

**The Effects of Exposure to Interparental Coercive Control on Peer Relationships During
High School**

by

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Abstract

Domestic violence (DV) is conceptualized as a combination of both physical violence and coercive control in the adult literature, yet the youth exposure literature mostly conceptualizes and measures DV without examining the role of coercive control. More recently, exposure to coercive control has explained variations in youth adjustment outcomes when controlling for physical violence, providing support for its inclusion into the youth exposure literature. Building from this literature, the present study examined the role of DV exposure, including physical violence and coercive control, to examine how DV exposure is associated with peer relationships. Though previous literature has suggested that DV exposure is associated with poorer peer relationships, these findings are not consistent across studies. Thus, the goals of the present dissertation are to examine (1) how DV exposure is associated with peer relationship experiences (e.g., bullying victimization and perpetration, friendship quality) using a comprehensive measure of DV exposure that includes frequency of physical violence exposure and coercive control exposure, and (2) how high school peer relationship experiences moderate the association between exposure to coercive control and internalizing problems (e.g., social anxiety, depression, and post-traumatic stress symptoms) during young adulthood. Data for the present dissertation comes from phase two of the Young Adult Live and Learn (Y'ALL) Project. Young adults ($N = 147$; 72.1% female; 74.1% European American) between the ages of 18 and 25 who were exposed ($n = 99$) or not ($n = 48$) to father-to-mother DV. Participants reported on their DV exposure experiences, peer relationship experiences, and internalizing problems

through an online survey. Results indicate that exposure to coercive control, controlling for physical violence exposure, is associated with more bullying victimization and friendship quality. Neither exposure to physical violence nor exposure to coercive control was associated with bullying perpetration. Contrary to hypotheses, bullying victimization and perpetration did not moderate the association between exposure to coercive control and internalizing problems; however, friendship quality was protective against social anxiety in the context of exposure to coercive control. Overall, findings from the present dissertation add to the small, but growing, body of literature that demonstrates how exposure to coercive control should be measured as a salient dimension of DV when understanding how exposure to DV is associated with a variety of outcomes during adolescence and young adulthood.

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“Do what I do. Hold on and pretend it’s a plan!” – *11th Doctor*

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List of Abbreviations

DV	Domestic violence
PTSD	Post-traumatic stress disorder
H.S.	High school

Chapter 1: Introduction

Exposure to interparental domestic violence¹ (DV) is a serious public health issue, with an estimated 17.3% of children and adolescents (hereafter referred to as youth) exposed to DV in their lifetime (Finkelhor, Turner, Shattuck, & Hamby, 2013). Exposure to DV is associated with a wide variety of maladaptive outcomes over time including internalizing problems (e.g. depression; see reviews by Evans, Davies & DiLillo, 2008; Haselschwerdt, 2014; Kitzman, Gaylord, Holt, & Kenny, 2003). Yet, a substantial percentage of DV-exposed youth do not show signs of maladaptation, leading researchers to examine what additional factors may contribute to this variation in adjustment. The present dissertation will address one key explanation, methodological decisions, and one understudied factor, peer relationships, that may help elucidate the association between DV exposure and adjustment during adolescence and into young adulthood.

Methodological decisions, particularly how DV exposure is operationalized and measured, may explain why such variation in outcomes among DV-exposed youth exists. More specifically, researchers have pointed to lack of measurement complexity as a continued issue in the study of DV exposure (e.g., dichotomizing DV exposure, solely focusing on exposure to discrete acts of physical violence; Finkelhor, Ormrod, & Turner, 2005; Hamby, Finkelhor, Turner, & Ormond, 2010; Haselschwerdt, 2014; Haselschwerdt, Savasuk-Luxton, & Hlavaty, 2017; Holden, 2003; Jouriles, McDonald, Smith Slep, Heyman, & Garrido, 2008). Additionally, emerging research in the youth exposure literature (e.g., Haselschwerdt, Hlavaty, Carlson, Schneider, Maddox, & Skipper, 2016; Jouriles & McDonald, 2015) as well as a substantial body

¹ Though men can be victims of DV, the present dissertation focuses on the experiences of young adults exposed to father-mother perpetrated DV as men are more likely to perpetrate physical violence in the context of coercive control (Johnson, 2008).

of research from the adult DV literature (e.g., Hardesty, Crossman, Haselschwerdt, Raffaelli, Ogolsky, & Johnson, 2015; Johnson & Leone, 2005; Stark, 2007), suggests that variations in adjustment may be better explained by including assessments of degree of exposure to coercive control (i.e., non-physical abuse tactics aimed at controlling one's partner over time) instead of or in addition to physical violence exposure. Yet, to our knowledge, only one study has included coercive control in its operationalization of DV exposure when examining youth adjustment (Jouriles & McDonald, 2015). To address these limitations in the current literature, the present dissertation will operationalize and measure DV exposure as frequency of physical violence exposure and exposure to coercive control.

Beyond methodological decisions that may help explain associations between DV exposure and adjustment, family violence scholars and developmentalists alike have investigated additional factors that may exacerbate risk or buffer against maladaptive adjustment, helping to clarify why some DV-exposed youth show signs of resilience over time while others struggle. One group of potentially moderating or mediating factors that have been examined at length is interpersonal relationships. However, these studies have largely focused on familial and romantic relationships; peer relationships have been understudied in comparison. Peer relationships are a critical context for development during adolescence as they are strongly associated with concurrent and long-term adjustment (Rubin, Bukowski, & Parker, 1998), and therefore, should be examined more carefully. When peer relationships are examined with this population, the attention is largely on peer aggression and bullying (Baldry, 2003; Baldry, 2007; Bauer, Herrenkohn, Lozano, Rivara, Hill, & Hawkins, 2006; Espelage, Low, & De La Rue, 2012; Espelage, Low, Rao, Hong, & Little, 2014; Holmes, 2003), with an emphasis on examining whether DV exposure places one at a greater risk for these negative peer experiences. Yet, the

evidence for the increased risk of bullying and peer aggression after DV exposure is inconsistent, and the inconsistencies may be due to methodological differences in how DV exposure is measured and analyzed across the studies. Better understanding the association between DV exposure, peer aggression, and bullying is important as polyvictimization, or experiencing victimization across multiple relationships is associated with greater maladaptive adjustment beyond sole DV exposure (Finkelhor, Omrod, Turner, & Hamby, 2005).

In comparison to what is known about DV exposure and negative peer experiences, less is known about these youth's positive peer experiences (e.g., friendship quality or peer support), as well as the protective role of positive peer experiences. This smaller body of literature, however, suggests that DV-exposed adolescents do indeed report positive peer experiences (e.g., support from friends; Camacho, Ehrensaft, & Cohen, 2012; close friendships, Katz, Hessler, & Annet, 2007). Moreover, DV-exposed adolescents who report positive peer experiences report better adjustment compared to adolescents with less positive peer experiences (Criss, Pettit, Bates, Dodge, & Lapp, 2002; Tajima, Herrenkohl, Moylan, & Derr, 2011). Although these studies provide evidence of the potentially protective role of peers in the context of DV exposure, researchers have only measured exposure to discrete acts of physical violence without examining the role of coercive control exposure. Additionally, researchers have yet to examine the mechanisms through which these positive peer relationships are protective (e.g., disclosing violence to friends to seek social support). The present dissertation responds to calls in the family violence literature to increase sophistication when assessing DV exposure by including coercive control as a key variable and integrates what is known about peer relationships from the developmental literature into the exposure literature to better understand the adolescent peer

relationship experiences of DV-exposed young adults and how these relationships impact adjustment during young adulthood.

Chapter 2: Literature Review

Domestic Violence Exposure and Internalizing Problems

Domestic violence exposure is associated with a variety of internalizing problems, including anxiety, depression, and post-traumatic stress disorder (PTSD) symptoms (Evans et al., 2008; Haselschwerdt, 2014; Kitzman et al., 2003). Like with high degrees of marital conflict, research suggests that DV exposure may be associated with internalizing problems in childhood and adolescence as these conflicts undermine youth's emotional security (i.e., emotion regulation ability and emotional well-being; Davies & Cummings, 1994). This process was explained by Davies and Cumming's (1994) emotional security hypothesis, which built upon attachment theory to explain how DV exposure and marital conflict was associated with maladaptive adjustment. Exposure to DV undermines emotional security as (1) youth perceive the conflict and violence as a threat to security and safety of the family system and are unable to develop a sense of emotional security, and (2) exposed youth have chronically high levels of arousal and dysregulated emotions due to the high levels of conflict occurring in their homes that hinders their ability to develop emotion regulation (Davies & Cummings, 1994). As DV-exposed youth are at greater risk of not developing emotional security, they are more likely to develop less effective coping mechanisms, potentially leading to behavioral and internalizing problems (Davies & Cummings, 1994).

Compared to non-exposed youth, DV-exposed youth are more likely to meet clinical cut-off criteria for anxiety (Spilsbury et al., 2007) and are approximately two times more likely to be diagnosed with a major depressive episode and/or PTSD (Zinzow, Ruggiero, Resnick, Hanson, Smith, Saunders, & Kilpatrick, 2009). Nevertheless, there is a substantial population of youth exposed to DV who do not show significant internalizing problems (Haselschwerdt, 2014;

Graham-Bermann, Gruber, Howell, & Griz, 2009). Graham-Bermann and colleagues (2009) found that only 25% of DV exposed youth show severe internalizing problems while another 20% show few internalizing problems. Additionally, though 40% of DV-exposed youth show some PTSD symptoms, the other 60% of exposed youth show no symptoms (Chemtob & Carlson, 2004). The question, then, is why is there such variation in internalizing problems among DV-exposed youth? Though there are likely multiple, overlapping answers to this question, including the reality that many youth show signs of resilience despite exposure; researchers have also suggested that the current literature does not fully account for variations within DV exposure which may explain, at least in part, these variations in outcomes.

Despite recommendations to measure and analyze the complexity within the larger umbrella of “DV exposure” (e.g., physical violence frequency, types of exposure, context of violence; Holden, 2003), the literature to date has by and large continued to focus solely on exposure to discrete acts of physical violence (Haselschwerdt, 2014; Haselschwerdt, Savasuk-Luxton, & Hlavaty, 2017). This operationalization strategy is inconsistent with the adult DV literature that has shifted from only measuring physical violence towards also measuring the context in which the violence occurs, or the degree of coercive control within a relationship (Hardesty et al., 2015; Johnson & Leone, 2005; Stark, 2007). Coercive control encompasses a variety of non-physical abuse tactics aimed at controlling and maintaining dominance over one’s partner and restricting their liberties (Hardesty et al., 2015; Stark, 2007). Examples of coercive controlling behaviors include monitoring spending or limiting access to finances and restricting the partner’s communication with others (Tolman, 1989).

Researchers have noted that DV in the context of high levels of coercive control is fundamentally different than DV in the context of low levels or no coercive control (Hardesty et

al., 2015; Johnson, 2008; Johnson & Leone, 2005; Stark, 2007). Though both men and women perpetrate physical violence against their partners, men are more likely to utilize coercive controlling behaviors in the context of physical abuse (Johnson, 2008; Stark, 2007). The use of coercive controlling behaviors creates a pervasively hostile home environment where both victims (Hardesty et al., 2015) and children (Øverlien, 2013) experience more fear of the abuser than those who are not exposed to coercive control. Youth exposed to DV in the context of high levels of coercive control describe how their family life was centered on their father's use of violence and abuse, such that their home lives were dominated by preventing, intervening in, and coping with the aftermath of the violence and abuse (Haselschwerdt et al., 2016). Direct victimization and exposure to violence rooted in coercive control is associated with more frequent and severe physical violence and injury and more maladaptive adjustment among adult victims (e.g., more PTSD symptoms; Hardesty et al., 2015; Johnson & Leone, 2005) and exposed youth (Haselschwerdt et al., 2016) compared to those who are exposed to physical violence not rooted in coercive control. As adult DV victimization and youth DV exposure experiences vary depending on the context of either low or high levels of coercive control, researchers have theorized (Haselschwerdt, 2014) and more recently empirically documented (Jouriles & McDonald, 2015) that exposure to coercive control may also explain the variations in adjustment outcomes associated with DV exposure.

Jouriles and McDonald (2015) conducted the first study to directly examine the impact of exposure to coercive control on youth's internalizing problems while also controlling for physical violence exposure. The authors found that when controlling for frequency of physical violence exposure, exposure to more coercive control was associated with more internalizing problems (measured by the internalizing subscale of the Child Behavior Checklist; Achenbach,

1991). Though, to our knowledge, this is the only study to directly examine the impact of exposure to coercive control on any adjustment outcome, Jouriles and McDonald (2015) provides evidence that exposure to coercive control explains a significant portion of variation in outcomes associated with DV exposure that is consistent with the adult DV literature. Therefore, by including exposure to coercive control in the operationalization of DV exposure, researchers may better understand variations in associated outcomes, especially when there are inconsistencies in studied outcomes. The present dissertation responds to these recommendations by utilizing an operationalization of DV exposure that includes frequency of physical violence exposure and exposure to coercive control.

Peer Relationships in the Context of Domestic Violence Exposure

Peer relationships of DV exposed youth have been examined in two ways. First, as an outcome of DV-exposure (Baldry, 2003; Baldry, 2007; Bauer et al., 2006; Camacho, Ehrensaft, & Cohen, 2012; Espelage, Low, & De La Rue, 2012; Espelage, Low, Rao, Hong, & Little, 2014; Graham-Bermann, Gruber, Howell, & Girz, 2009; Holmes, 2003; Knous-Westfall, Ehrensaft, MacDonell, & Cohen, 2012; McCloskey & Stuewig, 2001). In this context, researchers often focus on comparing DV-exposed youths' peer relationships to non-DV-exposed youth. Second, peer relationships have been examined as a moderator of the association between DV exposure and internalizing problems (Camacho et al., 2012; Finkelhor et al., 2005; Schneider, Loveland Cook, Salas, Scherrer, & Cleveland, 2016; Turner, Shattuck, Finkelhor, & Hamby, 2017). Consistent with previous literature, the present dissertation will examine peer relationships as both an outcome of DV exposure and as a moderator of the association between DV exposure and internalizing problems.

Peer Relationships as an Outcome of Domestic Violence Exposure

When peer relationships within the context of DV exposure are examined, the focus is largely on the association between DV exposure and peer aggression or bullying (e.g., Baldry, 2003; Baldry, 2007; Bauer et al., 2006; Espelage et al., 2012; Espelage et al., 2014; Holmes, 2003). Findings regarding the strength of the association between peer aggression, bullying, and DV exposure vary considerably across studies. In Baldry's (2003) study of Italian youth (ages 8-15), those who perpetrated bullying were approximately two times more likely to have been exposed to DV compared to those who were not exposed (Baldry, 2003). Another study of youth (ages 10-15) from the United States found that adolescents who experienced bullying victimization were more likely to report DV exposure compared to adolescents who reported none or minimal bullying victimization (Espelage et al., 2012). Yet, there are other studies that suggest the association between DV-exposure and bullying is not as strong (Bauer et al., 2006; Knous-Westfall et al., 2012). Bauer and colleagues (2006) found that once other factors (e.g., parental drug and alcohol use, family socioeconomic status) are taken into consideration, the direct association between DV exposure and peer aggression and/or bullying is no longer significant, suggesting that measuring exposure to physical violence only does not explain the association between DV exposure and peer experiences.

Methodological differences may provide some insight into the variations in these findings. The reviewed studies differ significantly in their operationalization and measurement of both DV exposure and bullying. For example, although many of the studies (e.g., Baldry, 2003; Baldry, 2007; Bauer et al., 2006; Holmes, 2003; Knous-Westfall et al., 2012) use the Conflict Tactics Scale (Straus, 1979) to measure exposure to physical violence, only two studies, both by Baldry (2003, 2007), utilize the measure identically. Within the reviewed studies, researchers

included differing items (e.g., one versus three items from the physical violence subscale; Bauer et al., 2006) and subscales (e.g., physical subscale only; Holmes, 2003; both psychological and physical subscales; Baldry, 2003, 2007). Nearly all reviewed studies used youth report of DV exposure, whereas Holmes (2003) and Knous-Westfall and colleagues (2012) used mother reports of DV victimization as a proxy for youth DV exposure, which is a commonly used approach in the family violence literature albeit different than youth report. No two studies utilized the same measure to assess peer aggression or bullying (Baldry, 2003; Baldry, 2007; Bauer et al., 2006; Espelage et al., 2012; Espelage et al., 2014; Holmes, 2003; Knous-Westfall et al., 2012). These methodological inconsistencies are not unique to the DV exposure and peer aggression literature, as they have been documented when examining associations between DV exposure and later involvement in young adult and adult intimate partner violence (Haselschwerdt et al., 2017), as well as within the child abuse and maltreatment literature (Thornberry, Knight, & Lovegrove, 2012). It should also be noted that other methodological decisions (e.g., ages of participants; demographic differences) may explain at least some of these differences in findings. Nevertheless, the inconsistencies make it challenging to truly compare across studies.

Additionally, unlike the present dissertation in which the purpose is to holistically understand the peer relationship experiences of DV-exposed adolescents, most of the previously detailed studies were aimed at understanding the antecedents of bullying or peer aggression (Baldry, 2003; Baldry, 2007; Espelage et al., 2012; Espelage et al., 2014). Though these are related aims, most DV-exposed youth will not report experiencing or perpetrating peer aggression or bullying. For example, in Espelage and colleagues' (2012) study, 12% of the youth who reported none to minimal bullying were exposed to physical violence. Similarly, in Bauer's

(2002) study, 46% of the adolescents who did not perpetrate bullying were exposed to DV.

Taken together, these findings suggest that there may be an increased risk for experiencing peer aggression and bullying due to DV exposure, but experiences of peer aggression and bullying are not universal among these individuals, highlighting the importance of examining DV-exposed adolescent and young adults' peer relationship more broadly.

A minority of studies within the current literature examine a wider range of peer relationships and overall these studies indicate that the peer relationships of DV-exposed adolescents are complex and varied, both within and across DV-exposed adolescents (Camacho et al., 2012; Graham-Bermann et al., 2009; Katz et al., 2007; McCloskey & Stuewig, 2001). There is some evidence to suggest that DV-exposed adolescents may report greater levels of general peer problems, but their close friendships do not differ significantly from non-DV exposed adolescents. McCloskey and Stuewig (2011), for example, found that DV-exposed youth (ages 6-12) report a similar number of friends compared to non-exposed adolescents, yet they do report having more peer problems and feeling lonelier. Similarly, Katz and colleagues (2007) found that DV exposure was not associated with friendship closeness or social problems, but that DV-exposed youth (ages 9-13) reported a greater number of negative peer interactions than non-exposed youth.

Peer relationship experiences also appear to vary within samples of DV-exposed youth. Graham-Bermann and colleagues (2009) identified four groups of DV-exposed youth (ages 6-12) based on their adjustment and social competence. Though almost half (45%) of the participants were identified as "struggling" with poorer social competence, almost a quarter of participants (20%) were identified as "resilient" and had strong social competence (Graham-Bermann et al., 2009). Camacho and colleagues (2012) found that DV-exposed adolescent' peer relationships

varied by gender. Exposed male, but not female adolescents, reported greater peer support than non-DV exposed male adolescents (Camacho et al., 2012). DV exposure was associated with greater relational victimization for females only (Camacho et al., 2012). These findings suggest that within the population of DV-exposed youth, there may be a range of peer experiences from youth who report very negative peer experiences to those who report very positive peer experiences and the variations may further differ by gender. However, it is not clear why such variation in peer relationship experiences exist among DV-exposed youth.

Gaps in understanding peer relationships as an outcome. To understand the complexity in DV-exposed adolescents' peer relationships, there are two important gaps in the current literature that warrant further study. First, with a few exceptions, the current literature examining DV-exposed youths' peer relationships is largely comprised of studies that focus on exposure to discrete acts of physical violence without considering the frequency of the physical violence nor the context in which the violence occurs (i.e., coercive control). The most common practice among the studies reviewed here is to dichotomize DV exposure experiences and then compare individuals who are exposed to at least one act of parent-to-parent physical violence to those who are never exposed (e.g., Baldry, 2003; Bauer et al., 2006; Espelage et al., 2012). Though often used when there is little variance, dichotomizing variables such as DV exposure has the potential to reduce the complexity inherent within the variable that would benefit research but also prevention and intervention efforts (MacCallum, Zhang, Preacher, & Rucker, 2002). When researchers have taken into consideration factors such as severity (Knous-Westfall et al., 2012) and the injuriousness of the violence (Camacho et al., 2012), they find variations such that adolescents exposed to more severe and injurious physical violence report poorer peer relationships (Camacho et al., 2012; Knous-Westfall et al., 2012). Therefore, the present

dissertation will address this gap in the current literature by including the frequency of physical violence exposure.

Furthermore, to our knowledge, no study examining the peer relationships of youth exposed to DV has included exposure to coercive control in its measurement of DV. The inclusion of coercive control in measuring DV exposure is important for two reasons. First, exposure to coercive control may be particularly important to consider when examining peer relationship outcomes as previous literature on martially-abusive fathers suggest that their fathering may hinder youth's peer interactions. Fathers who perpetrate physical violence in the context of high levels of coercive control frequently use harsh and developmentally inappropriate parenting (Bancroft, 2002; Edleson & Williams, 2007). This includes restricting their ability to spend time with friends, controlling their peer interactions, and listening in on their conversations with friends (Haselschwerdt, Maddox, & Hlavaty, under review; Øverlien, 2013). Second, previous studies have suggested that the inclusion of coercive control to predict outcomes explains variations in internalizing problems (Haselschwerdt, 2014; Jouriles & McDonald, 2015) and other interpersonal relationships (Haselschwerdt & Carlson, under review; Haselschwerdt, Maddox, & Hlavaty, under review) among youth exposed to DV. Therefore, exposure to coercive control may also explain variations in peer relationship experiences among DV-exposed youth. Thus, the present dissertation will also include exposure to coercive control in its operationalization of DV exposure.

Second, the current literature on DV-exposed youth's peer relationships largely focuses on middle school aged youth (Bauer et al., 2006; Espelage et al., 2012; Espelage et al., 2014; Katz et al., 2007; Knous-Westfall et al., 2012; McCloskey & Stuewig et al., 2001). This is likely due to the emphasis within the current literature on understanding the association between DV

exposure and bullying, as bullying experiences peak in frequency during middle school (Nansel, Overpeck, Pilla, Ruan, Simons-Morton, & Scheidt, 2001). However, the predominate focus on middle adolescence limits our understanding of the peer experiences of adolescents in high school and beyond. The few studies that include older adolescents tend to group them in with younger adolescence (Comacho et al., 2012) despite the important developmental changes in peer relationships across this developmental stage (Hafen, Laursen, & DeLay, 2012). Peer relationships undergo important developmental changes during middle and late adolescence and peer relationships during high school are associated with short and long-term adjustment (Rubin, Bukowski, & Parker, 1998), therefore, it is also important to consider the impact that DV exposure has on later peer relationships.

Considering these gaps in the current literature, the first goal of the present dissertation is to examine the association between DV exposure and high school peer relationships using a comprehensive operationalization of DV exposure that includes exposure to coercive control. The present dissertation will examine the association between DV exposure and three of the most studied adolescent peer relationship experiences in the current literature, bullying victimization, bullying perpetration, and friendship quality, to examine the role of exposure to coercive control on DV-exposed youth's peer relationships when controlling for exposure to physical violence.

Peer Relationships as a Moderator of Exposure and Internalizing Problems

Understanding the association between DV exposure and peer relationships is important, as these relationships have the potential to mitigate or exacerbate internalizing problems for youth exposed to DV. Negative peer experiences (i.e., bullying victimization and perpetration) may exacerbate internalizing problems for youth exposed to DV (Camacho et al., 2012), though

having positive peer experiences (i.e., a high-quality friendship) may protect against internalizing problems for DV exposed youth (Criss et al., 2002; Tajima et al., 2011).

Bullying victimization and perpetration as moderators. Understanding how bullying victimization is associated with internalizing problems among DV-exposed adolescents may be particularly important as polyvictimization, or experiencing multiple forms of victimization (e.g., experiencing DV exposure in addition to child abuse, and peer victimization), is associated with increased internalizing problems compared to youth with sole victimization experiences (Finkelhor et al., 2005; Schneider et al., 2016; Turner et al., 2017). Researchers believe that it is the accumulation of traumatic experiences that occur across multiple contexts that explains why polyvictimization is associated so strongly with increased maladaptive outcomes (Turner et al., 2017). Polyvictimized adolescents are at an increased risk of internalizing problems, including more anxiety, depressive symptoms, and trauma symptoms, both concurrently and in the long-term compared to adolescents who only experience one type of victimization (Schneider et al., 2016; Turner et al., 2017). DV-exposed youth who also report bullying victimization report more internalizing problems compared to youth exposed to DV and do not report bullying victimization (Camacho et al., 2012).

Taking a cumulative risk approach such that the quantity of risk factors matters more than the quality or complexity within each of the risk factors (Sameroff, Morrison Gutman, & Peck, 2003), the polyvictimization literature operationalizes DV exposure as exposure to discrete acts of physical violence and does not consider the context in which the violence occurs. Again, however, there is evidence that this operationalization strategy is not effective in examining the association between DV exposure and adjustment. Camacho and colleagues (2012) found that peer victimization moderates the association between injury associated with DV exposure (a

proxy for severity of DV exposure), not overall exposure, and internalizing problems.

Adolescents (ages 10-18) exposed to injurious DV who experienced bullying victimization reported significantly higher internalizing problems compared to those exposed to injurious DV and no bullying victimization (Camacho et al., 2012). Further, Camacho and colleagues (2012) found that peer victimization does not increase internalizing problems among adolescents exposed to non-injurious DV (Camacho et al., 2012). These findings suggest that bullying victimization does not moderate the association between DV exposure and internalizing behavior across all exposure experiences. Thus, using a more complex measurement of DV exposure may provide more clear support for the ways in which bullying moderates the association between DV exposure and internalizing problems. To our knowledge, no study to date has examined how bullying victimization moderates the association between exposure to coercive control and internalizing problems. Accordingly, the present dissertation will examine how bullying victimization moderates this association, controlling for physical violence exposure.

Interestingly, though bullying victimization has been examined as a moderator of the association between DV exposure and internalizing problems, no studies have examined how bullying perpetration moderates the association between DV exposure and internalizing problems. Like with bullying victimization, bullying perpetration is associated with more internalizing problems (Brunstein Klomek, Kleinman, Altschuler, Marrocco, Amakawa, & Gould, 2013; Pabian & Vandebosch, 2016), and DV exposed youth are more likely to perpetrate bullying (Baldry, 2003), thus it may be that bullying perpetration exacerbates internalizing problems in a similar fashion to bullying victimization. Therefore, the present dissertation will also examine how bullying perpetration moderates the association between DV exposure and internalizing problems during high school.

Friendship quality as a moderator. Compared to the current literature on polyvictimization, there are very few studies that examine how positive peer relationships may protect against internalizing problems in the context of DV exposure. However, the few studies that do examine how positive peer relationships, specifically friendships, are protective against internalizing problems demonstrate promising results. Tajima and colleagues (2011) are the only researchers, to our knowledge, to have examined how friendships may protect against internalizing problems for DV exposed adolescents (ages 16-19). For example, peer communication (i.e., feeling comfortable discussing important issues with friends) was protective against depression symptoms among DV exposed youth such that DV exposed youth who reported high levels of peer communication reported fewer depression symptoms compared to DV exposed youth who reported low peer communication (Tajima et al., 2011). When examining younger children, Criss and colleagues (2002) found that the association between exposure to DV before entering kindergarten and externalizing behavior in second grade was moderated by peer acceptance during kindergarten and first grade. Those who were found to be accepted by their peers reported fewer externalizing problems in the context of DV exposure compared to those who were not accepted by their peers (Criss et al., 2002).

Friendships have also been found to be protective in the face of other family risk factors (e.g., harsh parenting; Criss et al., 2002; Lansford et al., 2003; child abuse and maltreatment; Folger & Wright, 2013; Schwartz et al., 2000). Individuals who report high quality friendships report fewer internalizing problems (Folger & Wright, 2013) and other maladaptive adjustment outcomes (e.g., externalizing problems; Criss et al., 2002; Lansford et al., 2003; peer victimization and aggression; Schwartz et al., 2000) after experiencing family risk compared to those with lower quality friendships. Researchers have also found that lacking a high-quality

friendship puts adolescents at risk for more internalizing problems in the context of parental conflict. Lower quality friendships can exacerbate the likelihood for internalizing problems in the context of non-physical parental conflict (Larsen, Branje, van der Valk, & Meeus, 2007). Access to social support is widely believed to be the mechanisms through which friends serve as protective factors against internalizing problems and maladaptive adjustment (Folger & Wright, 2013; Schwartz et al., 2000). As adolescents who have higher quality friendships have access to more social support, they can use constructive coping strategies, such as support seeking, to manage stressful experiences compared to those with lower quality friendships (Graber, Turner, & Madill, 2016). The use of these constructive coping mechanisms, in turn, is associated with fewer internalizing problems.

Using peers to manage exposure experiences. Adolescents frequently engage with their peers to cope with a variety of stressful life events (Zimmer-Gembeck & Skinner, 2011), thus they may also turn to their peers to manage their DV exposure experiences. One specific way in which peer relationships might protect against maladaptive adjustment in the context of DV exposure is through the process of support seeking. Support seeking is a coping strategy in which an individual actively seeks assistance to cope with a problem from individuals in their social network (Zimmer-Gembeck & Skinner, 2011). Across adolescence, individuals increasingly seek support from their friends while they become less likely to seek support from adults (Zimmer-Gembeck & Skinner, 2011), though females do show more support seeking behaviors than males during adolescence (Hampel & Petermann, 2006). The use of support seeking coping strategies is associated with fewer internalizing symptoms (see reviews by Clark, 2006; Compass, Connor-Smith, Saltzman, Harding Thompson, & Wadsworth, 2001). Specifically, the present dissertation will examine disclosure of DV exposure to a friend and talking to a friend about the violence as

indicators of support seeking. Disclosure is one of the key distinctions that differentiates friendships from other peer relationships, as such, this dissertation focuses specifically on friendships (Buhrmester & Furman, 1987; Chow, Roelse, Buhrmester, & Underwood, 2012). Additionally, friends are often the first people whom adolescents and young adults turn to for support to cope with a variety of problems from normative concerns (e.g., problems with friends or school; Zimmer-Gembeck & Skinner, 2011) to more serious problems (e.g., DV exposure; Bottoms, Peter-Hagene, Epstein, Wiley, Reynolds, & Rudnicki, 2014; Howell, Cater, Miller-Graff, Graham-Bermann, 2015; dating violence; Black, Tolman, Callahan, Saunders, Weisz, 2008; Fry et al., 2013; Hedge, Sianko, & McDonell, 2016).

Although there is a substantial literature on adolescent support seeking to manage other stressors (e.g., problems in school or social problems; Zimmer-Gembeck & Skinner, 2011), little is known about the support seeking of DV-exposed adolescents and the possible impact of support seeking on their adjustment. As expected, a majority of DV exposed adolescents disclose their exposure experiences (71% ever disclosed, Bottoms et al., 2014; 56.6% disclosed during childhood; Howell et al., 2015) and those who disclose the violence to others disclose most frequently to their friends (70%, Bottoms et al., 2014; 53.2% Howell et al., 2015). Yet, how this disclosure or ongoing conversations regarding their DV exposure experiences are associated with their adjustment has yet to be examined. Additionally, disclosure or ongoing support seeking from friends may not be the only way in which adolescents and young adults engage with their peers to manage their DV exposure experiences. To our knowledge, there is no research that examines the use of other coping skills in the context of DV exposure, but it is likely that individuals may use friends to cope with their exposure experiences in ways other than support

seeking. For example, individuals may spend time with their friends to distract themselves from their problems at home (i.e., distraction, Zimmer-Gembeck & Skinner, 2011).

Though it is expected that, consistent with previous literature (see reviews by Clark, 2006; Compass et al., 2001) the use of these support seeking behaviors will be associated with fewer internalizing problems, it is possible that perceptions of friendship quality impact the protective influence of these behaviors. Support seeking behavior within a given relationship is linked to the quality of that relationship. Previous studies have shown that in better quality friendships, support seeking occurs more often (Chow & Glaman, 2013) and individuals perceive the support they receive to be more effective (Chow & Buhrmester, 2011). Therefore, it is possible that support seeking behaviors ability to influence internalizing problems varies by friendships quality; that is, those who report both a high quality friendship and support seeking behavior will report fewer internalizing problems compared to those who only report having a high quality friendship. Thus, the present dissertation will consider the impact of support seeking behaviors within the context of the quality of the friendship.

The Present Dissertation

Though coercive control has been identified as a salient dimension of DV within the adult DV literature (Hardesty et al., 2015; Johnson, 2008; Johnson & Leone, 2005), few studies have included exposure to coercive control when examining DV exposure (Haselschwerdt et al., 2016) or its effects on adjustment (Jouriles & McDonald, 2015). Furthermore, to date, no study has included exposure to coercive control when examining DV-exposed youth's high school peer relationships. The present dissertation will add to the small body of literature utilizing a more holistic operationalization of DV exposure that includes exposure to coercive control to understand (1) how DV exposure is associated with peer relationships during high school and (2)

how peer relationships may moderate the association between DV exposure and internalizing problems.

The first goal of the present dissertation is to examine the impact of DV exposure on the high school peer relationships experiences of young adults. Consistent with previous literature, it is expected that exposure to greater levels of physical violence will be associated with more bullying victimization and perpetration during high school (Baldry, 2007; Bauer, et al., 2006; Espelage, et al., 2012; Espelage, et al., 2014), but not with friendship quality (Katz et al., 2007). Controlling for physical violence exposure, it is expected that exposure to greater levels of coercive control is associated with greater levels of bullying victimization and perpetration, and poorer friendship quality. Previous literature suggests that (1) exposure to more coercive control is associated with poorer interpersonal relationships (Haselschwerdt & Carlson, under review; Haselschwerdt, Maddox, & Hlavaty, under review), and (2) exposure to more severe and frequent violence is associated with overall poorer peer relationships (Camacho et al., 2012; Knous-Westfall et al., 2012). Therefore, it is expected that exposure to more coercive control will be associated with more bullying victimization and perpetration and poorer quality friendships.

The second goal of the present dissertation to examine how peer relationships moderate the association between coercive control exposure and internalizing problems, operationalized in the present dissertation as social anxiety, depressive symptoms, and PTSD symptoms. In the present dissertation, social anxiety is being used in place of a more general measure of anxiety as it is more proximal to peer relationships. Peer relationships have been found to moderate the association between physical violence exposure and internalizing problems (Finkelhor et al., 2005; Schneider, et al., 2016; Tajima et al., 2011; Turner, Shattuck, et al., 2017), however, no

studies have examined how peer relationships moderate the association between coercive control exposure and internalizing problems, despite coercive control exposure having a significant impact on internalizing problems when controlling for physical violence exposure (Jouriles & McDonald, 2015). It is expected that peer relationships will moderate the association between coercive control exposure and internalizing problems in a similar pattern to previous studies examining how peer relationships moderate the association between physical violence exposure and internalizing problems. Youth exposed to high levels of coercive control who report bullying victimization or perpetration will report greater internalizing problems compared to youth exposed to high levels of coercive control without bullying experiences, when controlling for physical violence exposure. Youth exposed to high levels of coercive control who report high quality friendships will report less internalizing problems compared to youth exposed to high levels of coercive control who report low quality friendships, controlling for physical violence exposure. Similar patterns of findings are expected across all internalizing problem outcomes.

Additionally, the emphasis within the current literature on negative peer experiences has limited our understanding of how positive peer interactions, particularly friendships, may protect against internalizing problems in the context of DV-exposure. Therefore, the final goal of the present dissertation is to understand how using coping strategies that involve friends might be protective against internalizing problems after exposure to coercive control above and beyond friendship quality. Three specific coping strategies (i.e., disclosing violence and abuse to a close friend, avoiding home by spending time with friends, and talking to a friend about the violence and abuse) will be examined. It is expected that the use of these coping strategies will be additionally protective against internalizing problems in the context of exposure to coercive control. Such that young adults exposed to high level of coercive control will report lower levels

of internalizing problems when they have both a high-quality friendship and involve their friends in coping with their exposure experiences compared to young adults who are exposed to high levels of coercive control and have high quality friendships but do not involve their friends in their coping with the violence and abuse. Similar patterns of findings are expected across all three coping strategies and internalizing problem outcomes.

Chapter 3: Methods

Procedure

Data used in the present dissertation comes from the Young Adult Live and Learn (Y'ALL) Project, a three-phase mixed methods study conducted in the southeastern United States that sought to understand young adults' (ages 18-25) experiences of exposure to DV. Phase one of the Y'ALL project consisted of in depth qualitative interviews with 25 young adults who were exposed to DV (Haselschwerdt, et al., 2016). Phase two consisted of an online survey with 147 young adults exposed to DV. Phase three is comprised of in-depth qualitative interviews with a subset of phase two participants. Data collection for phases one and two are complete and phase three recruitment and data collection is ongoing. Funding for this project came from Auburn University Intramural Grants Program and the Alabama Agricultural Experiment Station Young Investigator Award. This study was approved by Auburn University's Institutional Review Board.

Data for the present dissertation comes from phase two of the Y'ALL Project. Data were collected using an online survey hosted through Qualtrics. The sample of DV-exposed young adults was recruited through flyers, class announcements, and social media posts calling for young adults to share their experiences of exposure to father to mother physical violence. To be eligible, potential participants needed to report exposure to father-perpetrated physical violence, have lived in or currently reside in Alabama, be between the ages of 18 to 25, and have parents who are either still married or had separated/divorced after they turned eight. This eligibility requirement was included based on phase one participants ability to vividly recall their first exposure experience at a young age (Haselschwerdt, et al., 2016). All participants who were a part of the first phase of the Y'ALL project and agreed to be contacted for future research studies

were also invited to take part in phase two. After recruitment of the DV-exposed sample was complete, a non-DV-exposed comparison sample was recruited through flyers and social media postings, that called for young adults to report on both good and bad family experiences. Young adults were eligible to complete the comparison survey if they have lived or currently reside in Alabama, were between the ages of 18 to 25, and had parents who are either still married or separated/divorced after they turned eight.

All participants answered questions regarding six major topic areas: (1) background and demographic information, (2) violence and abuse, (3) family dynamics, (4) peer relationships, (5) romantic relationships, and (6) current well-being. Participants responded to items in each of these sections based on their experiences before they turned 18 and their current experiences or their experiences since they turned 18. Participants recruited for the comparison sample were asked a screening question, “How often did your father use physical aggression or violence (e.g., pushing, shoving, grabbing) towards your mother?” If participants responded “never,” they were not asked any additional questions regarding physical violence, but they were asked about nonphysical abuse tactics. Comparison participants that responded that their fathers used physical violence at least once against their mothers were shown the same physical violence questions as the DV-exposed participants. Only three participants recruited to be a part of the comparison sample reported that their father used physical violence at least once against their mothers and are included as a part of the DV-exposed sample. All participants received a resource list and a \$15 Amazon gift card as remuneration for completing the survey.

Participants

Phase two of the Y’ALL Project was comprised of two samples: a DV-exposed sample ($n = 99$) and a comparison sample of non-DV-exposed young adults ($n = 48$; total $N = 147$). On

average, participants were approximately 21 years of age ($M = 20.86$; $SD = 1.92$). The majority of participants identified their gender as female (72.1%, 25.9% male, 1.4% transgender, .7% do not identify as male, female, or transgender), European American (74.1%, 10.2% African American, 6.1% Biracial, 5.4% Asian or Asian American, 1.4% American Indian, 1.4% Latinx, .7% Middle Eastern), and heterosexual (84.4%, 6.8% Bisexual, 3.4% Lesbian, 2% Pansexual, 2% Asexual, 1.4% Gay). Almost 75% of participants reported attending college for at least one year and their time in college was evenly distributed (14.6% less than 1 year, 11.2% one year, 25.8% two years, 23.6% three years, 16.9% four years, 7.9% five or more years). Most (68.7%) reported never receiving public assistance (e.g., free school lunch) while growing up, and recalled that their social class was largely middle class (44.2%), followed by working class (24.5%), upper-middle class (23.8%), impoverished (6.1%), and upper class (1.4%). Participants largely grew up in suburban areas (42.9%), followed by rural (24.5%), urban (21.8%), and college towns (10.2%).

According to participants, mothers were, on average, 50 years of age ($M = 49.44$; $SD = 6.64$) and were born in the United States (92.2%). One mother (.7%) was deceased at the time of the survey. Most mothers had at least some college education (79.5%) and were currently employed full time (66%). Participants largely reported on their biological or adoptive fathers (86.4%, 12.9% stepfather, .7% mother's partner not from marriage). Fathers were, on average, approximately 52 years of age ($M = 51.70$; $SD = 6.15$) and were born in the United State (91.8%). Three fathers (2%) were deceased at the time of the survey. Most fathers had at least some college education (68.7%) and were currently employed full time (80.3%). Over half (60.5%) of the sample reported that their mother and father were still married at the time of the survey; whereas 30.6% were divorced, 6.1% separated, 1.4% were in a committed relationship,

but not married, and 1.4% were widowed. Of the four parents who were reported to be deceased at the time of the survey, only two were still married at the time of their death; the remaining two deceased parents had been divorced prior to their deaths.

A *t*-test showed that there were some demographic differences between the two samples. The comparison sample ($M = 20.15$, $SD = 1.57$) was, on average, a year younger ($M = 21.21$, $SD = 1.99$; $t(145) = 3.26$, $p < .001$), less educated (comparison $M = 3.85$, $SD = 1.42$; DV-exposed $M = 4.49$, $SD = 1.42$; $t(145) = 2.58$, $p < .01$), had higher familial social class (comparison $M = 3.25$, $SD = .67$; DV-exposed $M = 2.73$, $SD = .92$; $t(123) = -3.90$, $p < .001$) and were less likely to receive public assistance (comparison $M = .83$, $SD = .38$; DV-exposed $M = .62$, $SD = .49$; $t(117) = -2.96$, $p < .01$) compared to the DV-exposed sample. Participants in the comparison sample were more likely to report that both their mothers (comparison $M = 5.73$, $SD = 1.82$; DV-exposed $M = 5.04$, $SD = 2.34$; $t(116) = -1.96$, $p < .05$) and fathers (comparison $M = 6.02$, $SD = 1.96$; DV-exposed $M = 4.47$, $SD = 2.35$; $t(109) = -4.19$, $p < .001$) had a higher level of education. Participants in the DV-exposed sample ($M = .38$, $SD = .49$) were more likely to report their parents were divorced (comparison $M = .15$, $SD = .35$; $t(122) = 3.35$, $p < .001$) and report maritally violent stepfathers (versus fathers) (comparison $M = .94$, $SD = .24$; DV-exposed $M = .82$, $SD = .38$; $t(133) = -2.10$, $p < .05$) than the comparison sample.

Measures

Father-Mother Perpetrated Domestic Violence.

Physical violence. Participants in the DV-exposed sample were asked to report on their father's use of physical violence towards their mother on eight items modified from the Revised Conflict Tactics Scale (Straus, Hamby, Boney-McCoy, & Sugarman, 1996). Participants indicated how often (1=Never, 2=1-2 times, 3=3-5 times, 4=6-9 times, 5=10+ times) their fathers

used the following items to their mothers: “Grab your mother trying to hurt her,” “Push or shove her,” “Throw something at her,” “Slap her,” “Push or force her against a wall or another object,” “Hit or punch her,” “Use a weapon (e.g. knife, gun) against her,” “Choke her.” Consistent with previous research (Hardesty et al., 2015), a frequency of physical violence exposure scores was created by averaging how often participants were exposed to the eight acts of physical violence; higher scores indicate more frequent exposure to physical violence ($\alpha = .90$).

Coercive control. Father’s use of coercive control was measured using a modified version of the Isolation Domination subscale of the Psychological Maltreatment of Women Inventory (Tolman, 1989). The items were modified to reflect exposure instead of victimization. Participants responded to seven items measuring the frequency with which their fathers used non-physical abuse tactics against their mother (1=*Never*, 2=*Sometimes*, 3=*Often*, 4=*Almost Always*, 5=*Always*). Items included “He monitored her time and made her account for her whereabouts,” “He used her money or made important financial decisions without talking to her about it,” “He was jealous or suspicious of her friends,” “He accused her of having an affair with another man,” “He interfered in her relationships with other family members,” “He tried to keep her from doing things to help herself,” and “He restricted her use of the phone, text messaging, email, and social media.” Consistent with previous research, summed frequency scores were created by summing all seven items together (Hardesty et al., 2015); higher scores indicate exposure to more frequent coercive control ($\alpha = .92$).

Peer relationships.

Bullying perpetration and victimization. Participants were asked to report on the frequency of their bullying perpetration and victimization while they were in high school on nine items modified from several previous measures (Morales & Crick, 1998; Parada, 2000; Savage,

2012; 1=*Never*, 2=*Rarely*, 3=*Sometimes*, 4=*Often*, 5=*Frequently*). Young adults were asked about physical (3 items; e.g., “Crashed into me on purpose as they walked by”), relational (3 items; “Threatened to share my private information to get me to comply with their wishes”), and electronic (3 items; “Sent me harassing messages directly to me online or on social media”) victimization before being asked to report on their own perpetration of the same items. Scores were computed by averaging items separately for victimization and perpetration; higher scores indicate greater frequency of bullying victimization or perpetration (victimization, $\alpha = .91$; perpetration, $\alpha = .93$).

Friendship quality. Young adults were asked if they had at least one close friend while they were in high school. If the participant responded affirmatively, they then reported on the quality of their relationship with their closest friend using the Intimate Disclosure and Emotional Support subscales of the Network of Relationships Inventory – Relationships Quality Version (Buhrmester, Compas, & Christensen, 1991). Each subscale consists of three items (six items total); participants reported the frequency with which they disclosed intimate details to their close friend (e.g., “Tell this person things that you didn’t want others to know”) and depended on them for emotional support (e.g., “When you are feeling down or upset, depend on this person to cheer things up”; 1=*Never*, 2=*Seldom*, 3=*Sometimes*, 4=*Often*, 5=*Always*). Scores were calculated by averaging all six items for a total friendship quality score; higher scores indicate better quality friendships characterized by higher levels of emotional support and intimate disclosure ($\alpha = .95$).

Coping strategies. Young adults exposed to DV were asked about their experiences disclosing and coping with the violence and abuse in their family. Participants reported on whether they ever disclosed the violence and abuse in their homes to a close friend (0=*No*, 1

never disclosed to this person, 1=Yes, I disclosed to this person), if they ever avoided home by spending time with friends or at a friend's house to cope with the violence and abuse (0=*No, I never used this coping strategy, 1=Yes, I used this coping strategy*), or if they ever talked to a friend about the violence to cope with the violence and abuse (0=*No, I never used this coping strategy, 1=Yes, I used this coping strategy*). All three variables will be used as dichotomous variables.

Adjustment measures.

Social anxiety. Participants reported on the frequency of their social anxiety since leaving high school using the Fear of Negative Evaluation subscale (La Greca & Lopez, 1998; 1=*Not at all, 2=Rarely, 3=Sometimes, 4=Often, 5=All the time*). The subscale consists of eight items, such as, "I worry what others think of me," and "I feel that peers talk about me behind my back." Scores were computed by averaging all eight items; higher scores indicate greater social anxiety ($\alpha = .94$).

Depression. Participants responded to two questions regarding their current depressive symptoms using two items from the Center for Epidemiologic Studies Depression Scale (Andresen, 1994). The questions were "During the last year, have you had 2 weeks or more in which you felt sad, blue, or depressed, or when you lost all interest or pleasure in things that you usually care about or enjoy" and "Have you felt depressed or sad much of the time in the past year." Responses to both questions were dichotomous (0=*No, 1=Yes*) indicating the presence or absence of symptoms. Responses from both items were summed to create total depression score ($\alpha = .66$).

Post-traumatic stress disorder symptoms. Symptoms of post-traumatic stress disorder (PTSD) within the past month were reported by participants using the Abbreviated PTSD

Checklist for Civilians (Lang & Stein, 2005). Frequency of symptoms was reported on six items (e.g., “Feeling distant or cut off from other people?”; 1=*Not at all*, 2=*A little bit*, 3=*Moderately*, 4=*Quite a bit*, 5=*Extremely*). Scores were created by summing all items; higher scores indicate more severe PTSD symptoms ($\alpha = .89$).

Chapter 4: Results

Before hypothesis testing, descriptive statistics and bivariate correlations were examined. On average, DV-exposed young adults were exposed physical violence on approximately one to two occasions per act (see Table 1). Thirty-eight participants were exposed to physical violence while they were in high school. However, there was a large amount of variation in DV exposure experiences, ranging from exposure to only one act of physical violence² ($n = 8$) to all eight physical violence acts ($n = 11$). Coercive control exposure scores ranged from the lowest possible score of 7 to 34, with the maximum being a 35. When comparing the two samples, DV-exposed young adults reported lower friendship quality and more bullying victimization and perpetration than the comparison sample. There were no sample group differences in reported social anxiety and PTSD symptoms, but the DV-exposed sample reported more depressive symptoms than the comparison sample.

When examining bivariate correlations for the full study sample (i.e., both DV-exposed and non-exposed young adults), exposure to more frequent violence was associated with exposure to more coercive control. Bullying victimization was significantly associated with bullying perpetration (see Table 2), such that experiencing more bullying victimization was associated with more bullying perpetration. Friendship quality was not associated with bullying victimization or perpetration. Exposure to more frequent violence was associated with more bullying victimization and perpetration, but not friendship quality. Exposure to greater levels of coercive control was associated with more bullying victimization, more bullying perpetration,

² Three participants in the DV-exposed group reported no exposure to any of the eight acts of physical violence included in the present dissertation. All three report exposure to violence and abuse in other measures. Sensitivity analyses indicate that their inclusion in the present dissertation does not affect the results.

and better quality friendships. Bullying victimization was associated with all three internalizing problems; such that more bullying victimization was associated with more social anxiety, depression, and PTSD symptoms. Bullying perpetration was not associated with any of the internalizing problem outcomes. Better friendship quality was associated with more social anxiety during young adulthood, but not depressive or PTSD symptoms. Exposure to more frequent violence was not associated with more social anxiety or PTSD symptoms, but was associated with more depressive symptoms. Exposure to coercive control was associated with all three internalizing problems such that exposure to more coercive control was associated with more social anxiety, depressive symptoms, and PTSD symptoms. All three internalizing problem outcomes were also associated with each other. Reporting more social anxiety was associated with more depressive and PTSD symptoms, and reporting more depressive symptoms was associated with more PTSD symptoms.

Domestic Violence Exposure and Peer Relationships

To address the first goal of the present dissertation, multiple regressions were used to examine the association between coercive control exposure and peer relationship experiences during high school, controlling for physical violence exposure. The full sample was included in all models; non-exposed young adults were given the lowest possible score on all measures of physical violence exposure. The models were built in three steps. Step one included exposure to frequency of physical violence. Coercive control exposure was included in the second step of the model. Control variables were added in the third step of the model. Control variables included social class, exposure to physical violence during high school, and gender. Social class was included as a control variable due to significant differences in social class between DV-exposed and non-exposed young adults. As more proximal DV exposure may be associated with poorer

peer relationships, whether or not young adults were exposed to physical violence during high school was included as the second control variable. Finally, as previous literature suggests that DV-exposed youth's peer relationship experiences vary by gender (Camacho et al., 2012), gender was included as the third control.

Frequency of physical violence was associated with bullying victimization (see Table 3), however, once exposure to coercive control was included in the model, the association was no longer significant. Exposure to greater levels of coercive control was associated with more bullying victimization when controlling for physical violence exposure. Inclusion of coercive control in the model accounted for a significant increase in the amount of variance in the outcome that was explained by the predictors. Those exposed to physical violence during high school reported less bullying victimization; social class and gender were not associated with bullying victimization. Neither frequency of physical violence nor exposure to coercive control were associated with bullying perpetration. Gender was the only control variable associated with bullying perpetration; females were less likely to report bullying victimization.

Exposure to more frequent physical violence was not associated with friendship quality (see Table 3). Controlling for physical violence exposure, exposure to more coercive control was associated with better friendship quality. The inclusion of coercive control in the model accounted for a significant increase in the amount of variance in the outcome explained by the predictors. Those exposed to physical violence during high school reported poorer friendship quality, but females reported better friendship quality. Social class was not associated with friendship quality.

Peer Relationships as Moderators

To address the second goal of the present dissertation, a series of multiple regressions were fit to examine if relationship experiences moderate the association between coercive control exposure and internalizing problems during young adulthood. The models were fit in four steps. The first step included all DV exposure variables (i.e., frequency of physical violence exposure and coercive control exposure). Step two included the peer relationship variable; step three included the moderation term. Exposure to coercive control and all peer relationship variables were centered prior to creating the moderation term. The final step of the model included all control variables (i.e., social class, exposure to physical violence during high school, and gender). For ease of reading, only the final step of the moderation analyses are presented. Significant moderation effects were examined further using simple slopes tests (Preacher, Curran, & Bauer, 2006).

Domestic violence exposure and internalizing problems.

Social Anxiety. To begin the moderation analyses, multiple regressions were fit to examine the association between DV exposure and each internalizing problem while controlling for physical violence exposure during high school, social class, and gender. Exposure to physical violence was not associated with social anxiety (see Table 4). Exposure to coercive control was associated with social anxiety, such that exposure to more coercive control was associated with more social anxiety. Social class was not associated with social anxiety, but exposure to physical violence during high school and gender were associated with social anxiety. Those exposed to physical violence during high school and females reported more social anxiety since leaving high school.

Depression. When examining the association between DV exposure and depression symptoms, frequency of physical violence was associated with more depression (see Table 4). Young adult exposed to more frequent violence reported more depression. Exposure to coercive control was not associated with depression symptoms. Social class was associated with depression symptoms, but neither exposure to physical violence during high school or gender was associated with depression symptoms. Participants from higher social class families reported fewer depressive symptoms.

Post-traumatic stress symptoms. Exposure to physical violence was not associated with PTSD symptoms (see Table 4). Exposure to coercive control was associated with PTSD symptoms, such that exposure to more coercive control was associated with more PTSD symptoms. Social class was associated with PTSD symptoms, but exposure to physical violence during high school and gender were not associated with PTSD symptoms. Participants in higher social class families reported less PTSD symptoms.

Bullying victimization as a moderator. The first model examined if bullying victimization increases internalizing problems in the context of coercive control exposure.

Social anxiety. Exposure to physical violence and coercive control were not associated with social anxiety (see Table 5). The main effect of bullying victimization was associated with social anxiety. Those who experienced more bullying victimization reported more social anxiety. Bullying victimization did not moderate the association between exposure to coercive control and social anxiety. Social class was not associated with social anxiety; exposure to physical violence during high school and gender were associated with social anxiety. Young adults exposed to physical violence during high school and females reported more social anxiety.

Depression. Exposure to physical violence and coercive control were not associated with depression symptoms (see Table 5). Bullying victimization was not associated with depression symptoms nor did it moderate the association between exposure to coercive control and depression symptoms. Social class was associated with depression symptoms, but neither exposure to physical violence during high school or gender was associated with depression symptoms. Participants from higher social class families reported fewer depressive symptoms.

Post-traumatic stress symptoms. Exposure to physical violence and coercive control were not associated with PTSD symptoms (see Table 5). Bullying victimization was not associated with PTSD symptoms nor did it moderate the association between exposure to coercive control and PTSD symptoms. Consistent with previous models, social class was associated with PTSD symptoms, but neither exposure to physical violence during high school or gender was associated with PTSD symptoms. Participants in higher social class families reported less PTSD symptoms.

Bullying perpetration as a moderator. The next model examined if bullying perpetration increases internalizing problems in the context of coercive control exposure.

Social anxiety. Exposure to physical violence was associated with social anxiety (see Table 6); young adults who reported exposure to more frequent violence reported less social anxiety. As in previous models, the main effect of exposure to coercive control was significant. Exposure to more coercive control was associated with more social anxiety. Bullying perpetration was not associated with social anxiety nor did bullying perpetration moderate the association between exposure to coercive control and social anxiety. Consistent with previous models, social class was not associated with social anxiety; exposure to physical violence during

high school and gender were associated with social anxiety. Those exposed to physical violence during high school and females reported more social anxiety.

Depression. Exposure to physical violence and coercive control were not associated with depression symptoms (see Table 6). Bullying perpetration was not associated with depression symptoms nor did it moderate the association between exposure to coercive control and depression symptoms. Consistent with previous models, social class was associated with depression symptoms, but neither exposure to physical violence during high school or gender was associated with depression symptoms. Participants from higher social class families reported fewer depressive symptoms.

Post-traumatic stress symptoms. Exposure to physical violence was not associated with PTSD symptoms (see Table 6). The main effect of exposure to coercive control was significant; exposure to more coercive control was associated with more PTSD symptoms. Bullying perpetration was not associated with PTSD symptoms nor did it moderate the association between exposure to coercive control and PTSD symptoms. Social class was associated with PTSD symptoms, but neither exposure to physical violence during high school or gender was associated with PTSD symptoms. Participants in higher social class families reported less PTSD symptoms.

Friendship quality as a moderator. The next model examined if friendship quality is protective against internalizing problems in the context of coercive control exposure.

Social anxiety. Exposure to physical violence was associated with social anxiety (see Table 7); young adults exposed to more frequent violence reported less social anxiety. The main effect of exposure to coercive control was still significant; exposure to more coercive control was associated with more social anxiety. Friendship quality moderated the association between

exposure to coercive control and social anxiety. Young adults with high quality friendships report similar levels of social anxiety regardless of their exposure to coercive control (see Figure 1). Simple slopes test indicated that the slope for young adults who report high quality friendships is not significant ($t = .41, p = ns$), but the slope for those with low quality friendships is significant ($t = 4.25, p < .001$). Young adults with poor quality friendships report less social anxiety when exposed to low levels of coercive control. Social class was not associated with social anxiety; exposure to physical violence during high school and gender were associated with social anxiety. Those exposed to physical violence during high school and females reported more social anxiety.

Depression. Exposure to physical violence and coercive control were not associated with depression symptoms (see Table 7). Friendship quality was not associated with depression symptoms nor did it moderate the association between exposure to coercive control and depression symptoms. Social class was associated with depression symptoms, but neither exposure to physical violence during high school or gender was associated with depression symptoms. Participants from higher social class families reported fewer depressive symptoms.

Post-traumatic stress symptoms. Exposure to physical violence was not associated with PTSD symptoms, but exposure to coercive control was associated with PTSD symptoms (see Table 7). Exposure to more coercive control was associated with more PTSD symptoms. Friendship quality was not associated with PTSD symptoms nor did it moderate the association between exposure to coercive control and PTSD symptoms. Social anxiety was associated with PTSD symptoms, but neither exposure to physical violence during high school or gender was associated with PTSD symptoms. Participants in higher social class families reported less PTSD symptoms.

Friend Specific Coping and Internalizing Problems

To address the third and final research question, are coping strategies that involve friends protective against internalizing problems above and beyond friendship quality, a final series of multiple regression models were fit. For these analyses, only those exposed to DV were included in the models ($n = 99$) as only those exposed to physical violence were asked questions regarding their coping strategies. Again, the models were fit in several steps; exposure to physical violence and coercive control, friendship quality, and disclosure or coping variable was included in step one. All two-way interactions (i.e., coercive control exposure and friendship quality; coercive control exposure and disclosure or coping strategy; friendship quality and disclosure or coping strategy) were included in step two. All variables were centered before creating the interaction terms. In the third step of the model, the three-way interaction between exposure to coercive control, friendship quality, and disclosure or coping strategy was added. As with previous models, control variables (i.e., social class, exposure to physical violence during high school, and gender) were included in the fourth and final step of the model.

Disclosing exposure experiences to a close friend was the most common, with 66% of young adults exposed to DV reporting disclosing their exposure experiences to a close friend. A majority of DV-exposed young adults reported coping with the violence and abuse by avoiding home by spending time with their friends (55%) and slightly less than half of participants exposed to DV (43%) reported talking to a friend about the violence.

Before testing the models, bivariate correlations were examined. Friendship quality was not associated with disclosure of violence and abuse or coping with the violence and abuse by spending time at a friend's house or talking to a friend about the violence (see Table 9). Frequency of physical violence exposure and exposure to coercive control were also not

associated with disclosure or either coping strategy. Disclosure of exposure experiences to a close friend was associated with increased social anxiety, but not with PTSD or depression symptoms. Neither avoiding home by spending time with friends or talking to a friend about the violence was associated with the three internalizing problem outcomes.

Disclosure of violence and abuse. First, I examined whether or not disclosing the violence and abuse to a close friend was additionally protective against internalizing problems.

Social anxiety. Consistent with previous models, exposure to physical violence and exposure to coercive control was associated with social anxiety (see Table 9). Exposure to more frequent physical violence was associated with less social anxiety; exposure to more coercive control was associated with more social anxiety. Disclosing to a friend was not associated with social anxiety. Friendship quality continued to moderate the association between exposure to coercive control and social anxiety; no other two-way interaction terms were significant. The three-way interaction between exposure to coercive control, friendship quality, and disclosure of violence and abuse was not significant. As with previous models, social class was not associated with social anxiety; exposure to physical violence during high school and gender were associated with social anxiety. Those exposed to physical violence during high school and females reported more social anxiety.

Depression. Exposure to physical violence and coercive control was not associated with depressive symptoms (see Table 9). Disclosure of exposure experiences to a close friend and friendship quality were not associated with depression symptoms. None of the two-way and the three-way interactions were significant. Social class and gender were associated with depression symptoms, but exposure to physical violence during high school was not associated with

depression symptoms. Participants from higher social class families reported fewer depression symptoms; female participants reported more depression symptoms.

Post-traumatic stress symptoms. Exposure to physical violence was not associated with PTSD symptoms (see Table 9); exposure to coercive control was associated with PTSD symptoms. Young adults exposed to more coercive control reported more PTSD symptoms. Neither friendship quality nor disclosing the violence to a friend were associated with PTSD symptoms. None of the two-way interactions between exposure to coercive control, friendship quality, and disclosure were significant, nor was the three-way interaction between all three variables. In this model, the control variables (i.e., social class, exposure to physical violence during high school, and gender) were not associated with PTSD symptoms.

Avoiding home by spending time with friends. Second, I examined if avoiding home by spending time with friends was additionally protective against internalizing problems.

Social anxiety. Consistent with previous models, exposure to physical violence and exposure to coercive control were associated with social anxiety (see Table 10). Exposure to more frequent physical violence was associated with less social anxiety; exposure to more coercive control was associated with more social anxiety. The main effects of friendship quality and avoiding home by spending time with friends was not significant. Friendship quality continued to moderate the association between exposure to coercive control and social anxiety. Avoiding home by spending time with friends moderated the association between exposure to coercive control and social anxiety (see Figure 2). Simple slopes indicate that the slope for young adults who report avoiding home by spending time with friends is not significant ($t = .58, p = ns$), but the slope for those who do not avoid home to spend time with their friends is significant ($t = 3.32, p < .001$). Individuals reported more social anxiety when exposed to more coercive

control and did not cope by avoiding home by spending time with friends. Social class and gender were not associated with social anxiety, however exposure to physical violence during high school was associated with social anxiety. Exposure to physical violence during high school was associated with more social anxiety.

Depression. Exposure to physical violence and coercive control was not associated with depressive symptoms (see Table 10). Avoiding home by spending time with friends and friendship quality were both not associated with depression symptoms. None of the two-way and the three-way interactions were significant. Social class and gender were associated with depression symptoms, but exposure to physical violence during high school was not associated with depression symptoms. Participants from higher social class families reported fewer depression symptoms; female participants reported more depression symptoms.

Post-traumatic stress symptoms. Exposure to physical violence was not associated with PTSD symptoms (see Table 10); exposure to coercive control was associated with PTSD symptoms. Young adults exposed to more coercive control reported more PTSD symptoms. Neither friendship quality nor avoiding home by spending time with friends were associated with PTSD symptoms. None of the two-way interactions between exposure to coercive control, friendship quality, and avoiding home by spending time with friends were significant, nor was the three-way interaction between all three variables. In this model, control variables (i.e., social class, exposure to physical violence during high school, and gender) were not associated with PTSD symptoms.

Talking to a friend about the violence and abuse. Finally, I examined if talking to a friend about the violence and abuse was additionally protective against internalizing problems.

Social anxiety. Consistent with previous models, exposure to physical violence and exposure to coercive control were associated with social anxiety (see Table 11). Exposure to more frequent physical violence was associated with less social anxiety; exposure to more coercive control was associated with more social anxiety. Talking to a friend about the violence and abuse was not associated with social anxiety. Friendship quality continued to moderate the association between exposure to coercive control and social anxiety; no other two-way interaction terms were significant. The three-way interaction between exposure to coercive control, friendship quality, and talking to a friend about the violence and abuse was not significant. As with previous models, social class was not associated with social anxiety; exposure to physical violence during high school and gender were associated with social anxiety. Those exposed to physical violence during high school and females reported more social anxiety.

Depression. Exposure to physical violence and coercive control was not associated with depressive symptoms (see Table 11). Talking to a friend about the violence and abuse and friendship quality were both not associated with depression symptoms. None of the two-way and the three-way interactions were significant. Social class and gender were associated with depression symptoms, but exposure to physical violence during high school was not associated with depression symptoms. Participants from higher social class families reported fewer depression symptoms; female participants reported more depression symptoms.

Post-traumatic stress symptoms. Exposure to physical violence was not associated with PTSD symptoms (see Table 11); exposure to coercive control was associated with PTSD symptoms. Young adults exposed to more coercive control reported more PTSD symptoms. Neither friendship quality nor talking to a friend about the violence were associated with PTSD symptoms. The interaction between exposure to coercive control and friendship quality was not

significant, but both the interaction between exposure to coercive control and talking to a friend about the violence (see Figure 3) and friendship quality and talking to a friend about the violence was significant (see Figure 4). Simple slopes indicate that the slope for young adults who report talking to their friend about the violence is not significant ($t = 1.71, p = ns$), but the slope for those who do not talk to their friend about the violence is significant ($t = 2.70, p < .01$). Simple slopes indicate that the slope for young adults who report talking to their friend about the violence is significant ($t = 2.59, p < .01$), but the slope for those who do not talk to their friend about the violence is not significant ($t = .96, p = ns$).

Young adult who reported talking to their friend about the violence and abuse reported less PTSD symptoms regardless of their exposure to coercive control. Young adult who did not talk to their friend about the violence report more PTSD symptoms in the context of high levels of coercive control exposure compared to those with lower quality friendships exposed to low levels of coercive control (see Figure 3). Young adult who reported low quality friendships reported more PTSD symptoms when they did not talk to their friends about the violence and abuse compared to those who reported low quality friendship but did talk to their friends about the violence and abuse (see Figure 4). Young adults who report high quality friendships report more PTSD symptoms when they did talk to their friends about the violence compared to young adults who did not talk to their friends about the violence. The three-way interaction between exposure to coercive control, friendship quality, and talking to a friend about the violence was not significant. In this model, control variables (i.e., social class, exposure to physical violence during high school, and gender) were not associated with PTSD symptoms.

Chapter 5: Discussion

To our knowledge, the present dissertation is the first to examine how exposure to coercive control, controlling for physical violence exposure, is associated with peer relationships during high school. When controlling for frequency of physical violence exposure, exposure to coercive control was associated with both peer relationships and internalizing problems. Such that exposure to more coercive control was associated with more bullying victimization, higher quality friendships, more social anxiety, and more PTSD symptoms. These findings are consistent with the only previous study to examine the impact of DV exposure on adjustment outcomes (Jouriles & McDonald, 2015). Within the adult DV literature, coercive control has been considered a salient dimension in the operationalization of DV and key to understanding women's victimization experiences (Hardesty et al., 2015; Johnson & Leone, 2005; Stark, 2007). However, the youth exposure literature, to date, has largely relied on measurement of discrete acts of physical violence to examine DV exposure without considering coercive control or the context in which the violence occurs (Haselschwerdt, 2014; Haselschwerdt et al., 2017). Researchers have argued that operationalization of DV exposure as exposure to physical violence underlies inconsistent findings within the exposure literature (Haselschwerdt, 2014). Two recent studies provided evidence that coercive control was associated with differing exposure experiences (Haselschwerdt et al., 2016) and adjustment after DV exposure (Jouriles & McDonald, 2015). The present dissertation adds to this small body of research by providing evidence for the saliency of measuring exposure to coercive control in understanding outcomes associated with DV exposure.

Researchers have repeatedly called for better operationalization and measurement of DV exposure to accurately capture the experiences of exposed youth, differing exposure experiences,

and how exposure is associated with a range of outcomes (Finkelhor et al., 2005; Hamby et al., 2010; Haselschwerdt, 2014; Haselschwerdt et al., 2017; Holden, 2003; Jouriles et al., 2008). The findings of the present dissertation provide additional evidence that measuring DV exposure through the use of discrete acts of physical violence is not sufficient for understanding the ways in which DV exposure potentially impacts peer relationships. Additionally, each dimension of DV exposure (i.e., frequency of violence exposure and exposure to coercive control) is associated differently with each peer relationship and internalizing problem outcome. This may suggest that the process through which DV exposure impacts development varies depending on the outcome examined. Therefore, the use a more holistic operationalization of DV exposure that includes exposure to coercive control along with frequency of physical violence exposure may be even more useful in flushing out our understanding of how DV exposure is associated with different developmental outcomes.

Peer Relationships as an Outcome

Though previous research has shown that exposure to physical violence is associated with more bullying victimization and perpetration (Baldry, 2003; Bauer et al., 2006; Espelage et al., 2012), the inclusion of exposure to coercive control in the current study provides some evidence that the association between DV exposure and peer relationships during high school is more complex. Additionally, along with previous studies (Katz et al., 2007; McCloskey & Stuewig, 2001), the present dissertation provides evidence that DV-exposed youth's peer relationships are not all negative. In fact, in the current sample, both bullying victimization and perpetration were quite low and DV-exposed young adults' report of friendship quality was similar to non-exposed young adults.

Domestic Violence Exposure and Bullying Victimization

Consistent with previous literature (Baldry, 2003; Bauer et al., 2006; Espelage et al., 2012), the present study found that exposure to physical violence was associated with more bullying perpetration. However, when exposure to coercive control was included in the model, the association between exposure to physical violence and bullying victimization was no longer significant. Compared to youth exposed to physical violence and low coercive control, youth exposed to physical violence in the context of high coercive control live in a particularly hostile home environment (Bancroft, 2002; Edleson & Williams, 2007; Haselschwerdt et al., 2016; Haselschwerdt, Maddox, & Hlavaty, under review; Holden, Barker, Appel, & Hazlewood, 2010; Øverlien, 2013) that may explain the link between exposure to coercive control and bullying victimization. Often, youth exposed to physical violence in the context of high levels of coercive control report feeling constantly fearful due to both the physical abuse perpetrated against their mothers, but also because of their own interactions with their fathers (Øverlien, 2013).

These parenting behaviors and the hostile environment in which youth exposed to high levels of coercive control live may be a large contributor to their risk of bullying victimization. Youth who are bullied report poorer social competence, are more passive or less assertive, more anxious, insecure, and have lower self esteem (Olweus, 1999; Pellegrini, Bartini, & Brooks, 1999; Shetgiri, 2013; Smokowski & Kopasz, 2005). As these youth are restricted from developmentally appropriate peer interactions (Haselschwerdt, Maddox, & Hlavaty, under review; Øverlien, 2013), they may not be able to develop good social skills. In fact, in one study, almost half of the DV-exposed youth reported poor social competence (Graham-Bermann et al., 2009). Additionally, youth exposed to high levels of coercive control report feeling constantly anxious and fearful (Haselschwerdt, Maddox, & Hlavaty, under review; Øverlien, 2013) and

youth exposed to high levels of any type of marital conflict report high levels of arousal (Davies & Cummings, 1994). Due to their anxious and aroused state, these youth may show more of the behaviors (e.g., anxious behavior) that are associated with bullying victimization (Baldry, 2003).

Though the present dissertation is the first of our knowledge to examine the association between exposure to coercive control and bullying victimization, controlling for physical violence exposure, there is evidence in the current literature that suggests that factors outside of physical violence exposure has some impact on the association between DV exposure and bullying victimization. Given the findings of the present dissertation, exposure to coercive control may be a salient missing factor explaining the substantial variation in findings regarding the association between DV exposure and bullying victimization. First, there are youth who are exposed to DV who do not report bullying victimization (Bauer et al., 2006; Espelage et al., 2012). As previous research has been focused on predicting the antecedents bullying behaviors, researchers have yet to flush out what aspects of DV exposure or under what conditions DV exposure is associated with bullying victimization. Though untested, it is possible that exposure to coercive control may, at least in part, explain why in these previous studies there were large samples of DV exposed youth – as high as 46% (Bauer et al., 2006) – who did not report bullying victimization. That is, that those who are reporting DV exposure and no bullying are exposed to DV exposure in the context of low or no coercive control, consistent with the findings of the present study.

Second, previous studies have suggested that once other factors (e.g., child abuse and maltreatment; Bauer et al., 2006) are considered, the association between DV exposure and bullying victimization is no longer significant. Though these studies operationalize DV exposure as exposure to discrete acts of physical violence, recent qualitative research found that youth

exposed to more coercive control report exposure to severe and frequent violence and child abuse and maltreatment than youth exposed to DV in the context of no or low coercive control (Haselschwerdt et al., 2016). Though not a direct examination of exposure to coercive control, Bauer and colleagues (2006) study provides some additional evidence that physical violence exposure alone may not fully explain the association between DV exposure and bullying victimization. Thus, using a more holistic operationalization of DV exposure that includes exposure to coercive control may assist researchers in understanding why findings regarding the association between DV exposure and bullying victimization exists in the current literature.

Domestic Violence Exposure and Bullying Perpetration

As with previous literature (Baldry, 2003; Espelage et al., 2014), exposure to DV was associated with more bullying perpetration. Researchers have suggested that a social learning perspective (Bandura, 1986) may explain the link between exposure to physical violence and bullying perpetration (Baldry, 2003; Bauer et al., 2006; Espelage et al., 2014; Knous-Westfall et al., 2012). That is, youth exposed to physical violence learn aggressive or violent behavior gets them what they desire from their peers (Baldry & Farrington, 1998). However, after other factors were accounted for, the association between physical violence exposure and bullying perpetration was no longer significant. This suggests that, as with bullying victimization, other individual and family factors may explain, at least in part, the association between DV exposure and bullying perpetration. Previous research has also found that physical violence exposure is not associated with bullying perpetration under all conditions; Knous-Westfall and colleagues (2012) found that exposure to more severe violence was associated with bullying perpetration for males. Overall, this suggests that more research is needed to understand the conditions under which physical violence exposure is associated with bullying perpetration.

There are two possible reasons why exposure to coercive control was not associated with bullying perpetration. First, utilizing a social learning perspective, acts of physical violence and their effects are more readily observable; coercive controlling behaviors are not overt or readily observable by youth. Therefore, youth are not able to easily model coercive controlling behaviors in other relationships. Second, if exposure to more coercive control is associated with bullying victimization and behaviors (e.g., passive behaviors, anxious or fearful behaviors) that increase the risk of bullying victimization (Baldry, 2003), then it is possible that youth exposed to more coercive control do not have the social power needed to engage in effective bullying behavior.

Domestic Violence Exposure and Friendship Quality

Consistent with previous literature (Katz et al., 2007; McCloskey & Stuewig, 2001), the present study finds that exposure to physical violence is not associated with friendship quality. The present study adds to this small body of literature examining friendships of DV exposed youth by examining friendships at a later age than previous studies (ages 9-13, Katz et al., 2007; ages 6-12; McCloskey & Stuewig, 2001). Taken together, these findings provide additional support for the current literature to move away from its focus on DV-exposed negative peer interactions and explore their positive peer relationship experiences as well.

As with bullying victimization and perpetration, exposure to coercive control, when controlling for physical violence exposure, was associated with friendship quality. It is not quite clear why exposure to more coercive control is associated with better friendship quality. It is possible that youth exposed to more coercive control are more distressed and may seek support from their friends more often given the chronicity of their adverse family experiences. The present dissertation and previous literature (Jouriles & McDonald, 2015) find that exposure to

more coercive control is associated with more internalizing problems. As friends are the main source of social support during this developmental period (Chow et al., 2012), it is possible that these adolescents are seeking more support from their friends due to their heightened level of distress. Additionally, though exposure to more coercive control is associated with more bullying victimization, bullied adolescents may be able to develop quality friendships and these friendships can be protective against negative outcomes (Holt & Epselage, 2007). Therefore, it is possible for DV-exposed youth who experience bullying victimization to also develop high quality friendships than can be protective against internalizing problems. Again, this process of seeking support from their friends to cope with these stressful experiences may also underlie why youth exposed to high levels of coercive control report better friendship quality.

Peer Relationships as a Moderator

The present dissertation was the first, to our knowledge, to examine how peer relationships moderate the association between exposure to coercive control and internalizing problems. Previous research has suggested that bullying victimization (Camacho et al., 2012) exacerbates the association between DV exposure and internalizing problems, while positive peer relationships (Tajima et al., 2011) protects against internalizing problems in the context of DV exposure. Though bullying victimization and perpetration did not exacerbate internalizing problems in the context of DV exposure, friendship quality did appear to protect against specific internalizing problems.

Bullying Victimization and Perpetration and Internalizing Problems

Unlike previous studies which suggest that DV-exposed youth who experience bullying victimization report more internalizing problems compared to DV exposed youth who do not report bullying victimization (Camacho et al., 2012), the present dissertation did not find that

bullying victimization moderates the association between exposure to coercive control and internalizing problems. However, previous literature has used more proximal measures of bullying victimization and internalizing problems (Camacho et al., 2012). Thus, it is possible that more proximal peer relationship experiences (i.e., peer relationships in young adulthood) may affect the association between high school peer relationships and internalizing problems. For example, if after leaving high school, young adults' peer relationships improved, the impact of high school bullying victimization experiences may be less relevant to their current internalizing problems. Similarly, if individuals continue to experience high levels of negative peer interactions (e.g., bullying victimization), these more proximal peer relationships may compound previous victimization experiences in the association with internalizing problems. It is also possible that other interpersonal relationships (e.g., romantic relationships) may play a bigger role in internalizing problems during young adulthood, such that high school peer relationships are not as strongly associated with internalizing problems during later developmental stages. Alternatively, it may be that current levels of internalizing problems may be influencing these retrospective reports of peer relationships, making it difficult to detect how previous experiences are associated with current functioning.

Bullying perpetration did not moderate the association between exposure to coercive control and internalizing problems during young adulthood. To our knowledge, no previous study has examined bullying perpetration as a moderator in the association between DV exposure and internalizing problems. Though there is some evidence that bullying perpetration is associated with internalizing problems (Brunstein Klomek et al., 2013; Pabian & Vandebosch, 2016), bullying perpetration is more commonly examined as a predictor of externalizing problems (e.g., Ttofi, Bowes, Farrington, & Lösel, 2014). As there is evidence that exposure to

coercive control (Jouriles & McDonald, 2015) is associated with increased externalizing problems as well, future research should consider examining bullying perpetration as a moderator of the association between exposure to coercive control and externalizing behavior.

Friendship Quality and Internalizing Problems

Friendship quality moderated the association between exposure to more coercive control and internalizing problems, but only for social anxiety. Contrary to previous literature, higher quality friendships were associated with more social anxiety (La Greca & Lopez, 1998). However, this association may be due to the specific population examined in this dissertation (i.e. DV-exposed youth). A strong stigma is attached to DV, and DV exposure and youth exposed to DV are aware of this stigma and fear being judged by others based on their exposure experiences (Buckley, Holt, & Whelan, 2007). It is possible that fear of this stigma is more salient for youth who have better peer relationships or better quality friendships because they may feel they have more to lose (e.g., friendships, respect from peers, peer acceptance) if peers evaluate them negatively due to their exposure experiences.

Adolescents without a high-quality friendship report more social anxiety in the context of high levels of coercive control than when exposed to low levels of coercive control. Social anxiety does not differ by exposure to coercive control for those with a high-quality friendship. As those exposed to more coercive control report experiencing more fear and anxiety within their homes (Øverlien, 2013), this fear and anxiety of others may carry over into other relationships as well. When individuals exposed to high levels of coercive control build a high-quality relationship, it is possible that this fear is mitigated by their previous experiences with peers or their confidence in their ability to have positive relationships with others that may have been developed through their friendships. Individuals without high quality peer relationships may see

an increase in their social anxiety when exposed to high levels of coercive control because they do not have the positive experiences with peers to mitigate their fears of interacting with others.

Though a previous study has found peer relationships (i.e., peer communication) to be protective against depression and other maladaptive outcomes in the context of DV exposure (Tajima et al., 2011), the present dissertation did not find friendship quality to be protective against all internalizing problem outcomes. Given that exposure to more coercive control is associated with experiencing a home environment characterized by high levels of hostility and fear (Øverlien, 2013), other relationship experiences may not be able to mitigate all of the developmental consequences of living with these familial conditions. The protective nature of friendships or other peer relationships may be more domain specific in the context of exposure to coercive control. Friendships may not be able to mitigate trauma or PTSD symptoms associated with living in a hostile home environment, but they can make youth feel confident in their interactions with others outside of their home.

Friend Specific Coping, Friendship Quality, and Internalizing Problems

Friend specific coping mechanisms (i.e., disclosing violence and abuse to a friend, avoiding home by spending time with friends, and talking to a friend about the violence and abuse) were not additionally protective against internalizing problems in the context of exposure to coercive control. A substantial proportion of individuals reported using each of the three coping strategies, and none of these coping strategies were associated with friendship quality at the bivariate level. It is possible that individuals used these coping strategies regardless of friendship quality. As friendship quality does not appear to be tied to the coping strategies that individuals use in the context of exposure to coercive control, it is possible that the specific

coping strategies used don't provide additional protection against internalizing problems for DV-exposed individuals.

Measurement and operationalization of friendship quality in the current dissertation may explain, at least in part, this lack of finding. The present dissertation measured friendship quality using a measure focused on feelings of trust and emotional support within a friendship (Buhrmester, Comparo, & Christensen, 1991). It is possible that feelings of closeness, trust, and emotional support within the friendship may be more important in understanding how friendships are protective against internalizing problems in the context of DV exposure rather than specific behaviors, like disclosing. For example, for DV-exposed individuals, feeling like they can tell their friend intimate details about their life and receiving support may be more important than disclosing and discussing DV.

It is also important to note that even though individuals exposed to DV report disclosing the violence and abuse to friends frequently, they do not always report that their friends respond in a helpful or supportive manner (e.g., DePrince, Welton-Mitchell, & Srinivas, 2014; Edwards, Dardis, & Gidycz, 2011; Fehler-Cabral & Campbell, 2013). Even when using one of these coping strategies in the context of a high-quality friendship, DV-exposed individuals may not feel supported or feel that their friends' response was helpful. Often friends respond to traumatic experiences in ways that attempt to be helpful, but the individual seeking support may still feel invalidated or unsupported (Ocampo et al., 2012). Future research may also consider feelings of helpfulness or support after using these coping mechanisms in understanding how they are associated with internalizing problems for DV-exposed individuals.

The present dissertation did find some evidence that talking to a friend about the violence and abuse was protective against PTSD symptoms. Talking to a friend about the violence and

abuse was associated with fewer PTSD symptoms, particularly in the context of exposure to high levels of coercive control. Those who did not talk to their friends about the violence reported more PTSD symptoms when exposed to high levels of coercive control compared to those who did not talk to their friends when exposed to low levels of coercive control. Additionally, those talking to a friend about the violence was associated with more social anxiety, young adults who reported talking to their friend about the violence did not report more social anxiety in the context of high levels of coercive control whereas those who did not talk to their friend about the violence reported more social anxiety in the context of high levels of coercive control exposure. These findings provide some evidence in support of the belief that it is social support or support seeking that make friendships and positive peer interactions protective against internalizing problems in the context of DV exposure (Tajima et al., 2011).

In other cases, however, these coping strategies were associated with more internalizing problems. Avoiding home by spending time with friends was associated with more social anxiety and talking to a friend about the violence was associated with more PTSD symptoms among DV-exposed individuals with better friendships quality. There are two possible explanations for why the use of these coping strategies would be associated with more internalizing problems. First, DV-exposed adolescents who feel more distressed may use more coping strategies. It is important to note that the current dissertation is correlational, and therefore, cannot determine the direction of effects in this association. Thus, it may not be the use of these coping strategies that drives internalizing problems, but internalizing problems that drive the use of these coping mechanisms. Second, corumination regarding the violence and abuse may be occurring in these friendships if DV-exposed individuals are talking to their friends about the violence frequently. Corumination, or extensively discussing and focusing on problems and negative emotions, can

occur in high quality friendships and is associated with internalizing problems (Hankin, Stone, & Wright, 2010; Rose, 2002).

Limitations

The findings of the current dissertation should be considered in the context of several limitations. First, the present dissertation is retrospective and subject to recall bias. Previous studies have found that young adults are able to recall their DV exposure experiences with great detail, even when the first exposure experience occurs at a young age (Haselschwerdt et al., 2016), yet, future studies should still examine the association between DV exposure and peer relationships longitudinally. It should also be noted that young children and younger adolescents may not be as attuned to coercive controlling behaviors as older adolescents and young adults due to the subtle nature of these behaviors (Black, Sussman, & Unger, 2010), thus using older adolescents and young adults' reports of their experiences while growing up may allow for researchers to better capture exposure to coercive control. Second, the sample included in the present dissertation is largely European American and female, which limits the ability of the present dissertation to generalize its findings to more diverse populations. Though there was some diversity in the current sample in regards to social class, future research should include a more male, racial and ethnic minorities, and non-college attending young adults (e.g., military enlisted or incarcerated young adults) in understanding how DV exposure is associated with peer relationships. Finally, the current sample reported higher than expected rates of depression. However, this may be due at least in part to the measure of depression used in the present dissertation. A more comprehensive measurement of depression should be used in future studies that may capture more variation in depression symptoms, and, thus, illuminate a possible

association between exposure to coercive control and depression and/or if peer relationships moderate the association between DV exposure and depression.

Future Directions

Though the present dissertation begins to bridge an important gap in the current literature, additional research is still needed to understand the association between DV exposure and peer relationships. First, few studies within the current literature examining the peer relationships of DV-exposed youth in depth utilize longitudinal designs. The few studies that do utilize longitudinal designs, examine the association across a short duration (Criss et al., 2002; Espelage et al., 2014; Tajima et al., 2011). Additionally, the majority of present studies examine the peer relationships of adolescents in middle school (Bauer et al., 2006; Espelage et al., 2012; Espelage et al., 2014; Katz et al., 2007; Knous-Westfall et al., 2012; McCloskey & Stuewig, 2001). Particularly during adolescence, peer relationships undergo significant developmental changes and fulfill new and important developmental needs (Rubin et al., 1998). It is not clear if DV exposure is associated with peer relationship experiences in similar ways across development. Longitudinal research is needed to understand how DV exposure is associated with peer relationship experiences across development and to understand how these peer relationships over time.

Second, mixed-methods and qualitative research is needed to understand the peer relationships of DV-exposed youth in greater depth. Current research examining the peer relationships of DV-exposed youth often examine different peer relationships in isolation of each other and uses broad measures of each experience. However, the relationships DV-exposed youth have with their peers appears to be more complex, with DV-exposed youth reporting both positive and negative peer relationships (Camacho et al., 2012; Katz et al., 2007; McCloskey &

Stuewig, 2001). The use of qualitative and mixed method research would be useful in better understanding the complexity in DV-exposed youth's peer relationships as well as the characteristics and qualities of these relationships and the underlying processes of these relationships.

Finally, though DV exposure appears to be an important predictor of peer relationships during adolescence, DV exposure does not occur in isolation of other family processes, like parenting and child abuse and maltreatment (Bancroft, 2002; Edleson & Williams, 2007; Øverlien, 2013), which are also associated with peer relationships (e.g., Cui, Conger, Bryant, & Elder, 2002; Schwartz et al., 1997). Previous literature has documented how parenting in the context of DV exposure is associated with a variety of outcomes. For example, having a positive relationship with their mothers is a protective factor for youth exposed to DV (Graham-Bermann et al, 2009; Holt, Buckley, & Whelan, 2008). Of particular concern is experiences of dual-exposure or experiencing DV exposure and child abuse and maltreatment (Herrenkohl, Sousa, Tajima, Herrenkohl, & Moylan, 2008). Dual-exposure is associated with more maladaptive adjustment compared to DV exposure (Herrenkohl et al., 2008). Moreover, Bauer and colleagues (2006) have provided evidence that child abuse and maltreatment is more strongly associated with peer relationship experiences than DV exposure. Therefore, future research should also consider parenting and child abuse and maltreatment in understanding how DV exposure is associated with peer relationships.

Overall, the present dissertation added to the small body of literature (Haselschwerdt et al., 2016; Jouriles & McDonald, 2015) that suggests that exposure to coercive control is a salient dimension of DV exposure that explains some of the variation in adjustment outcomes associated with DV exposure. The present dissertation also bridged an important gap in the current

literature examining the peer relationships of DV exposed youth by being the first to include exposure to coercive control in its operationalization of DV exposure. As with previous studies (Jouriles & McDonald, 2015), exposure to coercive control was associated with peer relationships and internalizing problems when controlling for physical violence exposure. Importantly, however, it does appear that DV exposed adolescents report positive peer relationship experiences (i.e., high quality friendships) and that these peer relationships can be protective against some internalizing problems. Future research should continue to examine the positive peer relationship experiences of DV-exposed youth as these experiences have the potential to inform future intervention programs.

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Table 1. *Descriptive statistics across all examined variables and comparisons between DV-exposed and non-exposed samples.*

	DV-exposed (<i>n</i> = 99)	Non-exposed (<i>n</i> = 48)	<i>t</i> (df)
	<i>M</i> (SD)	<i>M</i> (SD)	
Frequency	2.17 (.92)	-	-
Exposure to coercive control	16.02 (7.21)	8.41 (2.22)	-9.60 (130)***
Bullying victimization	1.74 (.75)	1.43 (.49)	-2.95 (133)**
Bullying perpetration	1.47 (.67)	1.16 (.24)	-4.23 (137)***
Friendship quality	3.62 (1.03)	4.03 (.72)	2.66 (123)**
Social anxiety	2.74 (1.09)	2.57 (.90)	-.96 (145)
Depression symptoms	1.12 (.84)	.79 (.82)	-2.25 (145)*
PTSD symptoms	14.76 (6.27)	13.31 (5.72)	-1.35 (145)

Note. **p* < .05. ***p* < .01. ****p* < .001. Frequency indicates frequency of physical violence exposure.

Table 2. *Bivariate correlations between all variables*

	1	2	3	4	5	6	7	8	9	10
1. Frequency	-	-	-	-	-	-	-	-	-	-
2. Exposure to coercive control	.70***	-	-	-	-	-	-	-	-	-
3. Bullying victimization	.29***	.47***	-	-	-	-	-	-	-	-
4. Bullying perpetration	.27***	.25**	.59***	-	-	-	-	-	-	-
5. Friendship quality	.07	.19*	.06	-.09	-	-	-	-	-	-
6. Social anxiety	.08	.25**	.21*	.37***	.01	-	-	-	-	-
7. Depression symptoms	.19*	.25***	.00	.20*	.06	.28***	-	-	-	-
8. PTSD symptoms	.13	.28***	.14	.22**	-.02	.41***	.57***	-	-	-
9. Social Class	-.28***	-.34***	-.24**	-.13	-.02	-.10	-.29***	-.24**	-	-
10. Exposed in H.S.	.32***	.20*	-.06	.00	-.19*	.18*	.06	-.04	-.06	-
11. Female	.01	.07	-.06	-.17*	.25**	.22**	.08	.12	.05	.02

Note. * $p < .05$. ** $p < .01$. *** $p < .001$. Frequency indicates frequency of physical violence exposure. Exposed in H.S. indicates exposed to physical violence or not in high school, female indicates gender.

Table 3. Domestic violence exposure predicting bullying victimization, bullying perpetration, and friendship quality during high school.

	Bullying Victimization			Bullying Perpetration			Friendship Quality		
	B (SE)	β	ΔR^2	B (SE)	β	ΔR^2	B (SE)	β	ΔR^2
Step 1									
Frequency	.21 (.06)***	.29		.17 (.05)***	-.15		.07 (.09)	.08	
			.08***			.07***			.00
Step 2									
Frequency	-.05 (.08)	-.07		.11 (.07)	-.21		-.16 (.12)	-.15	
Exposure to coercive control	.05 (.01)***	.51		.01 (.01)	.10		.04 (.02)*	.30	
			.14***			.01			.04*
Step 3									
Frequency	-.02 (.08)	-.03		.12 (.07)	-.16		-.06 (.12)	-.06	
Exposure to coercive control	.05 (.01)***	.50		.01 (.01)	.11		.04 (.02)*	.27	
Social class	-.06 (.06)	-.08		-.02 (.06)	.01		.01 (.09)	.01	
Exposed in H.S.	-.24 (.12)*	-.15		-.11 (.11)	-.12		-.51 (.18)**	-.24	
Female	-.13 (.11)	-.08		-.23 (.10)*	-.13		.50 (.17)**	.23	
			.04			.04			.10***
Total R ²			.25			.12			.15

Note. * $p < .05$. ** $p < .01$. *** $p < .001$. Frequency indicates frequency of physical violence exposure. Exposed in H.S. indicates exposed to physical violence or not in high school, female indicates gender.

Table 4. Domestic violence exposure predicting internalizing problems during young adulthood.

	Social Anxiety			Depression			PTSD Symptoms		
	B (SE)	β	ΔR^2	B (SE)	β	ΔR^2	B (SE)	β	ΔR^2
Step 1									
Frequency	.09 (.09)	.08		.17 (.07)*	.19		.87 (.54)	.13	
			.007			.04*			.02
Step 2									
Frequency	-.20 (.12)	-.18		.03 (.10)*	.04		-.75 (.73)	-.12	
Exposure to coercive control	.06 (.02)***	.38		.03 (.01)	.22		.31 (.10)***	.36	
			.07***			.03*			.07***
Step 3									
Frequency	-.26 (.12)	-.23		.02 (.10)	.02		-.60 (.75)	-.09	
Exposure to coercive control	.05 (.02)**	.35		.02 (.01)	.15		.25 (.10)**	.29	
Social class	-.06 (.10)	-.05		-.23 (.08)**	-.24		-1.24 (.58)*	-.18	
Exposed in H.S.	.43 (.19)*	.19		.03 (.16)	-.02		-1.16 (1.16)	-.08	
Female	.46 (.18)*	.20		.16 (.15)	.08		1.50 (1.08)	.11	
			.07**			.06*			.04
Total R ²			.15			.12			.14

Note. * $p < .05$. ** $p < .01$. *** $p < .001$. Frequency indicates frequency of physical violence exposure. Exposed in H.S. indicates exposed to physical violence or not in high school, female indicates gender.

Table 5. *Bullying victimization during high school as a moderator of the association between exposure to coercive control and internalizing problems during young adulthood.*

	Social Anxiety		Depression		PTSD Symptoms	
	B (SE)	β	B (SE)	β	B (SE)	β
Frequency	-.24 (.12)	-.13	.04 (.11)	.04	-.50 (.76)	-.08
Exposure to coercive control	.03 (.02)	.19	.01 (.02)	.07	.20 (.11)	.22
Bullying victimization	.48 (.14)***	.34	.07 (.12)	.06	.66 (.89)	.07
Coercive control X bullying victimization	.00 (.01)	-.01	.01 (.01)	.09	.05 (.09)	.05
Social class	-.03 (.09)	-.03	-.22 (.08)*	-.22	-1.15 (.59)*	-.17
Exposed in H.S.	.55 (.19)**	.25	.07 (.16)	.04	-.88 (1.18)	-.06
Female	.52 (.18)**	.22	.18 (.15)	.10	1.66 (1.08)	.12
Total R^2		.23		.13		.14

Note. * $p < .05$. ** $p < .01$. Frequency indicates frequency of physical violence exposure. Exposed in H.S. indicates exposed to physical violence or not in high school, female indicates gender.

Table 6. *Bullying perpetration during high school as a moderator of the association between exposure to coercive control and internalizing problems during young adulthood.*

	Social Anxiety		Depression		PTSD Symptoms	
	B (SE)	β	B (SE)	β	B (SE)	β
Frequency	-.30 (.13)*	-.26	.02 (.11)	.03	-.45 (.77)	-.07
Exposure to coercive control	.05 (.02)***	.36	.02 (.01)	.14	.26 (.10)**	.30
Bullying perpetration	.14 (.16)	.08	-.03 (.14)	-.02	-1.01 (.97)	-.10
Coercive control X bullying perpetration	-.03 (.02)	-.13	.01 (.02)	.04	.04 (.12)	.03
Social class	-.07 (.10)	-.06	-.23 (.08)*	-.24	-1.23 (.59)*	-.18
Exposed in H.S.	.41 (.20)*	.17	.03 (.16)	-.02	-1.22 (1.17)	-.09
Female	.51 (.18)**	.22	.15 (.15)	.08	1.26 (1.11)	.09
Total R^2		.17		.12		.13

Note. * $p < .05$. ** $p < .01$. Frequency indicates frequency of physical violence exposure. Exposed in H.S. indicates exposed to physical violence or not in high school, female indicates gender.

Table 7. *Friendship quality during high school as a moderator of the association between exposure to coercive control and internalizing problems during young adulthood.*

	Social Anxiety		Depression		PTSD Symptoms	
	B (SE)	β	B (SE)	β	B (SE)	β
Frequency	-.34 (.12)**	-.30	.00 (.11)	-.28	-1.26 (.77)	-.20
Exposure to coercive control	.08 (.02)***	.51	.02 (.02)	.15	.35 (.11)**	.42
Friendship quality	.12 (.10)	.11	-.05 (.08)	-.02	.23 (.55)	.04
Coercive control X friendship quality	-.05 (.02)***	-.32	.00 (.01)	-.01	-.05 (.09)	-.06
Social class	-.05 (.10)	-.05	-.20 (.09)*	-.21	-1.20 (.58)*	-.18
Exposed in H.S.	.52 (.20)**	.22	.07 (.17)	.01	-.47 (1.16)	-.04
Female	.44 (.18)*	.19	.15 (.16)	.12	1.07 (1.10)	.08
Total R^2		.26		.11		.15

Note. *** $p < .001$. Frequency indicates frequency of physical violence exposure. Exposed in H.S. indicates exposed to physical violence or not in high school, female indicates gender.

Table 8. *Bivariate correlations between coping strategies and exposure to domestic violence, peer relationship variables, and internalizing problems.*

	Disclosed exposure to close friend	Avoided home by spending time with friends	Talked to friend about violence and abuse
Frequency	.09	-.03	.01
Exposure to coercive control	.18 ⁺	.02	.19 ⁺
Bullying victimization	.09	.04	.09 ⁺
Bullying perpetration	.05	.12	.20
Friendship quality	.17	.20 ⁺	.12
Social anxiety	.22 [*]	.17	.14
Depression	-.05	.01	.02
PTSD symptoms	.05	-.06	.03

Note. ⁺ $p < .10$. ^{*} $p < .05$. Frequency indicates frequency of physical violence exposure.

Table 9. Three-way interaction between coercive control exposure, friendship quality, and disclosure of exposure experiences to friend and their association with internalizing problems during young adulthood.

	Social Anxiety		Depression		PTSD Symptoms	
	B (SE)	β	B (SE)	β	B (SE)	β
Frequency	-.35 (.15)*	-.29	.01 (.12)	.01	-1.18 (.87)	.01
Exposure to coercive control	.08 (.02)***	.54	.02 (.02)	.20	.40 (.13)***	.51
Friendship quality	.07 (.13)	.06	-.09 (.11)	-.11	.40 (.75)	.02
Disclosed	.40 (.27)	.17	-.14 (.23)	-.08	.40 (1.59)	.05
Exposure to coercive control X friendship quality	-.05 (.02)*	-.27	.00 (.16)	-.04	-.05 (.11)	-.08
Exposure to coercive control X disclosed	-.05 (.04)	-.13	-.05 (.04)	-.17	-.18 (.25)	-.12
Friendship quality X disclosed	-.08 (.23)	-.04	.03 (.20)	.02	1.67 (1.36)	.15
Exposure to coercive control X friendship quality X disclosed	-.06 (.04)	-.17	.02 (.04)	.07	-.17 (.25)	-.09
Social class	-.08 (.12)	-.07	-.27 (.10)*	-.29	-.86 (.69)	-.16
Exposed in H.S.	.56 (.21)*	.24	.06 (.18)	.04	-.34 (1.27)	-.05
Female	.51 (.24)*	.21	.32 (.21)	.17	.89 (1.44)	.06
Total R^2		.36		.15		.20

Note. ** $p < .01$. *** $p < .001$. Frequency indicates frequency of physical violence exposure. Exposed in H.S. indicates exposed to physical violence or not in high school, female indicates gender. Disclosed indicates if participants disclosed to a friend or not.

Table 10. *Three-way interaction between coercive control exposure, friendship quality, and avoiding home to spend time with friend and their association with internalizing problems during young adulthood.*

	Social Anxiety		Depression		PTSD Symptoms	
	B (SE)	β	B (SE)	β	B (SE)	β
Frequency	-.41 (.15)**	-.34	-.01 (.12)	-.01	-1.47 (.85)	-.22
Exposure to coercive control	.09 (.02)***	.58	.02 (.02)	.17	.43 (.12)***	.52
Friendship quality	.06 (.12)	.05	-.07 (.11)	-.08	.36 (.73)	.06
Avoided	.28 (.25)	.13	.10 (.21)	.06	-.44 (1.46)	-.04
Exposure to coercive control X friendship quality	-.06 (.02)*	-.35	.00 (.02)	-.03	-.11 (.11)	-.12
Exposure to coercive control X avoided	-.07 (.03)*	-.25	-.03 (.03)	-.15	-.12 (.20)	-.08
Friendship quality X avoided	.32 (.24)	.15	.29 (.20)	.17	2.18 (1.40)	.18
Exposure to coercive control X friendship quality X avoided	.01 (.04)	.02	.00 (.03)	-.01	-.15 (.21)	-.09
Social class	-.06 (.12)	-.05	-.25 (.10)*	-.29	-.82 (.69)	-.13
Exposed in H.S.	.51 (.22)*	.23	.07 (.18)	.04	-.20 (1.26)	-.02
Female	.44 (.24)	.18	.30 (.21)*	.16	1.31 (1.43)	.10
Total R^2		.34		.15		.21

Note. ** $p < .01$. *** $p < .001$. Frequency indicates frequency of physical violence exposure. Exposed in H.S. indicates exposed to physical violence or not in high school, female indicates gender. Avoided indicates if the participant avoided home by spending time with friends or not.

Table 11. *Three way interaction between coercive control exposure, friendship quality, and talking to friend about violence and abuse and their association with internalizing problems during young adulthood.*

	Social Anxiety		Depression		PTSD Symptoms	
	B (SE)	β	B (SE)	β	B (SE)	β
Frequency	-.41 (.15)**	-.29	.02 (.13)	.02	-1.25 (.84)	-.19
Exposure to coercive control	.09 (.02)***	.61	.02 (.02)	.15	.42 (.12)***	.51
Friendship quality	.08 (.13)	.07	-.03 (.11)	-.04	.22 (.71)	.04
Talked	.01 (.24)	.02	-.04 (.20)	-.02	-.68 (1.36)	-.06
Exposure to coercive control X friendship quality	-.06 (.02)***	-.36	-.01 (.02)	-.06	-.10 (.10)	-.11
Exposure to coercive control X talked	-.05 (.04)	-.19	-.01 (.03)	-.06	-.39 (.20)*	-.25
Friendship quality X talked	.09 (.25)	.05	.27 (.21)	.15	2.80 (1.40)*	.22
Exposure to coercive control X friendship quality X talked	.01 (.04)	.04	.02 (.03)	.07	.35 (.21)	.21
Social class	-.03 (.12)	-.03	-.25 (.10)*	-.27	-.70 (.66)	-.11
Exposed in H.S.	.52 (.22)*	.23	.04 (.18)	.02	-.44 (1.22)	-.04
Female	.54 (.25)*	.21	.31 (.21)*	.16	1.63 (1.41)	.12
Total R^2		.31		.15		.27

Note. * $p < .05$. *** $p < .001$. Frequency indicates frequency of physical violence exposure. Exposed in H.S. indicates exposed to physical violence or not in high school, female indicates gender. Talked indicates if participants talked to a friend about the violence or not.

Figure 1. *Friendship quality moderating the relationship between exposure to coercive control and social anxiety during young adulthood.*

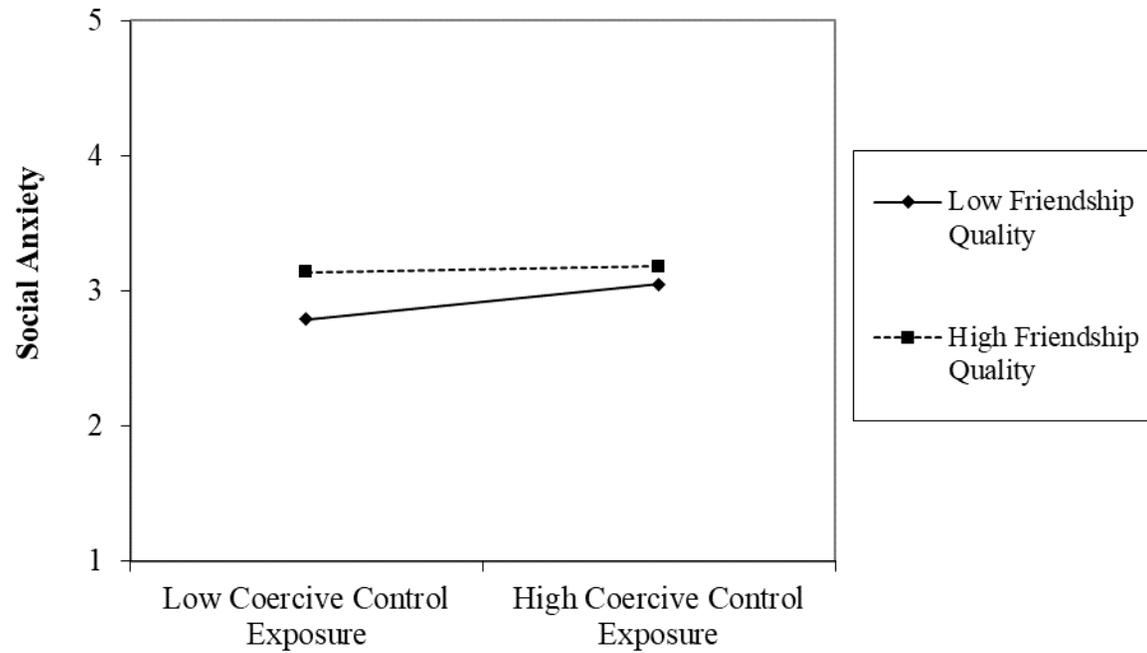


Figure 2. *Avoiding home by spending time with friends as a moderator of the association between exposure to coercive control and social anxiety during young adulthood.*

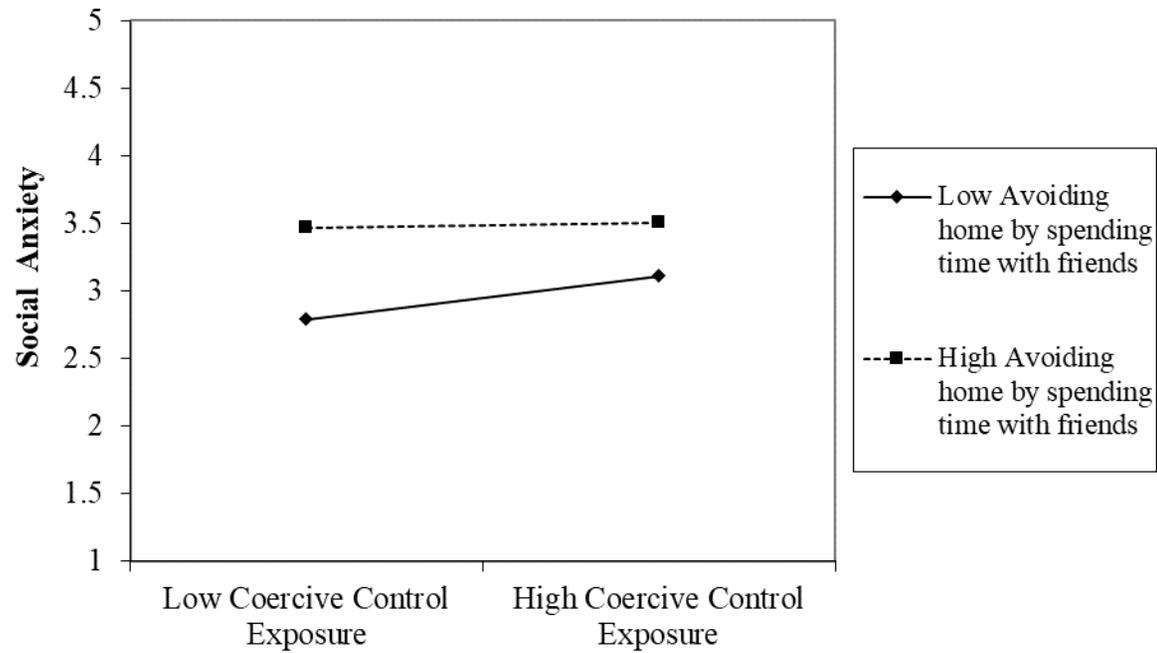


Figure 3. *Talking to a friend about the violence and abuse as a moderator in the association between exposure to coercive control and PTSD symptoms during young adulthood.*

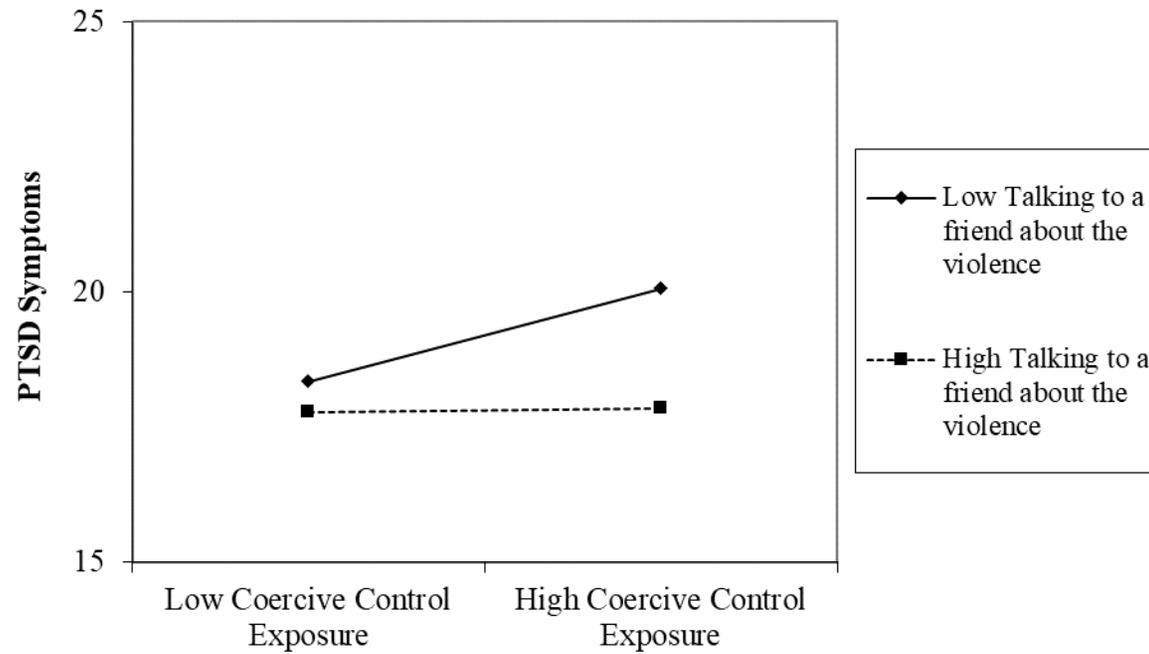


Figure 4. *Two-way interaction between friendship quality and talking to a friend about the violence predicting PTSD symptoms during young adulthood.*

