVE AVERAGE HOUSEHOLD INCOME LEVEL). Is your household income: 1 = below average, 2 = average, 3 = above average, 4 = way above average.

APPENDIX E: INSTITUTIONAL REVIEW BOARD APPROVAL LETTER

BGSU
BOWLING GREEN STATE UNIVERSITY
Office of Research Compliance

DATE:	December 5, 2019
TO:	Catherine Zoleta, BS, BA
FROM:	Bowling Green State University Institutional Review Board
PROJECT TITLE:	[1521135-1] Youth Exposure to Ethnic-Political Violence: An Examination of Aggression, Youth Adjustment, Emotional Sensitization, and Cognitive Desensitization
SUBMISSION TYPE:	New Project
ACTION:	DETERMINATION OF EXEMPT STATUS
DECISION DATE:	December 4, 2019
REVIEW CATEGORY:	Exemption category #4

Thank you for your submission of New Project materials for this project. The Bowling Green State University Institutional Review Board has determined this project is exempt from IRB review according to federal regulations AND that the proposed research has met the principles outlined in the Belmont Report. You may now begin the research activities.

Note that changes cannot be made to exempt research because of the possibility that proposed changes may change the research in such a way that it no longer meets the criteria for exemption. If you want to make changes to this project, contact the Office of Research Compliance for guidance.

We will retain a copy of this correspondence within our records.

If you have any questions, please contact the Office of Research Compliance at 419-372-7716 or orc@bgsu.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Bowling Green State University Institutional Review Board's records.