THE PROXIMAL CONTEXT OF INTIMATE PARTNER CONFLICT OVER TIME

by

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DISSERTATION ABSTRACT

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The primary purpose of this study was to explore how intimate partner conflict changes over time. Patterns of conflict were explored based on the presence of substance use, name calling/threats, physical violence, jealousy, and conflict topic. Groups, or classes of couples, were identified based on conflict patterns. Next, the effects of the covariates on group membership were examined. Age, relationship length, intimate partner violence, substance use, and depression were investigated as covariates.

Participants in this study included young couples from the Oregon Youth Study-Couples Study that included men who were at risk for delinquency and their women partners. The men and their partners were assessed at three waves between the ages of 25 and 31. Proximal contextual aspects of conflict, including substance use, threats and yelling, physical violence, and jealousy, were explored at three time points. Results suggest that conflict patterns change over time based on age and stage of relationship. Further, conflict patterns differ for men and women and the covariates predicted classes for men but were not predictive for women.

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CHAPTER I

LITERATURE REVIEW

Intimate Partner Violence (IPV) is a public health problem that results in negative outcomes and impacts hundreds of thousands of individuals and families (Desmaris et al., 2012). Intimate Partner Violence can include a continuum of abuse that includes physical abuse, sexual abuse, threat of physical or sexual abuse, sexual coercion, psychological/emotional abuse, denial of economic resources and access to vocational opportunities, spiritual abuse, harassment, assault, or torture (Chronister & Aldarondo, 2011). The focus of this study is on physical abuse in opposite-sex couples. Approximately one in four women (23.1%) and one in five men (19.3%) has experienced physical violence in an intimate relationship (Desmaris et al., 2012). Further, Almost 2.0 million injuries and 1,300 deaths occur every year due to IPV (Center for Disease Control and Prevention, 2003). There is evidence that IPV is highest during adolescence and young adulthood and decreases over time (O'Leary, 1999, Fritz and O'Leary, 2004; Kim, Laurent, Capaldi, & Feingold, 2008; Shortt et al., 2011). Given the rates and devastating public and social consequences of IPV, it is important to understand the characteristics of conflict. One limitation of work examining IPV has been the failure to adequately address the contexts of IPV. Therefore, this study will advance the field by focusing on the contextual aspects of conflicts by examining young men and women's descriptions of circumstances surrounding their worst fight within the past year.

IPV is a problem that occurs over the life span, beginning as early as adolescence when young people start their first romantic relationships and for some women, continuing throughout their lives. Prevalence rates of IPV change throughout

development, and are higher at young ages while decreasing with age (Kim, Laurent, Capaldi, & Feingold, 2008; Shortt et al., 2011; Breiding, Black, Ryan, 2008). Rates of physical aggression by men have been shown to increase from ages 15-25 (O'Leary, 1999, Fritz and O'Leary, 2004; Thompson et al., 2006), peak around age 25, and sharply decline to about 35 years (O'Leary, 1999, Fritz and O'Leary, 2004). Women less than 26 years of age have been found to be more than twice as likely to be abused compared to women between 26 and 50 years (Walton-Moss, Manganello, Frye, & Campbell, 2005). Shortt et al. (2011) found 25% of the men and 33% of the women demonstrated physical aggression toward partners in their early 30s. Prevalence rates have been shown to vary based on sample type, measurement time frame, and study location (Desmarais, 2012). This variability in prevalence rates demonstrates diversity in the experience of IPV and the need for gender-inclusive studies (Desmarais, 2012). Of particular relevance to this study is the finding that there are fewer gender differences for violence perpetrated among young adult intimate partners than for adult couples (Hamby, 2009). However, little is known about the changes that occur in the 20s and 30s that contribute to the changes in the patterns and prevalence of IPV. It may be that conflict in relationships change throughout this developmental period, but little research has attended to these changes over the 20's. This study will investigate how conflict changes throughout this developmental period. Both partner's reports will be included in this analyses to shed more light on the diversity of experience of conflict between men and women.

Since rates of physical aggression peak around age 25 and decline to about 35 years (O'Leary, 1999, Fritz and O'Leary, 2004) it is important to understand this stage of life. The formation and negotiation of romantic relationships is an important

developmental task that begins during emerging adulthood (Arnett, 2006) and has lifelong implications for social and emotional adjustment. Conflict management becomes critical as individuals are considering long-term commitments to partners and negotiating relationship issues (Laurent, Kim, & Capaldi, 2008). Normative developmental patterns from adolescence to young adulthood show increases in negotiation and decreased use of coercion and disengagement/minimizing. However, couples' conflict strategies may vary based each partners' conflict strategy (Laurent et al., 2008) and based on contextual factors. Further, tension exists between each partner's needs for autonomy and support while balancing their individual needs and their partner's needs (Selman et al., 1986). Therefore, understanding how conflict changes in association with contextual factors supports social and emotional adjustment.

Intimate partner violence appears to be related to relationship length and type in addition to age. Research findings indicate that more committed couples, such as cohabitating and married partners, experience more IPV (Kim et al., 2008; Wiersma et al., 2010). Cohabitating couples are more likely to engage in IPV than married (Magdol, Moffitt, Caspi, & Silva, 1998; Caetano et al., 2005) or dating couples (Herrera, Wiersma, & Cleveland, 2008). Victimization for cohabiting women is associated with younger age, women's unemployment, past partner violence, childlessness, and depressive symptoms (Brownridge and Halli, 2002). Separated or divorced women are most vulnerable to IPV (O'Donnell, Smith, & Madison, 2002; Neff, Holamon, & Schluter, 1995; Walton-Moss et al., 2005); while women who were never married have the lowest rates of IPV (Sorenson & Telles, 1991). In summary, there is evidence that relationship type is related to IPV

with cohabitating couples more likely to engage in IPV than married or dating couples and women who are separated are most vulnerable to IPV.

Researchers have demonstrated that violence becomes more likely the longer an individual is in a relationship (Wiersma et al., 2010). Stets and Pirog-Good (1987) found that adding 1 month to the length of a romantic relationship increased the probability of victimization of violence by 8%. Even though married individuals are less at risk than cohabitating individuals overall, relationship length and risk background may override relationship status for young adults. Therefore, relationship features and age must be considered in order to understand how conflict changes over time.

In addition to the likelihood of violence increasing with relationship length, more committed relationships may be less likely to end when violence is present. Marriage may come with stressors that may not be countered by a greater commitment and may contribute to an increased risk of violence. Further, the commitment may be a barrier to leaving a violent relationship and deter committed partners from leaving a difficult situation (Wiersma et al., 2010). Another trend noted based on relationship length is that couples in the early stages of relationships may be more prone to jealousy whereas relationships in later stages may have lower levels of relationship satisfaction (Capaldi & Kim, 2007). Since the quality and stage of the relationship may be as important as relationship category for violence (Wilkinson & Hamerschlag, 2005), relationships at various stages will be included and the length of the relationship and relationship satisfaction will be considered in this study.

Another factor that influences IPV trajectories is a change in partner (Shortt et al., 2012). Shortt et al. (2012) found that men in their 20s showed continuity in aggression

toward partners when they stayed with the same partner over time, but when they changed partners their IPV was likely to change, and changed in the direction of the level of IPV of the new partner. This finding highlights the importance of examining occasions of couple's conflict to understand IPV. Also the stability of IPV with the same partner indicates the importance of prevention and intervention to offset relationship patterns that may contribute to IPV (Shortt et al., 2011). Interaction patterns may be established in the early stages of relationships. Engaging in physical aggression and negative interaction patterns early in relationships may establish destructive patterns that are difficult to change. Therefore, increasing awareness about the negative effects of aggression and aggressive interaction patterns on relationship satisfaction and individual wellbeing is important so risk is not minimized and changes can be made earlier (Shortt, Capaldi, Kim, & Owen, 2006). It is necessary to investigate the proximal contextual factors related to conflict to support such efforts.

Contextual Factors Related to Conflict

Various models have been proposed to account for the context of conflict. Winstock (2007) proposed the Integrative and Structural Model of Violence (ISMV) that accounts for socio-cultural, relational, and situational context. Capaldi, Shortt, and Kim (2005) proposed the Dynamic Developmental Systems (DDS) model to account for interaction in terms of individual developmental history, age, relationship stage and the developmental characteristics of the relationship. The DDS integrates the interactional perspective to account for the each partner's roles in shaping behavior and the course of the relationship. Intersecting systems (e.g., biological, psychological, and social) that develop over time are accounted for and proximal contextual factors (e.g., substance use

and mental health) are considered. In short, the DDS understanding of IPV as an interactional pattern between the intimate partners that is sensitive to developmental characteristics and behaviors of each partner and proximal contextual factors can be used to interpret the stability and change of IPV.

Despite, the models that attend to context, the situational aspects of violence have received limited research attention (Winstock, 2007). Therefore, it is important to understand better both proximal and distal contextual factors related to conflict in order to help decrease violence and to intervene in the broader impact of IPV. For instance, IPV has been associated with negative mental health outcomes for both men and women. For men, IPV is associated with disruptive behavior disorders and substance use disorders. Women victims of IPV are more likely than women in nonviolent relationships to experience both externalizing and internalizing disorders, particularly depression and substance abuse (Stith et al., 2012).

Alcohol abuse and depressive symptoms often co-occur with IPV (Shortt et al., 2011). Men's depression is associated with women's IPV perpetration and women's depression is associated with men's IPV perpetration (Marshall et al., 2011; Kim & Capaldi, 2004).) Additionally, individuals in relationships may have similar risk factors due to the tendency for individuals to engage in romantic relationships with partners with similar characteristics (Kim & Capaldi, 2004). Since risk factors seem to impact the stability of IPV, intervention and prevention efforts may need to target risk factors (Shortt et al., 2011).

Depression. Depression and marital conflict have been shown to have a reciprocal association. Depression is associated with negativity, tension, fewer positive

conflict resolution strategies, and less problem solving during conflict between couples (Marshall et al., 2011; McCabe & Gotlib) which may contribute to more frequent and increased levels of conflict. This connection between marital conflict and depression seems to be particularly strong for women (Whisman, Uebelacker, & Weinstock, 2004; Laurent, Kim, & Capaldi, 2009; McCabe & Gotlib (1993). However, inconsistent results have been found regarding gender differences in the link between depression and conflict. One factor that may contribute to the inconsistencies in results is the presence of IPV.

An association between depression and IPV perpetration has been recognized among men and women (Marshall et al., 2011; Kim & Capaldi, 2004; Vaeth, Ramisetty-Mikler, & Caetano, 2010; Caetan, Cunradi, 2003). Physical abuse has been shown to be associated with elevated depression in women (Nurius et al., 2003; Stein & Kennedy, 2001; Coker et al., 2002). The association between depressive symptoms and IPV has been found in both men and women over time (Kim and Capaldi, 2004). Women's depressive symptoms are associated with men's and women's IPV perpetration within study time points (Kim and Capaldi, 2004). Furthermore, women's depressive symptoms have been shown to predict increases in men's physical and psychological aggression over time (Kim et al., 2008). Additionally, partners' concurrent symptoms of depression have been found to be a risk factor for men's violence perpetration and women's victimization (Stith, Smith, Penn, Ward, & Tritt, 2003). Even though the association between IPV and elevated depression in men and women has been recognized different forms of IPV (i.e., psychological, sexual) impact individuals in different ways making it difficult to examine distinct and cumulative impacts of IPV (Nurius et al., 2003).

The direct and indirect influences of couples' interactions on depressive symptoms are not well understood. Relationship satisfaction is a key factor that should be considered in theoretical models of IPV and depression. Relationship satisfaction may serve as a mediator between couples' interactions and depressive symptoms or a separate indicator of couple's adjustment. Research findings have shown that marital interactions impact marital adjustment and depression but no connection between marital adjustment and depression (Whitton et al., 2007). Other research does not support the association between communication and depressive symptoms but does support the association between couple's behavior and marital satisfaction (Baucom et al., 2007). A meditational model has been supported when looking specifically at couple's aggression. Men's and women's depressive symptoms are related to aggression through marital adjustment (O'Leary, Slep, & O'Leary, 2007). Laurent, Kim, & Capaldi (2009) found that between-couples differences in women's use of positive and negative behaviors impact on their depressive symptoms over time were mediated by relationship satisfaction. However, within-couple differences in the behaviors directly predicted changes in women's depressive symptoms over time. Depressive symptoms were highest for couples when women's positive engagement was low and withdrawal was high. The association between women's behaviors between ages 20 to 30 years and depression at 30 years highlight the importance of this stage of life for negotiating relationships and adjustment at mid-adulthood (Laurent et al., 2009).

Substsance use. Substance use has been linked to IPV in multiple research studies with the highest rates during young adulthood, however there are gaps in our knowledge. The U.S. Department of Justice (1998) reports two thirds of incidents of IPV

involve alcohol and substance abuse among IPV perpetrators ranges from 40% to 92% (Stith et al., 2012). Perpetrators of IPV are more likely to have problems with drug or alcohol use (Walton-Moss et al., 2005) Further, alcohol consumption and violence has been found to be highest during young adulthood with the highest rates between 21 and 29 years of age (Perkins, 1997).

Even though the association between alcohol use and IPV has been supported in the literature, there are contradictory findings and gaps in our knowledge (Wiersma et al., 2010; Wilkinson & Hamerschlag, 2005). Men's problem drinking has been found to be a distal risk factor for IPV, however there are mixed results regarding drinking at the time of a violent incident as a direct cause of violence (Wilkinson & Hamerschlag, 2005). Therefore, the association of IPV and alcohol use in young adults is a particular area in need of further examination (Wiersma et al., 2010).

The role of alcohol in IPV has been examined as both a distal and proximal factors (Leonard, 1999). Three conceptual models regarding the association between alcohol use and IPV exist: (a) the spurious model, (b) indirect model, and (c) proximal model (Fals-Stewart, 2003; Leonard & Quigley, 1999; Wiersma et al., 2010). The spurious model suggests that the association between alcohol and violence is the result of other factors, such as antisocial personality characteristics, that influence both drinking and aggression. The indirect model posits that conflicts in romantic relationship occur because of long term alcohol misuse or abuse by one or both partners and these conflicts may escalate to the point of violence. Based on this model, the effects of conflict creating behaviors associated with alcohol misuse are associated with IPV, not the direct effects of alcohol.

The proximal effects model states that alcohol intoxication facilitates violence therefore individuals who consume alcohol are more likely to engage in IPV. In this model, the association between intoxication and violence may be mediated by the cognitive thought process or expectancies associated with alcohol (Chermack & Taylor, 1995; Critchlow, 1983; Fals-Stewart, 2003). Multiple factors may explain the association between substance use and IPV, including impaired judgment and decision-making abilities, biological factors, and frontal-lobe impairment. One explanation for the relationship between alcohol and IPV is the disinhibition hypothesis. This hypothesis postulates that in a sober state behavior is inhibited. When people are influenced by alcohol the inhibitions are weakened and impulsive behavior that typically would be restrained are not which can result in inappropriate aggression (Gustafson, 1994). Overall, the proximal effects model is based on the notion that drinking that exceeds a certain threshold of quantity or frequency results in violence. Further, excessive and problems drinking is associated with increased risk of perpetration and victimization in intimate relationships (Wiersma et al., 2010).

Wiersma et al. (2010) identified that these models focus on varying processes to understand the association between drinking and IPV, yet one important limitation is consistent across all models. The models only consider the role of one partner's drinking in the relationship and ignore the potential influence of both partners' drinking on the occurrence of IPV. To address this limitation and further understand the association between alcohol use and IPV, Wiersma et al. (2010) evaluated a fourth model, drinking partnerships. Based on drinking partnership research, different types of drinking partnerships have been identified: congruent or discrepant and light or heavy. These

partnerships can have differential impacts on relationships (Wiersma et al., 2010). The drinking partnerships models incorporates the indirect effects and proximal effects models and considers alcohol misuse behaviors that create conflicts and heavy drinking of one or both partners. The drinking partnership literature uses the following criteria to classify drinking partnerships: (a) typical quantity and frequency of alcohol intake, (b) context in which drinking occurs, and (c) similarities between partners' levels of drinking (Roberts & Leonard, 1998). Based on an examination of dating, cohabitating, and married young adult heterosexual couples, Wiersma et al. (2010) identified four types of drinking partnerships: (a) congruent light and infrequent, (b) discrepant male heavy and frequent, (c) discrepant female heavy and infrequent, and (d) congruent moderate/heavy and frequent. Consideration of drinking patterns proved to be an important couple-level indicator of differences in IPV in young adults. Both across and within couple level differences were present when type of drinking partnership and level of IPV were accounted for. For example, for men who drank more heavily and frequently, married men reported higher levels of minor perpetration and victimization of IPV than men in dating relationships. Within-couple differences were present for married couples in that the frequency and quantity of drinking by husbands was related to severity and direction of reported violence in the relationship. Based on findings that there were gender different in patterns of drinking and levels of IPV, Wiersma et al. (2010) posit that the proximal effects model may be more useful for men's IPV, particularly serious IPV in marriage. Future research on the association between men's problem drinking and IPV in young adult relationships is warranted especially given the potential for decisions in

emerging adulthood to have enduring impact on relationship and drinking (Wiersma et al., 2010).

The impact of drug use on IPV is less well understood than the role of alcohol. Alcohol use has been found to be more of a problem in IPV. It is challenging to understand the role of drug use in IPV because it is often combined with alcohol consumptions (Wilkinson & Hamerschlag, 2005). In addition to the direct impact of substance use on IPV, substance use and IPV may be associated with individual and contextual factors related to both problems. Risk of family of origin, parenting behavior, antisocial behavior, and antisocial peers have been identified as important factors (Feingold et al., 2008). In a study of the association between IPV and substance dependency at age 25-26 years, Feingold et al. (2008) found that antisocial behavior had stronger effects on IPV when considering substance use and antisocial behavior simultaneously. However, the associations between violence and alcohol dependence were best explained by substance use prior to committing violence (Feingold et al., 2008). Therefore, differences in the role of substance use may exist for proximal and more distal influences. Future research is necessary to examine changes in IPV and substance use over time (Feingold et al., 2008) and the role of proximal use.

Jealousy. Jealousy has been shown to be a factor in aggression between partners and it is estimated that sexual jealousy is linked to IPV between 7% and 41% of the time (Barnett, Martinez, & Bluestein, 1995; Wilkinson & Hamerschlag, 2005). Men's jealousy is associated with reported and observed IPV, men's arrests for IPV, and women's injuries from IPV, and is predictive of aggression towards partners (Kerr & Capaldi, 2011). Women who are victims of violence commonly report that jealousy was a critical

motivating factor (Lloyd & Emery, 2000; Wilkinson & Hamerschlag, 2005).In a comparison between violent and nonviolent husbands, violent husbands provided less competent responses to vignettes portraying jealousy (Holtzworth-Munroe & Anglin, 1991). Further, jealous men appear to attribute more negative intentions to women's behavior (Holtzworth-Munroe & Hutchinson, 1993). Women's jealousy has also been shown to play a role in IPV and research findings indicate that women report using physical aggression in response to jealousy more often the men (Harned, 2001).

Based on these findings, jealousy is an important variable when investigating the proximal aspects of conflict. Jealousy plays a role in IPV that may be especially relevant for young couples because of relationship instability and uncertain partner commitment (Capaldi, Kim, & Shortt, 2007). Further, jealousy is negatively correlated with martial satisfaction level (Barnett et al., 1995) and jealousy may be more likely to be present in the context of lower relationship satisfaction, which has been shown to be a risk factor for IPV (Stith & McCollum, 2011). Therefore, investigating the prevalence, gender differences in reporting, and context of jealousy in conflict will further our understanding of the role of jealousy in IPV.

Summary

Couple conflict has been shown to predict the occurrence of IPV for both men and women and is one of the strongest risk factors for aggression toward a partner (Kim, Laurent, Capaldi, & Feingold, 2008; Marshall et al., 2011). However, there is limited research examining the characteristics of conflict, particularly the situational aspects and how conflict changes over time (Wilkinson & Hamerschlag, 2005). Conflict during the 30's is important to understand because it is a time when relationships have stabilized and

assessments may more accurately reflect IPV in these relationships. Further, alcohol abuse and depressive symptoms often co-occur with IPV so it is important to further our understanding of their impact on conflict over time (Shortt et al., 2011).

Study Purpose

This study used data collected from couples that examines their patterns of conflict over the last year. Topics of conflict (i.e., chores/responsibilities, money, trust issues) were based on participants' coded responses to the prompt "what is the worst argument or fight you have had with each other this past year." First, patterns of conflict - namely substance use, threats and yelling, physical violence, jealousy, and resolution- and conflict topics were explored at three time points. Then changes in class membership over time were examined. The first goal of this study was to: 1) examine patterns of conflict and identify whether consistent patterns emerge in certain groups of couples (see Figure 1) and 2): examine changes in group membership over time. Patterns of conflict were based on whether substance use, name calling/threats, physical violence, and jealousy were present during the conflict, as well as if the conflict is resolved, and the conflict topic.

The second research question involved examining whether key risk factors predicted the likelihood that couples stayed in a defined group over time (see Figure 2). The following covariates were explored separately: age, relationship length, IPV, substance use, and depression. It was hypothesized that (1) IPV would predict membership in a class where substance use, threats and yelling, and jealousy were present; (2) when substance use was endorsed by one partner, he or she would be more likely to be in a class with physical violence, threats and yelling, and jealousy; and (3)

when depression was endorsed by one partner, he or she would be more likely to be in a class with physical involvement, threats and yelling, and jealousy.

The third research question examined the effect of the covariates on class membership change over time (see Figure 3). The same covariates described in the previous research questions, age, relationship length, IPV, substance use, and depression were used to explore change over time. It was hypothesized that change in substance use, the presence of IPV, or depression would predict change in class membership.

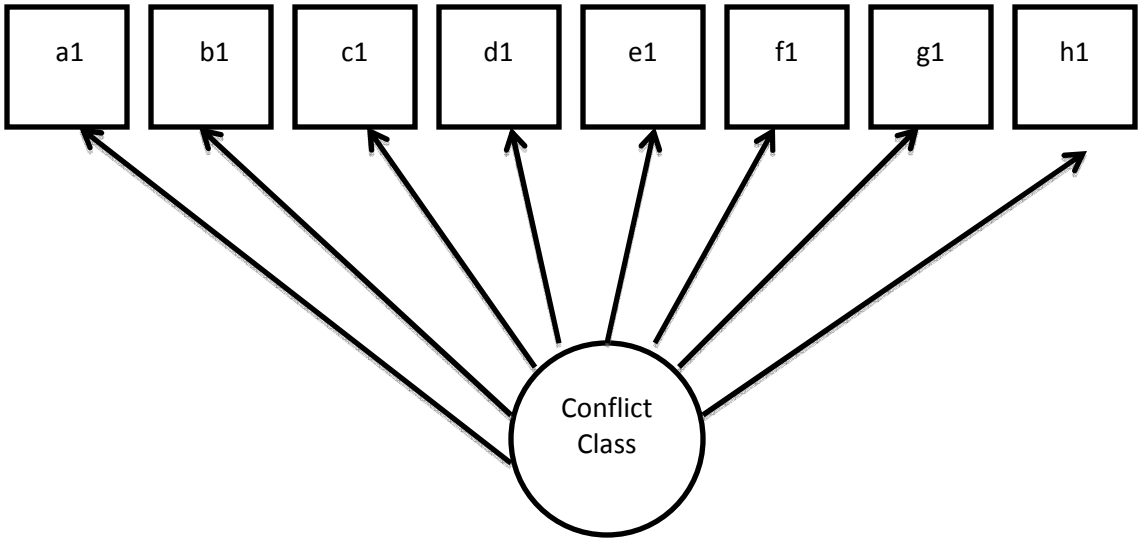


Figure 1. Classes of couples based on conflict

Note. a1 = substance use. b1 = threats and yelling. c1 = physical violence. d1 = jealousy. e1 = conflict resolution. f1 = conflict topic: interpersonal. g1 = conflict topic: relationships with others. h1 = conflict topic: resources and responsibilities.

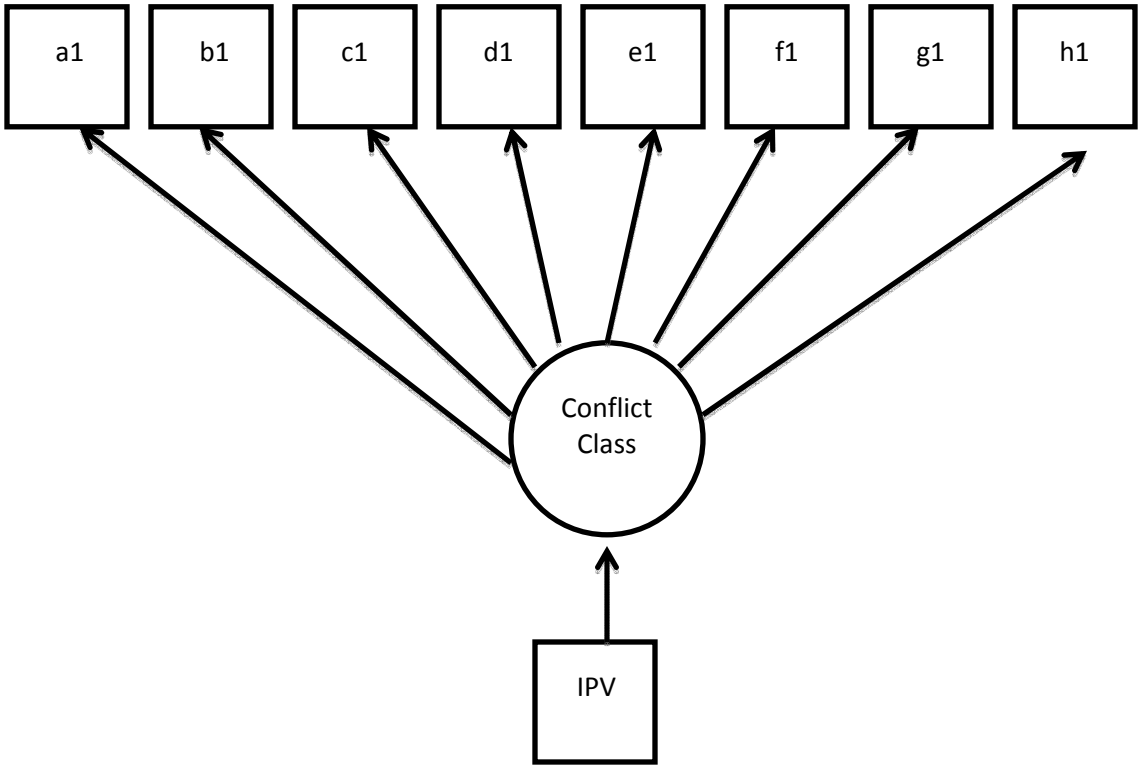


Figure 2. Effect of IPV on class membership

Note. a1 = substance use. b1 = threats and yelling. c1 = physical violence. d1 = jealousy. e1 = conflict resolution. f1 = conflict topic: interpersonal. g1 = conflict topic: relationships with others. h1 = conflict topic: resources and responsibilities.

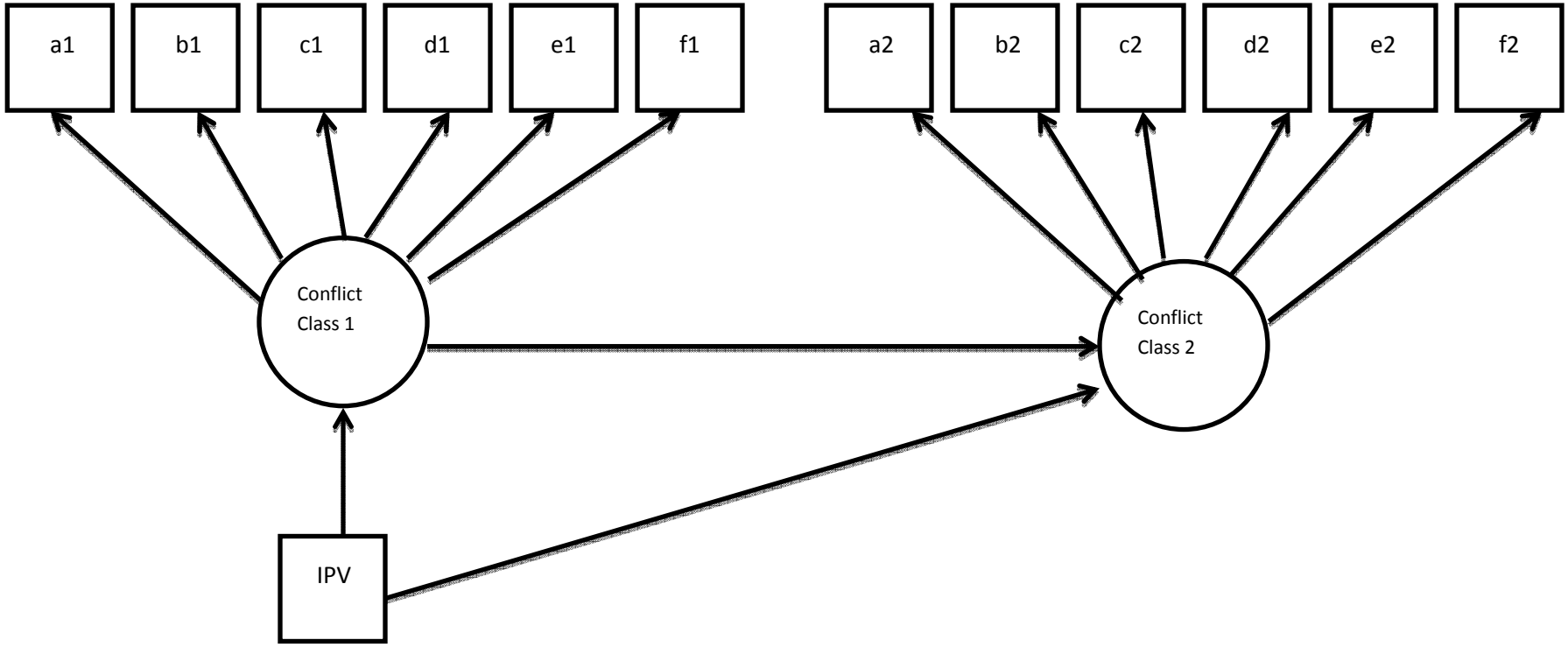


Figure 3. Effect of IPV on class membership change between time 4 and time 5.

Note. a1 = substance use. b1 = threats and yelling. c1 = physical violence. d1 = jealousy. e1 = conflict resolution. f1 = conflict topic: interpersonal. g1 = conflict topic: relationships with others.

CHAPTER II

METHODOLOGY

Participants

The current study involved data from the Oregon Youth Study (OYS), a longitudinal study of men who were considered at risk for delinquency in childhood. This study was funded by NIMH to Dr. Deborah Capaldi at the Oregon Social Learning Center (Grant # R01 MH 37940). A community-based sample of 206 men who were recruited at ages 9–10 years from fourth-grade classrooms from schools located in communities of higher crime-rate neighborhoods in a medium-size metropolitan area in the Pacific Northwest. The men were from families that were predominately Euro-American (90%) and 75% working class (according to the social status index; Hollingshead 1975). The OYS participants were assessed annually, with retention rates at each time point of at least 93%. The OYS-Couples Study began when the men were aged 17–18 years with six further waves completed at ages 20–23, 23–25, 25–27, 27–29, 29–31, and 31–33 years (see also Shortt et al., 2011). A unique aspect of the OYS study was that the men were followed across relationships with different women partners. Furthermore, some of the women were followed across relationships with different men partners (see also Shortt et al., 2011).

Procedure

These assessments, collected over a 3-year window per cohort, comprised OYS Couples T1. The same strategy was followed for T2. In order to assess the young man's romantic relationships more frequently through young adulthood (and expecting that more young men would be in a relationship), the sampling time frame was shortened to 2

years for T3 to T6. From T2 through T6, participation rates were high, ranging from 73% to 80%. Reasons for nonparticipation were similar at each wave, with the majority being due to not having a partner. For example, at T6, which had an 80% participation rate, 11% had no partner, 5% did not wish to participate, 1% could not be located, 1% were incarcerated throughout the period, and 2% gave other reasons. The present study involved the 88 couples that stayed together over three waves, defined herein as T4 through T6. Participants were between 25 and 31 years of age.

Measures

A summary of all study variables and corresponding measures is provided in Table 1, and copies of the study measures are provided in Appendix A. All assessments were completed by both partners.

Table 1

Summary of Constructs and Measures by Time Point

Construct	Measure
Conflict	
a. Proximal Contextual Aspects of Conflict	The Couples Interview: Fighting and Abuse (Capaldi and Wilson, 1994)
b. Physical assault and injury	Conflict Tactics Scale (CTS2; Straus, Hamby, Boney-McCoy & Sugarman, 1996)
Length of relationship and relationship type	The Couples Interview (Capaldi and Wilson, 1994)
Depressive Symptoms	CES-D Depression Scale (Radloff, 1977)
Alcohol Use	Self-report measure from The Couples Interview (Capaldi and Wilson, 1994)

Conflict.

Fighting and Abuse section from The Couples Interview (Capaldi and Wilson, 1994.). Each partner was asked separately to describe the worst fight they had in the past year. The following questions were used to investigate conflict for the purposes of this study: (a) "Did it involve use of substances (tobacco, alcohol, drugs, etc.) by either of you?" Response options included "yes, mildy (e.g. disagreed about partner smoking) "yes, overuse precipitated fight (i.e., partner, self, other was drinking, using drugs, etc.)" or "no;" (b) "Did it involve things like name calling, yelling, threats, sulking, or refusing to talk, screaming or cursing, or throwing/breaking something, but not at each other;" (c) "Did it involve anything physical like pushing or hitting by either of you?" Response options included "yes, moderate (push, shove, grab, throw something at, slap or hit)" and "yes, severe (kick, bit, hit with fist, hit or try to hit with something, beat up, choke, burn or scald" and "no;" (d) "Who initiated or began the physical part of the fight;" (e) "Was [either partner] hurt or injured at all;" (f) "Did it involve jealousy? Of who; " (g) "Did the fight occur because one or both of you wanted to break up;" (h) "What happened in the end;" and (i) "Did it involve any delinquent or criminal behavior [including status offenses, running away, selling drugs: NOT personal substance use]?"

Conflict Tactics Scales-Original and Revised version. (Original version: Straus, 1979; Revised version: Straus et al., 1996). This widely used instrument measures both the extent to which partners engage in psychological and physical attacks on each other and also their use of reasoning or negotiation to deal with conflicts. The original CTS included three subscales: reasoning, physical aggressions and verbal aggression. Alpha estimates of internal consistency were .42 to .76 for the reasoning subscale, .62 to .88 for

the verbal violence subscale, and .42 to .96 for the physical violence subscale. The original version of the CTS and two new scales from the revised CTS (injury scale and sexual coercion scale) were administered. The alpha reliability coefficient for the sexual coercion scale is .87 ($p < .001$) and equals .95 ($p < .001$) for the injury scale.

Length of relationship and relationship type. In the couples' interview, both partners reported on their length of relationship and relationship type. Couples reported on whether they were dating, cohabiting, or married. Exploratory analyses established that these relationship types showed a linear association with the outcome of relationship dissolution, with dating couples the most likely and married couples the least likely to separate (see also Shortt et al., 2006).

Depressive symptoms. The Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977) was used to measure depressive symptoms. The CES-D is a 20-item scale that assesses the number of days in the past week that the subject has suffered from depressive symptoms. The authors reported test-retest reliabilities ranging from .32 for 12 months to .67 for 4 weeks. Split-half correlations were .85 for patient groups and .77 for normal groups. Coefficient alphas and Spearman-Brown coefficients were .90 or above for both normal subjects and patients. Radloff (1977) details scale construction and validation procedures.

Alcohol use. A self-report measure of alcohol use was used to assess drinking over the course of the past year. Respondents were asked "Have you had beer, wine or hard liquor such as vodka, whiskey, rum, gin or scotch, even a sip, in the last year?" If respondents answered yes, they were asked follow up questions about each drink individually including frequency and quantity.

Coding themes of conflict. The coding worksheet and coding manual are shown in Appendix B. As part of the Couples Interview each partner was asked "what is the worst argument or fight you have had with each other this past year" with the following probes: "what was it about," "what made it so bad," and "what happened in the end." Partners' responses at each time point were coded based on predetermined categories of conflict themes. The coding procedure was developed by randomly reviewing responses to identify common themes. A comprehensive list of categories was developed based on these themes. Then coders were trained using these categories. The development of the coding process was an iterative process where categories were created then adjusted with input from the trained coders before initiating the final coding procedure.

Research Assistants employed by the Oregon Social Learning Center (OSLC) were trained for coding. Training included: 1) orientation and directions about how to use the coding form, 2) an overview of examples including straightforward and more complicated responses, and 3) practice coding with comparison between coders to address questions and discrepancies. All questionnaires were stored at OSLC. All coding was de-identified and stored on a secure hard drive at OSLC.

Coders were trained to code both partners' responses at each time point. Responses could be coded with up to three themes to account for complexity of the description of the fight. Therefore, responses had between 1 and 3 coded themes. Each response was coded two times by independent coders to increase reliability. Discrepancies in coding were resolved by a separate coder.

The critical incident technique in survey research informed the decision to ask partners to describe a fight based on the prompt "what is the worst argument or fight you

have had with each other this past year?" The critical incident technique is a qualitative interview procedure used to investigate significant events from the perspective of the individual. The events, the way they are managed, and perception of outcomes are identified by the respondents. Content analysis of the stories can then be completed after the critical incidents have been recorded. Through this process, data categories that summarize and describe the incidents can be created. One of the benefits is that data are collected from the respondent's perspective and in his or her words. Therefore, respondents are able to determine which incidents are most relevant to them, allowing the context to be developed from their perspective (Gremier, 2004). In this study both partners responded to this prompt, therefore separate critical incident reports are available for both men and women.

Data Analysis

Preliminary analyses. All preliminary analyses, including data screening and examination of missing data, were conducted using Stata or SPSS. Descriptive statistics including mean, standard deviation, and frequency distributions were examined for all study variables. Tolerance values (greater than .20), extreme skew and kurtosis, and influential case outliers (within the limits of +/−2.0) were examined prior to main study analyses (Schumacker & Lomax, 2004). Based on recommendations by Kline (2005), standardized skew index values between −3.0 and +3.0 were considered to be within normal limits, and a standardized kurtosis index of −10.0 to +10.0 was used to evaluate normality. Mitchell's (1993) guidelines were used to estimate sample size and ensure statistical power by including 10 to 20 times as many cases as observed variables. This proposed study used an extant data set including 3 time points with between 119 and 170

couples at each time point and seven variables.

First, a cross-sectional Latent Class Analysis (LCA) to explore the number of classes (conflict types) within each of the 3 waves was used to identify classes of couples based on patterns of conflict. The number of conflict types was not determined a priori; instead profiles of conflict types were allowed to arise empirically from the data. Four criteria were used to determine the number of latent classes (Muthen & Muthen, 2000; Nagin, 2005). First, a solution with *k* classes should result in improvement of model fit compared with a solution with *k* -1 classes, indicated by a decrease of the Bayesian information criterion (BIC; Schwarz, 1978). Second, adding an additional class should lead to a significant increase of fit, as indicated by the bootstrap likelihood ratio test (BLRT; Nylund, Asparouhov, & Muthen, 2007). Third, if, while evaluating the content of the classes in the various solutions, an additional class in a solution with *k* classes was found to be a slight variation of a class already found in a solution with *k*-1 classes, then the more parsimonious solution will be chosen. Fourth, in order to make analyses of transitions between classes feasible, each class had to represent at least 10% of the sample (see also Speece, 1994).

Next, a cross-sectional LCA was used to explore the effect of each covariate on class membership. Each covariate will be investigated separately in relation to the conflict class. Finally, in order to look at change in classes across time a multinomial logistic regression was performed. All analyses were performed using Mplus 7.

CHAPTER III

RESULTS

This chapter describes the study findings. First missing data are presented. Then the results of the coding process are described. Next, descriptive statistics for the outcome variables and covariates for men and women from all of the couples are presented. Then the model estimation results are presented including: LCA; LCA with covariates; and class change over time with multinomial logistic regressions. Descriptive statistics for couples who stayed together are presented with the model estimation results.

Missing Data

All of the models presented in this dissertation were analyzed using the statistical software Mplus 7.1 (Muthén & Muthén, 1998-2007). Estimating LTA models in Mplus allows for missing data on the measured outcomes using Full Information Maximum Likelihood (FIML) estimation (for more on FIML see, for example, Enders & Bandalos, 2001). Multiple imputation techniques, which replace missing outcome and covariate information to preserve sample size, were not used in this study because there was very little missing data. As a result, in both the cross-sectional and longitudinal models used in this dissertation, individuals were only eliminated from the analysis if they were missing all outcomes. Of the 88 couples who stayed together across all three time points, 86 men and 87 women had all the covariates and at least one wave of outcome variables. There are slight differences in sample size in the LCA and multinomial logistic regression. The sample for the LCAs included 87 women and 86 men, whereas the sample for the multinomial logistic regression included 83 women and 82 men due to missing covariates

across time points; if a participant was missing a covariate they were removed from the analysis. Table 2 shows the missing data per variable.

Table 2

Missing Data for Predictor and Outcome Variables for Men and Women

Variable	Couples Who Stayed together						All couples					
	Men			Women			Men			Women		
Time	4	5	6	4	5	6	4	5	6	4	5	6
	88 total						206 total					
Substance Use, Threats and Yelling, and Physical Aggression	10	11	9	11	6	7	69	76	63	60	65	56
Jealousy	10	11	9	11	6	8	69	76	63	60	65	57
Resolution	10	11	9	11	7	8	69	76	63	60	66	57
Theme of Conflict	10	11	9	10	6	7	68	77	63	59	65	56
CTS	10	11	9	10	6	7	45	47	44	45	48	44
Depressive Symptoms	10	11	9	10	6	7	46	47	59	45	48	58
Alcohol	10	11	9	10	6	7	46	47	44	45	48	44
Marijuana	10	11	9	10	6	7	46	47	44	46	48	44

Note. Time is the point of assessment. Age ranges by time are based on the men's age. Time 4 = 25–27 years; Time 5 = 27–29 years; Time 6 = 29–31 years. Missing data for Theme of Conflict refers responses to "what is the worst argument or fight you have had with each other this past year." Missing data for CTS, Depressive Symptoms, Alcohol,

and Marijuana reflect the number of participants who did not complete the individual measures. Missing data is presented separately for Couples Who Stayed Together across Times 4-6 and all couples.

Coding

The original 21 coded themes were consolidated into four broader categories in order to decrease the number of variables for statistical analyses. Coding was completed on the entire sample including couples who did not stay together. The entire sample was coded to facilitate comparison of the themes between the couples who stayed together and all couples. Therefore, the theme consolidation process was based on responses from all couples. The responses for each theme, prior to theme consolidation, are presented in Table 3. The numbers in that table are percentages of people that endorsed each theme based on responses the binary variables (0 or 1).

Table 3

Responses for Qualitative Report of Themes for Men and Women

	Couples who stayed together						All couples					
	Men			Women			Men			Women		
	4	5	6	4	5	6	4	5	6	4	5	6
Can't remember/not specified	5.1	2.6	1.2	11.4	1.2	2.4	4.3	1.6	1.4	8.8	2.1	1.3
Jealousy	1.3	3.9	1.2	2.5	1.2	2.4	2.9	3.9	1.4	3.4	2.1	5.3
Ex-partners	0	0	1.2	2.5	0	1.2	2.2	3.9	4.9	8.2	3.5	3.3
Chores/Responsibilities	6.4	11.7	7.3	8.9	8.5	7.3	8.0	7.8	8.4	8.2	6.4	8.7
Friends	6.4	3.9	1.2	2.5	3.7	1.2	7.2	3.9	4.2	2.0	2.8	2.0
Lack of love, commit, caring	0	2.6	2.4	1.3	4.9	1.2	1.4	3.1	4.2	2.0	7.1	2.0
Out and wanted to leave	0	0	0	0	0	1.2	0	0	0	0	0.7	1.3

Breakup/separation	0	0	3.7	2.5	6.8	3.7	0.7	3.1	4.9	4.1	3.5	2.7
Lying, deceiving, trust	7.7	3.9	2.4	5.1	4.9	1.2	6.5	7.0	4.9	5.4	7.1	1.3
Substance use	3.8	5.2	3.7	5.1	3.7	2.4	4.3	4.7	4.2	4.8	2.8	3.3
Other family members	7.7	10.4	2.4	3.8	22.0	6.1	5.1	8.5	2.8	4.8	13.5	6.0
Money	15.4	14.3	22.0	17.7	15.9	19.5	13.8	11.6	14.7	15.0	10.6	14.0
Work/school	3.8	5.2	8.5	3.8	3.7	3.7	5.1	5.4	7	3.4	5.7	4.0
Children	2.6	13.0	9.8	8.9	3.7	12.2	4.3	12.4	9.1	6.1	5.7	14.0
Plans/decisions	15.4	10.4	15.9	5.1	7.3	18.3	10.1	10.1	10.5	6.1	9.9	14.0
Time spent together	6.4	2.6	6.1	0	7.3	9.8	5.8	3.1	6.3	1.4	5.0	8.7
Inconsiderate behavior	3.8	7.8	6.1	3.8	4.9	3.7	8.0	6.2	6.3	6.1	5.7	3.3
Sex	0	0	0	1.3	1.2	2.4	0	0.8	0	2.0	0.7	1.3
Interpersonal conflict	6.4	11.7	3.7	5.1	13.4	4.9	8.0	12.4	4.2	6.1	10.6	4.0
Unskilled behavior	9.0	10.4	2.4	8.9	7.3	1.2	8.0	10.1	5.6	7.5	6.4	4.0
Other	10.3	7.8	7.3	7.6	6.1	2.4	7.2	6.2	6.3	5.4	7.1	4.0
Communication Problems	1.3	0	2.4	2.3	1.2	0	0.7	0	1.4	1.4	2.1	0

The final four theme categories were: 1) Interpersonal, 2) Relationships with Others, 3) Resources and Responsibilities, and 4) Other. The means for each consolidated theme are presented in Table 3. The *Interpersonal* category included the themes of: lack of love, commitment, caring, incompatibility; breakup/separation; lying, deceiving, trust, cheating; amount of time spent together; inconsiderate behavior (i.e., staying out too late and/or not calling); sex; and interpersonal conflict (i.e., nagging, resentful, got on each other's nerves, not getting along in general).

The *Relationships with Others* category included the themes of: jealousy; ex-partners; friends; and other family members. The *Resources and Responsibilities* category included themes of: chores/ responsibilities; money; work, school; and children (e.g., how to parent, discipline). The *Other* category included themes of: can't remember what fight about, not specified; out somewhere and one person wanted to leave; plans/ one partner's desire to do something; unskilled behavior (i.e., s/he was rude, said demeaning things, made a poor decision like bringing a dog home without discussing it first); and substance use.

Descriptive Statistics

The demographic information is based on male report at Time 4, unless otherwise indicated. For the 88 couples who stayed together at all three time points, the average age at Time 4 for men was 26.03 years (*SD*=0.58) and for women was 24.85 (*SD*=4.00). The average age for all couples at Time 4 for men was 26.15 years (*SD*=0.61) and for women was 24.89 (*SD*=4.04). At Time 4, 58% of the couples that stayed together were married and 25% of couples that did not stay together were married. Couples that stayed together were married for 34.59 (*SD*=24.94) months and couples that did not stay together were married for 48.59 (*SD*=28.59) months. The percentage of couples who were married was statistically significantly different for the couples who did and did not stay together, $c^2(1, N = 161) = 22.110, p = 0.00$. The number of months couples were married did not differ by group $F(1, 68) = 3.733, p = 0.06$. Forty-eight percent of the couples that stayed together had children and 42% of the couples that did not stay together had children. The percentage of participants that had children did not differ by group, $c^2(1, N = 161) = 0.751, p = 0.41$. There were no statistically significant differences in race, education

level, current employment, or receipt of financial aid (e.g., welfare, food stamps, etc.) for couples that did and did not stay together. Descriptive statistics for the aforementioned variables for couples that did and did not stay together are presented in Table 4.

Table 4

Descriptive Statistics in Percentiles

	Couples that stayed together		Couples that did not stay together	
	Men	Women	Men	Women
Race				
White	92.0	84.1	86.3	80.8
Black	1.10		5.50	0.0
American Indian	1.10	5.70	1.40	5.50
Mexican American	0.0	1.10	1.40	5.50
Asian	0.0	1.10	0.0	1.40
Other	5.7	8.0	5.50	6.80
Employment				
Full Time	80.7	46.6	74.0	49.3
Part Time	17.0	23.9	24.7	20.5
Not Employed	2.30	29.5	1.4	30.1
Received Financial Aid	13.8	33.0	9.60	42.5

Descriptive statistics for the measured variables for all couples are presented in Tables 5 and 6.

Several patterns emerged based on an examination of the descriptive statistics of the men and women from all of the couples. For both men and women at Times 4 and 5, the Interpersonal category was the most common conflict theme. At Time 6, Resources and Responsibilities was most common for men and Relationships with Others was the most common for women. Substance use during the conflict for either partner, as reported by men, remained relatively stable, approximately 13%, across all time points. Women mentioned substance use more often during the fight at Time 4 (18.49%) than at

Times 5 and 6. Women also mentioned threats and yelling more often. Women also reported more physical aggression and jealousy. However, reported physical aggression and jealousy decreased over time for both men and women. Both men and women frequently endorsed resolution of the conflict.

Based on the descriptive statistics for the covariates for all couples there are several notable findings. Men and women reported similar rates of physical violence and physical violence remained relatively consistent across time. Women had higher levels of depressive symptoms while men reported more marijuana and alcohol use.

Table 5

Means for Outcome Variables for all Couples

	Men			Women		
Time	4	5	6	4	5	6
Interpersonal	30.43	32.59	29.37	27.21	38.30	23.33
Relationships with Others	21.01	27.91	21.68	23.13	27.66	30.00
Resources and Responsibilities	25.36	24.31	30.07	24.49	21.99	26.00
Substance Use (either)	13.87	12.31	13.29	18.49	13.48	14.00
Threats and Yelling	52.55	53.08	48.25	63.01	66.67	51.33
Physical Aggression	9.49	6.92	3.50	13.01	7.80	7.33
Jealousy	23.36	19.23	16.78	27.40	21.28	12.08
Resolution	62.04	56.92	61.54	73.97	63.57	60.40

Note. Men at Time 4, N=138 for themes and 137 for other variables; at Time 5, N=129 for themes and 130 for other variables; at Time 6, N=143. Women at Time 4, N=147 for themes and N=146 for other variables; at Time 5, N= 140 for Resolution and 141 for all other variable; at Time 6, N=149 for Jealousy and Resolution, 150 for all other variables.

Table 6

Descriptive Statistics for Covariates for All Couples

	Men						Women					
	4		5		6		4		5		6	
	Mean (SD)	Range	*Mean (SD)*	Range	*Mean (SD)*	Range	*Mean (SD)*	Range	*Mean (SD)*	Range	*Mean (SD)*	Range
Physical Violence	0.03 (0.11)	0-1	0.02 (0.08)	0-0.58	0.02 (0.08)	0-0.83	0.03 (0.12)	0-1.1	0.039 (0.14)	0-1.5	0.03 (0.09)	0-0.75
Depressive symptoms	0.36 (0.35)	0-1.75	0.36 (0.38)	0-2.20	0.43 (0.47)	0-2.9	0.53 (0.41)	0-1.8	0.59 (0.49)	0-2.15	0.49 (0.51)	0-2.7
Marijuana	47.53 (175.78)	0-1460	38.49 (119.44)	0-999	32.35 (99.30)	0-730	0.57 (1.57)	0-12	0.52 (1.70)	0-16	0.40 (1.37)	0-12
Alcohol	17.56 (11.499)	0-42	16.16 (11.39)	0-42	14.96 (10.75)	0-42	10.20 (8.62)	0-30	10.48 (8.98)	0-42	9.57 (8.11)	0-36
Relationship Length	1.81 (1.47)	0.01-5.59										

Note. Men at Time 4, N=161 for Physical Violence and Relationship Length and 160 for other variables; at Time 5, N=159; at Time 6, N=147 for Depressive symptoms and 162 for all other variables. Women at Time 4, N=160 for Marijuana and 161 for other variables; at Time 5, N= 158; at Time 6, N=148 for depressive symptoms and 162 for all other variables.

Model Estimation

Latent Class Analysis (LCA). First, in order to understand the patterns of behavior over time, a cross-sectional Latent Class Analysis (LCA) was performed to identify groups, or classes, based on conflict patterns. The LCA was chosen because the latent and manifest variables (indicators) in this study are categorical (Nylund, 2007). Further, LCA models can find unobserved heterogeneity in a population or meaningful groups of people that are similar in their responses and identify items that distinguish between classes (Muthén, 2004). This process allows for more in depth investigation of conflict patterns including substance use and physical violence. The number of classes (conflict types) within each of the 3 times was used to identify classes of couples based on patterns of conflict. The couples who stayed together across all three time points were included in the LCA. Separate LCAs were completed for men and women at all time

points because there were substantive differences in the reported themes and descriptions of the conflicts.

The number of conflict types was not determined a priori; instead profiles of conflict types were modeled empirically. For both men and women at each time point, a 1-class LCA model was specified and the number of classes was increased until the models did not converge or make substantive sense. Five criteria were used to consider the fit of each model and determine the number of latent classes that provided meaningful and statistically sound results (Muthen & Muthen, 2000; Nagin, 2005). First, a solution with *k* classes should result in improvement of model fit compared with a solution with *k* -1 classes, indicated by a decrease of the Bayesian information criterion (BIC; Schwarz, 1978). Second, adding an additional class should lead to a significant increase of fit, as indicated by the bootstrap likelihood ratio test (BLRT; Nylund, Asparouhov, & Muthen, 2007). Third, adding an additional class should result in improvement of model fit based on the Lo-Mendell-Rubin likelihood ratio test of model fit (LMR, Mendell, & Rubin, 2001) that compares the estimated model with a model with one less class. A low p-value indicates the estimated model should be retained over the model with one less class (Muthén & Muthén, 1998-2012). Fourth, if, while evaluating the content of the classes in the various solutions, an additional class in a solution with *k* classes was found to be a slight variation of a class already found in a solution with *k*-1 classes, then the more parsimonious solution was chosen. Finally, in order to make analyses of transitions between classes feasible, each class had to represent at least 10% of the sample (see also Speece, 1994). Frequency statistics for outcome variables are presented in Table 7 and 8. The LCA results for Time 4, 5, and 6 are presented in Table 9.

Table 7

Means for Outcome Variables for LCAs for Couples who Stayed Together

	Men			Women		
Time	4	5	6	4	5	6
Interpersonal	25.64	27.27	25.61	21.52	35.37	26.83
Relationships with Others	17.94	27.27	15.85	18.99	30.49	23.17
Resources and Responsibilities	24.35	29.87	37.80	27.84	28.05	30.49
Substance Use (either)	12.82	11.69	10.98	16.67	10.98	14.63
Threats and Yelling	56.41	53.25	40.24	62.82	67.07	54.88
Physical Aggression	11.54	6.49	2.44	10.26	3.66	7.32
Jealousy	19.23	11.68	10.98	20.51	17.07	3.70
Resolution	64.10	63.64	60.98	71.79	65.43	59.26

Note. Men at Time 4, N=78; at Time 5, N= 77; at Time 6, N=79. Women at Time 4, N=78 for themes and 77 for other variables; at Time 5, N=81 for Resolution, 82 for all other variable; at Time 6, N=80 for Jealousy and Resolution, 81 for all other variables.

Based on the LCA results presented in Table 8 and substantive comparison of the classes, a 3-class model was chosen for women at all three time points. For men, a 2-class model was selected at Times 4 and 6, and a 4-class model was selected at Time 5. Class selection is indicated by bolded text in all tables. For men at Time 5, the lowest BIC value of the LCA models was for the 4-class model (BIC = 660.53). The significant *p*-value of the BLRT for the 5-class model indicated that the addition of the one class to the 4-class model did not significantly improve model fit. For men at Time 6, the lowest BIC value (BIC = 640.501) and LMR value (LMR = 0.00) indicated a 2-class model was the best fit. Based on substantive comparison of the conditional item probability parameters (displayed in Figure 4), a 2-class model was also selected for Time 4 even though the BIC was slightly higher for the 1-class model. For the women's model, substantive comparison of probability parameters was an important element of decision making. For all time points, the statistical criteria did not clearly point to a class solution. The BIC indicated a 1-class solution at all time points; however, substantive comparison was warranted given the small difference in the BIC in the 1, 2, and 3-class models. The

Table 8

Descriptive Statistics for Covariates LCAs for Couples who Stayed Together

	Men						Women					
	4		5		6		4		5		6	
	Mean (SD)	Range	*Mean (SD)*	Range	*Mean (SD)*	Range	*Mean (SD)*	Range	*Mean (SD)*	Range	*Mean (SD)*	Range
Physical Violence	0.03 (0.13)	0-1	0.01 (0.07)	0-0.50	0.01 (0.05)	0-0.42	0.03 (0.13)	0-1.10	0.02 (0.07)	0-0.42	0.02 (0.06)	0-0.42
Depressive symptoms	0.30 (0.31)	0-1.55	0.26 (0.31)	0-1.90	0.35 (0.38)	0-2.30	0.44 (0.36)	0-1.65	0.46 (0.35)	0-1.75	0.42 (0.37)	0-1.70
Marijuana	38.73 (139.97)	0 - 999	28.60 (102.10)	0-730	27.06 (101.71)	0-730	0.32 (0.83)	0-4.90	0.33 (1.02)	0 -7	0.28 (0.96)	0-7
Alcohol	14.31 (10.63)	0-42	14.75 (10.36)	0-42	14.68 (9.77)	0-42	7.92 (8.34)	0-30	8.34 (7.91)	0-30	8.46 (6.92)	0-36
Relationship Length	2.10 (1.45)	.04-5.59										

Note. Men at Time 4, N=78; at Time 5, N=77; at Time 6, N=79. Women at Time 4, N=78; at Time 5, N= 82; at Time 6, N=81.

Table 9

LCA Measurement Model Results for Times 4, 5, and 6

Model	Time 4				Time 5				Time 6			
Men	BIC	BLRT	Class Size	LMR	BIC	BLRT	Class Size	LMR	BIC	BLRT	Class Size	LMR
1	684.27		78		664.59		77		641.36		79	
2	**695.84**	**0.03**	**20/58**	**0.08**	671.59	0.00	15/65	0.01	**640.50**	**0.00**	**30/49**	**0.00**
3					667.02	0.00	20/27/30	0.09	645.31	0.00	11/22/46	0.12
4					**660.53**	**0.00**	**15/18/18/26**	**0.05**	696.66	0.24	5/32/23/19	0.11
5					712.66	0.24	22/2/26/15/12	0.14				
Women												
1	675.49		78		705.78		82		674.314		81	
2	680.77	0.00	15/63	0.00	717.00	0.00	23/59	0.01	676.082	0.00	25/56	0.00
3	**699.19**	**0.01**	**15/17/46**	**0.10**	**730.180**	**0.02**	**23/24/35**	**0.10**	**674.468**	**0.00**	**19/24/38**	**0.01**
4	719.69	0.05	13/12/15/38	0.05	752.376	0.14	11/38/10/23	0.04	722.10	0.15	11/15/24/31	0.02

Note. Men at Time 4, N=78; at Time 5, N=77; at Time 6, N=79. Women at Time 4, N=78; at Time 5, N= 82; at Time 6, N=81.

nonsignificant *p*-value of the BLRT for the 4-class model at all time points indicated that the addition of one class to the 3-class model did not significantly improve model fit. A 3-class model was selected for all three time points based on model fit and substantive comparison. Thus, the number of classes for women remained relatively stable while the number of classes changed for men over time. This means this there was more variability in conflict patterns for men than women between the time points.

After deciding on the best fit for each time point, the next step was to interpret the classes. Conditional item probability model parameters are used to attribute substantive meaning to each class and aid in the interpretation of the latent classes. Item probability values are the probability of endorsing an item for individuals in a class (Nylund, 2007). Item probability plots for the latent classes are used to graphically display the item probabilities.

Figures 4 and 5 display item probability plots for men and women at Time 4, 5, and 6. The observed variables are along the x-axis and the y-axis displays the conditional item probabilities for each of the classes.

Classes for men. The top plot of Figure 4 presents the men's results at Time 4. The two lines, called profiles, correspond to the two classes of the LCA solution and the values are the conditional item probability for each of the eight items across the 2 classes. The profile plotted with diamonds, which represented 26.0% of the sample, indicated that the individuals in the class had a probability of 1 of endorsing the *Interpersonal* theme for the argument. Thus, this class is the *"interpersonal"* class. The profile plotted with squares, which represented 74.0% of the sample, indicated that the men in the class had a low-moderate probability of endorsing *Relationships with Others* and *Resources and*

Responsibilities themes for the argument. Both classes had a moderate probability of endorsing 'threats/yelling' and 'resolution,' and a low probability of endorsing 'physical' and 'jealousy.' Therefore, at Time 4, the 2 classes seem to be distinguished by the theme of the fight (e.g., Interpersonal) because both classes endorsed similar patterns substance use, threats and yelling, physical violence, jealousy, and resolution. The majority of the men were in the class with themes of *Relationships with Other*s and *Resources and Responsibilities*, the "*Relationships and Responsibilities Class*." The rest of the men were in the "*Interpersonal Class*."

Men's results at Time 5 are presented in the second plot of Figure 4. The profile plotted with diamonds, represented 19.4% of the sample, and showed that men in this class had a high probability of endorsing the *Relationship with Others*. The profile plotted with squares, represented 23.4% of the sample, and indicated that the men in this class had a moderate probability of endorsing *Interpersonal* and *Relationships with Others* themes. This class was named the *Conflict Class* because men in this class had a probability of 1 of endorsing 'threats and yelling' and moderate probability of endorsing 'substance use,' 'physical,' and 'jealousy' during the fight. Men in the profile with triangles, represented 23.4% of the sample, had a high probability of endorsing *Resources and Responsibilities* as the theme and a moderate probability of endorsing 'threats and yelling.' Men in the X profile, representing 33.8% of the sample, had a relatively high probability of endorsing *Interpersonal* as the theme and a low-moderate probability of endorsing 'threats and yelling,' low 'substance,' and low 'jealousy.' All four classes had a moderate probability of endorsing a 'resolution' to the fight, the profile with the theme of *Relationship with Others* had the lowest probability of endorsing "resolution."

At Time 5, more variability in conflict patterns emerged between the four classes and the number of men in classes was more equally distributed. The *Relationship with Others Class* had the lowest likelihood of endorsing all the conflict variables including 'resolution.' The *Conflict Class* did not have a high likelihood of endorsing one theme and had the highest likelihood of endorsing conflict variables: 'substance use,' 'threats and yelling,' 'physical,' and 'jealousy' with a likelihood of endorsing resolution similar to the other classes. The *Resources and Responsibilities Class* was marked by moderate likelihood of endorsing 'threats and yelling.' The largest class was the *Interpersonal Class* and had a low to moderate likelihood of endorsing 'threats and yelling' and low likelihood of endorsing 'substance use' and 'jealousy.' Overall, there is a group of men whose fights seem to be characterized by conflict regardless of the theme. For the other groups, the classes are driven by the themes with some differentiation based on conflict patterns. It is interesting to note that the likelihood of endorsing resolution was similar for all the classes. Further, the class with the lowest levels of conflict had the lowest likelihood of endorsing resolution.

Men's results at Time 6 are presented in the third plot of Figure 4. The profile plotted with diamonds, represented 38% of the sample, and showed that men in this class had a probability of 1 of a discussion fitting *Resources and Responsibilities* as the theme. The profile plotted with squares, represented 62% of the sample, and indicated that the men in this class had a low-moderate probability of endorsing *Interpersonal* and *Relationships with Others* themes. Men in this class had a low probability of endorsing 'substance use.' Both classes had a low-moderate probability of endorsing 'threats and

yelling' and moderate probability of endorsing 'resolution,' with the *Resources and Responsibilities Class* being slightly lower for both variables.

At Time 6, like Time 4, two class emerged that seemed to be differentiated by the theme of the fight, albeit different theme differentiation than at Time 4. Both classes had a low to moderate likelihood of endorsing 'threats and yelling' and moderate likelihood of endorsing 'resolution.' The majority of the men were in the class with themes of *Interpersonal and Relationships with Others,* the *Interpersonal and Relationships Class*. Men in this class were more likely to endorse 'substance use' and 'jealousy.' Overall, Time 5 differed from the other two time points in the number of classes and more differentiation in conflict patterns, with one class of men with more negative conflict patterns.

Classes for women. Women's results at Time 4 are presented in the first plot of Figure 5. The profile plotted with diamonds, represented 19.2% of the sample, and showed that women in this class have a probability of 1 of endorsing *Relationships with Others* as the theme. Women in this class had a moderate probability of endorsing 'threats and yelling,' 'jealousy,' and 'resolution.' The profile plotted with squares, represented 21.8% of the sample, and indicated that the women in this class had moderate probability of endorsing *Interpersonal* and low probability of endorsing *Resources and Responsibilities* as themes. Women in this class had a moderate probability of endorsing 'substance use' and 'physical,' a high probability of endorsing 'threats and yelling' and 'jealousy,' and a moderate-high probability of endorsing 'resolution.' The profile plotted with triangles represented 59% of the sample and indicated that women in this class had a low probability of endorsing *Interpersonal* and a moderate probability of endorsing

Resources and Responsibilities as themes. Women in this class had a low probability of endorsing 'substance use,' moderate on threats and yelling 'threats and yelling,' and moderate-high on 'resolution.'

The *Relationships with Others Class* and *Resources and Interpersonal Class*, which together accounted for the majority of the sample, had similar patterns on the conflict variables. The main difference was that the *Relationship with Others Class* had a greater likelihood of endorsing jealousy. A third class, the *Conflict Class* (21.8%), had the highest likelihood of endorsing all conflict variables. This finding is similar to the findings for the *Conflict Class* for men at Time 5 because these women reported higher likelihood of endorsing conflict variables and a moderate-high probability of endorsing 'resolution.'

Women's results at Time 5 are presented in the second plot of Figure 5. The profile plotted with diamonds, represented 28% of the sample, and showed that women in this class had a probability of 1 of endorsing *Relationships with Others* as the theme and low probability of endorsing 'jealousy.' The profile plotted with squares, represents 29.3% of the sample, and indicated that the women in this class had a low probability of endorsing *Interpersonal* and moderate probability of endorsing *Resources and Responsibilities* as themes and a low probability of endorsing 'substance use.' The profile plotted with triangles represented 42.7% of the sample and indicated that women in this class had a high probability of endorsing *Interpersonal* and a low probability of endorsing *Relationships with Others* as themes. Women in this class had a moderate probability of endorsing 'substance use' and 'jealousy.' Women in all three classes had moderate probabilities of endorsing 'threats and yelling,' and low probabilities of

endorsing 'physical.' Additionally, the three classes had moderate probabilities of endorsing 'resolution' with the square class the highest and the diamond class the lowest.

At Time 5, the *Relationship with Others Class* looked similar to the *Relationship with Others Class* at Time 4 with less likelihood of endorsing jealousy compared to Time 4. An *Interpersonal Class* emerged, marked by moderate likelihood of endorsing 'substance use' and 'jealousy.' A *Conflict Class,* is no longer present and there were similar patterns of conflict variables across the classes, with the *Interpersonal Class* most likely to endorse 'substance use' and 'jealousy.'

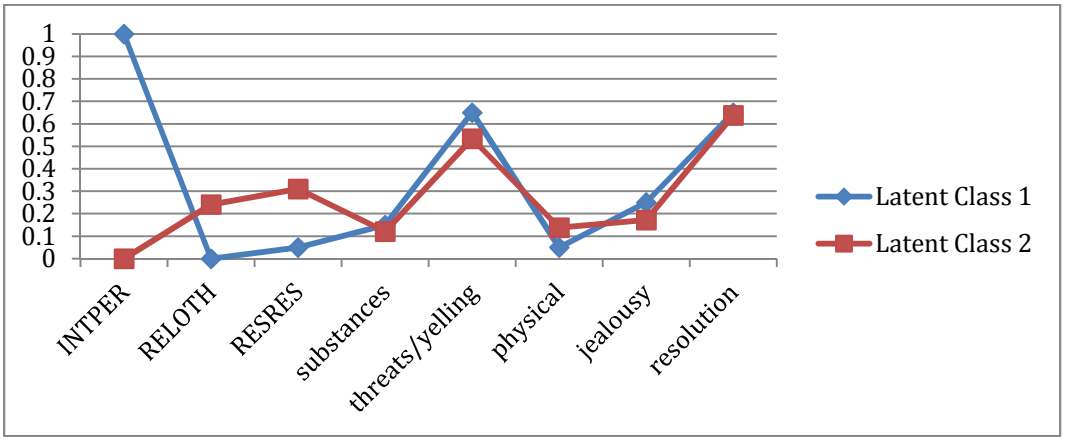
Women's results at Time 6 are presented in the last plot of Figure 5. The profile plotted with diamonds, represented 23.4% of the sample, and showed that women in this class had a moderate probability of endorsing *Relationships with Others* low-moderate probability of endorsing *Interpersonal* and low probability of endorsing *Resources and Responsibilities* as the themes of the fight. The women in this class had a probability of 1 of endorsing 'resolution' and probabilities of 0 of endorsing all of the other variables. The profile plotted with squares, represented 29.6% of the sample, and indicated that the women in this class had a probability of 1 of endorsing *Resources and Responsibilities* as the theme. The profile plotted with triangles represented 47% of the sample and indicated that women in this class had a high probability of endorsing *Interpersonal* and *Relationships with Others* as themes. The *Resources and Responsibilities Class* and *Interpersonal and Relationships Class* had similar patterns of endorsing substance use, threats and yelling, physical, jealousy, and resolution. Both classes had a low probability of endorsing 'substance use' and 'physical.' Women in the *Resources and Responsibilities Class* had a moderate-high probability of endorsing 'threats and yelling'

and a low probability of endorsing 'jealousy.' Women in the *Interpersonal and Relationships Class* had a moderate probability of endorsing 'threats and yelling' and 0 probability of endorsing 'jealousy.' The *Interpersonal and Relationships Class* had higher probability than the *Resources and Responsibilities Class* for substance use, threats and yelling, physical, and jealousy but lower probability of endorsing resolution.

At Time 6, for the first class the likelihood of endorsing *Relationship with Others* as the theme decreased and the likelihood of endorsing the conflict variables decreased while the likelihood of endorsing 'resolution' increased. The other two classes had similar patterns in terms of the likelihood of endorsing conflict variables. The *Interpersonal* and *Relationships with Others Class* (47%) had a higher likelihood of endorsing 'threats and yelling.' A *Resources and Responsibilities Class* emerged at Time 6, whereas at Times 4 and 5, *Relationship with Others* was the predominant distinguishing theme. Overall, even though the 3-class structure and class sizes remained relatively stable over time, the themes and conflict patterns varied. Further, a *Conflict Class* is present for women at Time 4 similar to men at Time 5.

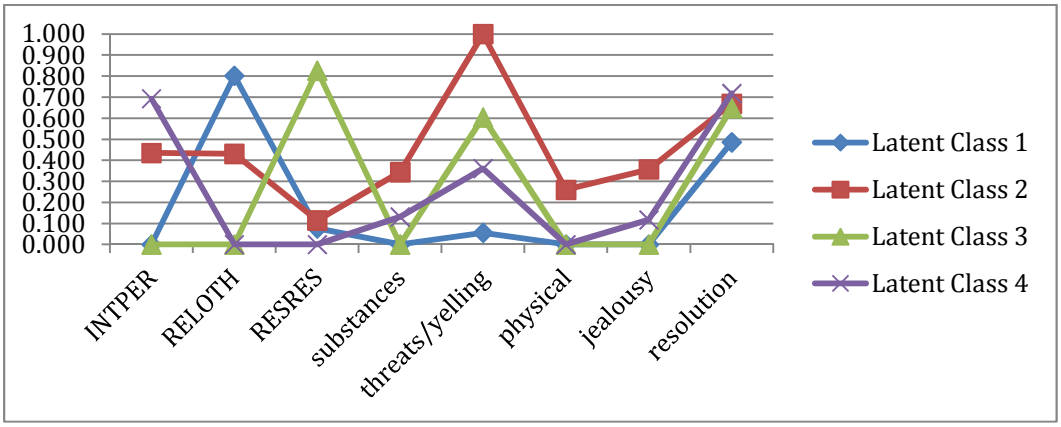
The conditional item probability values for each time for men and women are presented in Table 10. The values represent the mean probability of endorsement for the individuals in a given class and were used to create the probability plots in Figures 1 and 2.

Men at time 4



Note. Men at Time 4, Class 1: n=20; Class 2: n=58.

Men at time 5 (N= 77)



Men at time 6 (N=79)

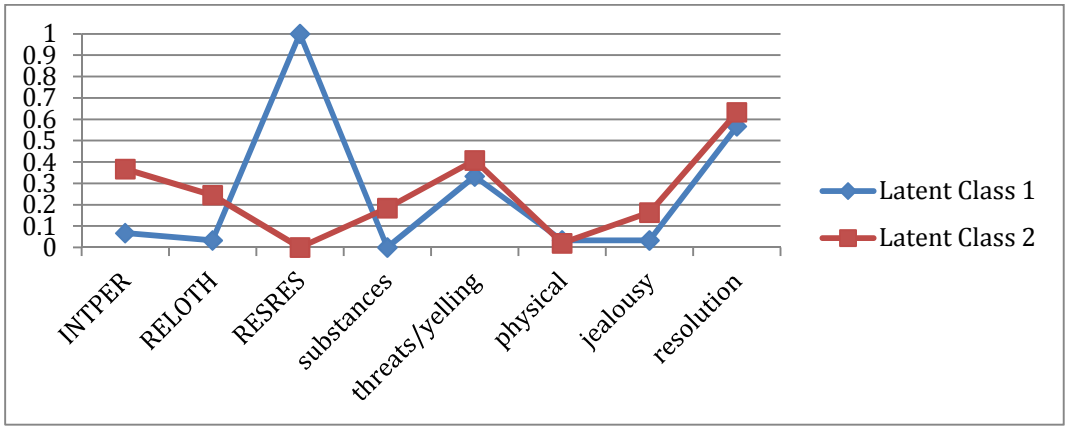
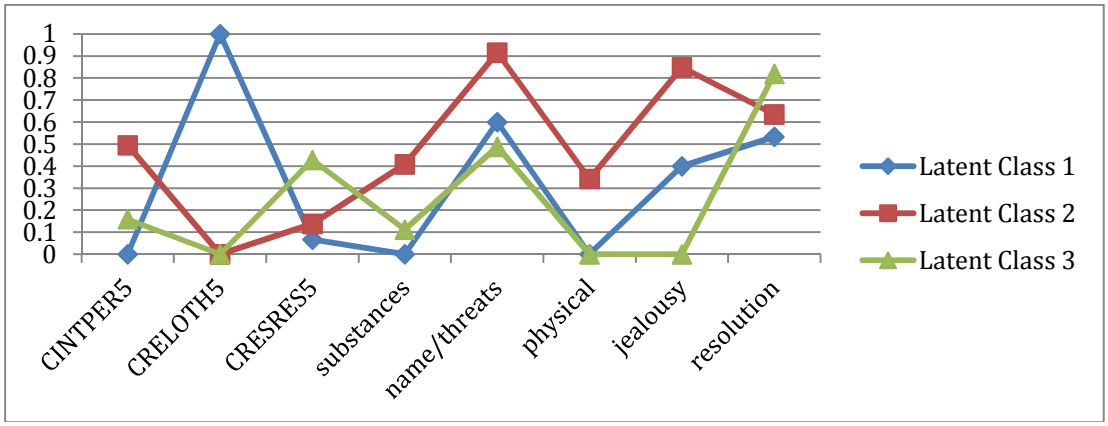


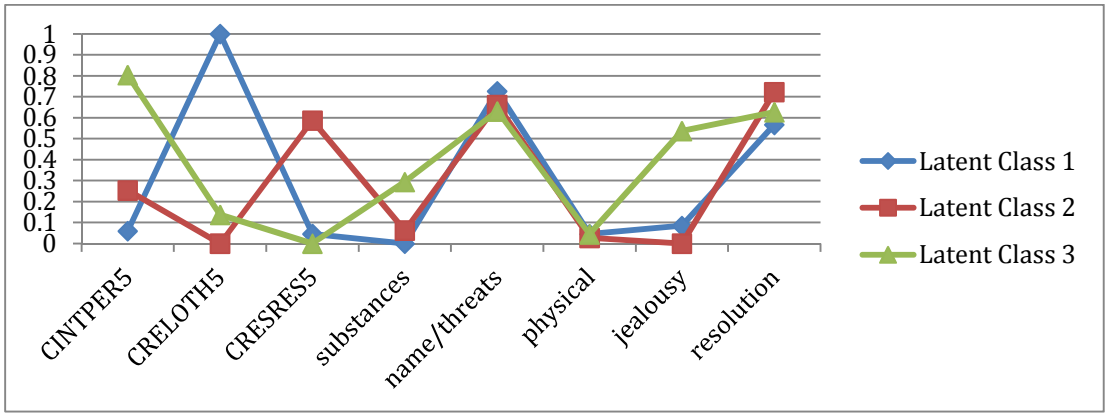
Figure 4. Conditional item probability plots for LCA for men at time 4, 5, and 6.

Women at time 4 (N=78)



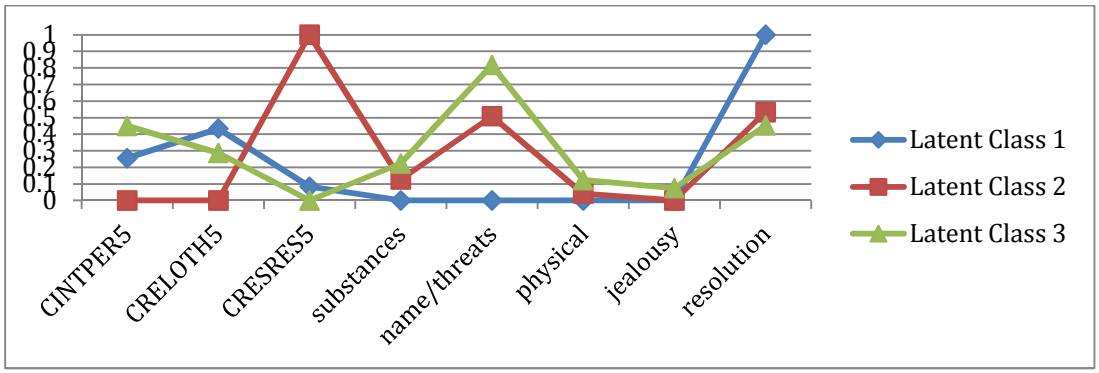
Note. Women at Time 4, Class 1: n=15; Class 2: n=17; Class 3: n=46.

Women at time 5 (N=82)



Note. Women at Time 5, Class 1: n=23; Class 2: n=24; Class 3: n=35.

Women at time 6 (N=81)



Note. Women at Time 6, Class 1: n=19; Class 2: n=24; Class 3: n=38.

Figure 5. Conditional item probability plots for LCA for women at time 4, 5, and 6.

Table 10

Conditional Item Probability Values for Each Time Point

		Class															
		1				2				3				4			
	Fight Item	Est	SE	Z	p	Est	SE	Z	p	Est	SE	Z	p	Est	SE	Z	p
Men Time 4 N=78	Interpersonal	1	0	0	1	0	0	0	1								
	Relationship with Others	0	0	0	1	0.24	0.06	4.30	0								
	Resources and Responsibilities	0.05	0.05	1.03	0.31	0.31	0.06	5.11	0								
	Substance Use	0.15	0.08	1.88	0.06	0.12	0.04	2.82	0.01								
	Threats/Yelling	0.65	0.11	6.09	0	0.5	0.07	8.16	0								
	Physical	0.05	0.05	1.03	0.31	0.14	0.05	3.05	0								
	Jealousy	0.25	0.10	2.58	0.01	0.17	0.05	3.48	0.00								
	Resolution	0.65	0.11	6.09	0	0.64	0.06	10.11	0								
Men Time 5 N=77	Interpersonal	0.00	0.00	0.00	1.00	0.44	0.18	2.40	0.02	0.00	0.00	0.00	1.00	0.70	0.29	2.43	0.02
	Relationship with Others	0.80	0.24	3.30	0.00	0.43	0.19	2.27	0.02	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
	Resources and Responsibilities	0.08	0.08	1.02	0.31	0.12	0.08	1.52	0.13	0.83	0.20	4.11	0.00	0.00	0.00	0.00	1.00
	Substance Use	0.00	0.00	0.00	1.00	0.34	0.15	2.24	0.03	0.00	0.00	0.00	1.00	0.13	0.09	1.42	0.16
	Threats/Yelling	0.06	0.13	0.44	0.66	1.00	0.00	0.00	1.00	0.60	0.11	5.38	0.00	0.36	0.26	1.37	0.17
	Physical	0.00	0.00	0.00	1.00	0.26	0.14	1.90	0.06	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
	Jealousy	0.00	0.00	0.00	1.00	0.36	0.14	2.64	0.01	0.00	0.00	0.00	1.00	0.12	0.18	0.67	0.51
	Resolution	0.49	0.14	3.51	0.00	0.67	0.15	4.50	0.00	0.65	0.11	6.09	0.00	0.72	0.14	5.28	0.00
Men	Interpersonal	0.07	0.05	1.46	0.14	0.37	0.07	5.33	0								

Time 6 N=79													
	Relationship with Others	0.03	0.03	1.02	0.31	0.25	0.06	3.986	0				
	Resources and Responsibilities	1	0	0	1	0	0	0	1				
	Substance Use	0	0	0	1	0.18	0.06	3.32	0.00				
	Threats/Yelling	0.33	0.09	3.87	0	0.41	0.07	5.81	0				
	Physical	0.033	0.033	1.02	0.31	0.02	0.02	1.01	0.31				
	Jealousy	0.03	0.03	1.02	0.31	0.16	0.05	3.09	0.00				
	Resolution	0.57	0.09	6.26	0	0.63	0.07	9.19	0				
Women	Interpersonal	0	0	0	1	0.495	0.142	3.493	0	0.159	0.088	1.803	0.071
Time 4 N=78													
	Relationship with Others	1	0	0	1	0	0	0	1	0	0	0	1
	Resources and Responsibilities	0.067	0.064	1.035	0.30	0.138	0.095	1.457	0.145	0.429	0.089	4.815	0
	Substance Use	0	0	0	1	0.408	0.14	2.913	0.004	0.112	0.055	2.037	0.042
	Threats/Yelling	0.6	0.126	4.743	0	0.915	0.095	9.68	0	0.488	0.083	5.899	0
	Physical	0	0	0	1	0.342	0.139	2.463	0.014	0	0	0	1
	Jealousy	0.4	0.126	3.162	0.00	0.489	0.142	3.438	0.001	0	0	0	1
	Resolution	0.533	0.129	4.14	0	0.635	0.126	5.036	0	0.819	0.071	11.483	0
Women	Interpersonal	0.06	0.078	0.773	0.44	0.254	0.118	2.146	0.032	0.804	0.13	6.19	0
Time 5 N=82													
	Relationship with Others	1	0	0	1	0	0	0	1	0.137	0.093	1.472	0.141
	Resources and Responsibilities	0.046	0.045	1.015	0.31	0.587	0.157	3.744	0	0	0	0	1
	Substance Use	0	0	0	1	0.063	0.056	1.127	0.26	0.294	0.129	2.279	0.023

	Threats/Yelling	0.727	0.099	7.363	0	0.662	0.087	7.597	0	0.631	0.127	4.981	0
	Physical	0.045	0.045	1.007	0.31	0.027	0.028	0.957	0.338	0.045	0.053	0.844	0.399
	Jealousy	0.085	0.065	1.312	0.19	0	0	0	1	0.537	0.248	2.171	0.03
	Resolution	0.567	0.108	5.232	0	0.723	0.087	8.338	0	0.627	0.127	4.951	0
Women Time 6 N=81	Interpersonal	0.225	0.121	1.85	0.06	0	0	0	1	0.45	0.082	5.515	0
	Relationship with Others	0.434	0.131	3.309	0.00	0	0	0	1	0.287	0.074	3.863	0
	Resources and Responsibilities	0.084	0.08	1.055	0.29	1	0	0	1	0	0	0	1
	Substance Use	0	0	0	1	0.127	0.069	1.855	0.064	0.223	0.065	3.451	0.001
	Threats/Yelling	0	0	0	1	0.509	0.104	4.904	0	0.818	0.072	11.426	0
	Physical	0	0	0	1	0.042	0.042	1.021	0.307	0.124	0.053	2.345	0.019
	Jealousy	0	0	0	1	0	0	0	1	0.075	0.042	1.777	0.076
	Resolution	1	0	0	1	0.533	0.103	5.189	0				

Latent Class Analysis (LCA) with Covariates. Next, in order to examine effect of physical violence, depressive symptoms, marijuana use, alcohol use, and relationship length on class membership, a cross-sectional Latent Class Analysis (LCA) was used. Initially, a simultaneous model was attempted but the inclusion of covariates changed classes to the point that it disrupted our ability to interpret the results. Therefore, classes were chosen, then posterior probability-based multiple imputations were used to predict classes (Muthén & Muthén, 1998-2012).

Covariates for men. For men at Time 4, there were no significant predictors. The four class model at Time 5 had several significant predictors. Table 11 shows the results of the categorical latent variable multinomial logistic regression for the effect of each predictor on men. Physical violence predicted every class except *Relationship with Others Class* which was the class where men were least likely to endorse the conflict variables. Depressive symptoms, marijuana, alcohol, and relationship length predicted membership in *Interpersonal Class*, the class with high likelihood of endorsing the *Interpersonal* theme, high likelihood of endorsing resolution, and moderate likelihood of threats and yelling. Men with more depressive symptoms and marijuana use were less likely to be in the *Interpersonal Class* compared to the *Conflict* and *Resources and Responsibilities Classes*. Therefore, men with higher levels of depressive symptoms and men who use marijuana may be more likely to engage in negative conflict behaviors, particularly threats and yelling. For men at Time 6, the only significant predictor was alcohol use. At Time 6, men with more alcohol use were less likely to be in the *Resources and Responsibilities Class* than the *Interpersonal and Relationships Class*.

Based on these findings it seems that depression and marijuana are more similar in predicting conflict class than alcohol and marijuana use.

Covariates for women. There were no significant predictors for women at any of the time points. Table 12 shows the results of the categorical latent variable multinomial logistic regression for the effect of each predictor on women.

Table 11

Predictors of Class Membership for Men

	Class at Time 4			
	1	2	3	4
Physical Violence	-	1.048		
Depressive symptoms	-	-0.44		
Alcohol	-	-0.041		
Marijuana	-	-0.002		
Relationship Length	-	0.432		
		Class at Time 5		
Physical Violence	-	200.14**	194.301**	188.381**
Depressive symptoms	-	3.31	3.267	-12.174**
Alcohol	-	0.06	0	0.043
Marijuana	-	0.02	0.02	-0.011
Relationship Length	-	0.21	0.117	0.303
Physical Violence		-	-5.834	-11.754**
Depressive symptoms		-	-0.04	-15.481**
Alcohol		-	-0.061	-0.017
Marijuana		-	0.001	-0.03**
Relationship Length			-	-5.92
Physical Violence			-	-15.44**
Depressive symptoms			-	0.044
Alcohol			-	-0.031**
Marijuana			-	0.185
Relationship Length			-	-5.92
		Class at Time 6		
Physical Violence	-	-6.455		
Depressive symptoms	-	-0.289		
Alcohol	-	-0.062*		
Marijuana	-	-0.015		
Relationship Length	-	-0.072		

Note. Dashes indicate the reference class. ** p<.01, *p<.05. *Note*. Men at Time 4, N=78; at Time 5, N=77; at Time 6, N=79.

Table 12

Predictors of Class Membership for Women

	Class at Time 4		
	1	2	3
Physical Violence	-	4.149	-10.485
Depressive symptoms	-	-0.366	-1.794
Alcohol	-	0.012	-0.003
Marijuana	-	1.282	0.657
Relationship Length	-	0.562	0.235
Physical Violence		-	-14.63
Depressive symptoms		-	-1.428
Alcohol		-	-0.014
Marijuana		-	-0.625
Relationship Length		-	-0.327
	Class at Time 5		
Physical Violence	-	1.276	3.191
Depressive symptoms	-	-0.007	-0.096
Alcohol	-	0.614	1.047
Marijuana	-	0.39	0.242
Relationship Length	-	-0.665	2.251
Physical Violence		-	1.915
Depressive symptoms		-	-0.089
Alcohol		-	0.433
Marijuana		-	-0.148
Relationship Length		-	2.917
	Class at Time 6		
Physical Violence	-	13.775	18.239
Depressive symptoms	-	0.067	0.044
Alcohol	-	0.425	-0.04
Marijuana	-	0.162	0.334
Relationship Length	-	1.352	1.245
Physical Violence		-	4.464
Depressive symptoms		-	-0.023
Alcohol		-	-0.465
Marijuana		-	0.171
Relationship Length		-	-0.107

Note. Dashes indicate the reference class. Women at Time 4, N=78; at Time 5, N= 82; at Time 6, N=81.

Finally, in order to look at change in classes across time a multinomial logistic regression was performed. Frequency statistics for outcome variables and covariates are reported in tables 13 and 14, respectively.

Table 13

Frequency Statistics for Outcome Variables: Couples that Stayed Together

	Men			Women		
	4	5	6	4	5	6
Interpersonal	25.68	26.03	25.32	21.05	35.90	26.52
Relationships with Others	18.92	27.40	16.46	19.74	32.05	22.50
Resources and Responsibilities	24.32	31.51	37.97	27.63	29.49	31.25
Substance Use (either)	13.51	12.33	11.39	17.33	11.54	15.00
Threats and Yelling	56.76	53.42	39.97	62.67	65.38	55.00
Physical Aggression	12.16	6.85	2.53	9.33	3.85	7.50
Jealousy	20.27	10.96	11.39	20.00	17.95	3.80
Resolution	63.51	65.75	60.76	72.00	67.53	58.23

Note. Men at Time 4, N=74; at Time 5, N= 73; at Time 6, N=79. Women at Time 4, N=76 for themes and 75 for other variables; at Time 5, N=77 for Resolution, 78 for all other variable; at Time 6, N=79 for Jealousy and Resolution, 80 for all other variables.

Multinomial logistic regression. For men in Class 1 at Time 4, the probability of moving to Class 1 at Time 5 was statistically significantly different than the probability of moving to Class 4. Therefore, a man who was in Class 1 at Time 4 was more likely to move to Class 1 at Time 5 than Class 4. Further, men in Class 1 at Time 5 were statistically significantly more likely to be in Class 1 at Time 6 than Class 2. This means that men in Class 1 were likely to stay in class 1 over time. Even though men were likely to stay in the same class over time, the patterns of conflict and themes changed for the classes over time. Therefore, men in the *Interpersonal Class* at Time 4 are more likely to be in the *Relationships with Others Class* at Time 5, compared to the *Interpersonal Class*. Men in the *Relationships with Others Class* at Time 5 are likely to be in the *Resources and Responsibilities Class* at Time 6.

Table 14

Descriptive Statistics for Covariates: Couples that Stayed Together

	Men						Women					
	4		5		6		4		5		6	
	Mean (SD)	Range	*Mean (SD)*	Range	*Mean (SD)*	Range	*Mean (SD)*	Range	*Mean (SD)*	Range	*Mean (SD)*	Range
Physical Violence	0.03 (0.12)	0-1	0.12 (0.06)	0-0.50	0.01 (0.05)	0-0.42	0.03 (0.13)	0-1.10	0.02 (0.07)	0-0.42	0.02 (0.06)	0-0.42
Depressive symptoms	0.30 (0.31)	0-1.55	0.29 (0.31)	0-1.90	0.35 (0.38)	0-2.30	0.43 (0.36)	0-1.65	0.45 (0.35)	0-1.75	0.42 (0.38)	0-1.70
Marijuana	48.48 (173.15)	0 -999	27.72 (99.80)	0-730	26.30 (99.90)	0-730	0.36 (0.90)	0-4.90	0.33 (1.02)	0-7	0.27 (0.95)	0-7
Alcohol	14.94 (10.73)	0-42	14.70 (10.32)	0-42	14.55 (9.96)	0-42	8.59 (7.9)	0-30	8.31 (7.86)	0-30	8.3 (6.90)	0-36
Relationship Length	2.13 (1.45)	0.04-5.59										

Note. Men, N=82; Women N=83.

For women in Class 1 at Time 4 or Class 1 or 2 at Time 5, the probability of moving to Class 2 at Time 6 was statistically significantly different than the probability of moving to Class 3. Therefore, a woman who was in Class 1 at Time 4 or Class 1 or 2 at Time 5 was more likely to move to Class 2 at Time 5 than Class 3. Further, women in Class 2 at Time 5 were statistically significantly more likely to be in Class 1 at Time 6 than Class 2. Women in the *Relationship with Others Class* at Time 4 and Time 5 and the class with moderate likelihood of endorsing Resources and Responsibilities at Time 5 were more likely to move to the *Resources and Responsibilities Class* than the class marked by 'threats and yelling' and Interpersonal and Relationships with Others as the themes at Time 6. The class with moderate likelihood of endorsing Resources and Responsibilities at Time 5 was more likely to move to the class with moderate likelihood of endorsing Relationship with Others and Interpersonal as the themes than the *Resources and Responsibilities Class* at Time 6. These changes highlight the connection between the themes of Relationship with Others and Resources and Responsibilities

The models did not converge and we could not get consistent patterns when covariates were added to the multinomial logistic regression. Therefore, results will not be reported for these analyses.

CHAPTER IV

DISCUSSION

This chapter provides a review of the material presented in this dissertation. Given the prevalence of physical violence in intimate relationships, it is important to understand characteristics of conflict in relationships and the contexts of IPV. The purpose of this study, therefore, was to examine men and women's descriptions of the circumstances and themes of their worst fight within the past year using an existing, longitudinal data set to allow analyses with cross-sectional and longitudinal models. First, an overview of the main findings is provided. Then, conflict themes are discussed for all couples and couples who stayed together. Next, the modeling results are summarized to highlight how the LCA and multinomial logistic regression inform our understanding of intimate partner conflict. In addition, the findings regarding covariates of physical violence, depressive symptoms, marijuana use, alcohol use, and relationship length are discussed. Finally, limitations of the study and opportunities for future research are addressed.

The LCA results demonstrated that the number of classes remained the same over time for women and varied over time for men. Even though the number of classes remained stable over time for women, the conflict patterns and themes varied over time. There was some stability in themes, for example the *Relationships with Others Class* was present at Time 4 and 5 for women. For men there were 2 classes at Time 4 and 6, and 4 classes at Time 5. There were some similar trends between men and women. A *Conflict Class* was present at Time 4 for women and Time 5 for men. Additionally, at Time 6 both men and women had an *Interpersonal and Relationships with Others Class* and a

Resources and Responsibilities Class. These findings suggest that there may be more similarity between men and women as they age and their relationships progress.

There were no significant predictors for women at any of the time points. For men the influences of the covariates vary over time and seem to be most important at Time 5, which may be because this was the time period with the highest number of classes. Alcohol was the only covariate that was significant at multiple time points. In terms of change over time, even though some men stayed in the same class, the patterns of conflict and themes changed for the classes. Therefore, some men who had similar conflict patterns at Time 4 also change in similar ways over time. Likewise, some women changed in similar ways over time because women from *Relationship with Others Class* at Time 4 and 5 were more likely to move to the *Resources and Responsibilities Class* at Time 6.

Themes of Conflict

When looking at all of the couples, not just couples who stayed together, several patterns emerged. For both men and women at Times 4 and 5, the Interpersonal category was the most common conflict theme. At Time 6, Resources and Responsibilities was most common for men and Relationships with Others was most common for women. For couples who stayed together, the Interpersonal category is also the most common theme for men at Time 4 and women at Time 5. However, Resources and Responsibilities is the most common theme for men at Time 5 and women at Time 4. Further, for couples who stayed together, Resources and Responsibilities is the most common theme for both men and women at Time 6.

Overall, it seems that Interpersonal themes are more prevalent at younger ages and Resources and Responsibilities become more common as people get older or relationships progress. The Resources and Responsibilities theme category may be more common at Time 4 and 5 for couples who stay together, possibly because these couples are in later stages of relationship development.

Jealousy has been shown to be a factor in aggression between partners (Barnett, Martinez, & Bluestein, 1995; Wilkinson & Hamerschlag, 2005) and may be especially relevant for young couples because of relationship instability and uncertain partner commitment (Capaldi, Kim, & Shortt, 2007). Similar to findings related to jealousy, interpersonal themes may be more relevant for younger couples or couples in earlier stages of their relationships. Therefore, jealousy and physical violence may be connected to the broader interpersonal themes of: lack of love, commitment, caring, incompatibility; breakup/separation; lying, deceiving, trust, cheating; amount of time spent together; inconsiderate behavior; sex; and interpersonal conflict.

Classes of Couples Based on Intimate Partner Conflict

The purpose of using LCA was to identify classes of couples based on their self-reported descriptions of the circumstances and themes of their worst fight within the past year. For men, the number of classes that emerged based on men's description of conflict varied over time, while a 3-class model remained consistent over time for women.

For women, at Time 4 the classes were *Relationships with Others*, *Resources and Interpersonal*, and the *Conflict Class*. At Time 5, the *Relationships with Others Class* emerged, along with an *Interpersonal Class*, and the *Conflict Class*, is no longer present. Instead there were similar patterns of conflict variables across all classes. At Time 6,

there was an *Interpersonal and Relationships with Others* and a *Resources and Responsibilities Class*. There is a noteworthy pattern for the Interpersonal theme. The Interpersonal and Resources and Responsibilities themes were in the same class at Time 4. Then Interpersonal theme is in an independent class at Time 5 then clusters with Relationships with Others at Time 6 to form the *Interpersonal and Relationships with Others Class*.

For men, at Time 4 the two classes were the *Relationships and Responsibilities Class* and the *Interpersonal Class*. The four classes at Time 5 were: *Relationship with Others, Conflict, Resources and Responsibilities,* and *Interpersonal*. The two classes at Time 6 were *Interpersonal and Relationships with Others* and *Resources and Responsibilities*. At Time 6, a distinct class of men distinguished by negative conflict patterns is no longer evident. Additionally, there appeared to be a shift in themes over time, with the *Interpersonal* theme distinguishing classes at Time 4 and the *Resources and Responsibilities* theme playing a larger role at Time 5 and 6.

Overall, the finding that negative conflict elements decreased over time adds to previous findings that rates of physical aggression decrease between the ages of 25 and 35 years (O'Leary, 1999, Fritz and O'Leary, 2004). There were distinct patterns for men and women. The highest rates of conflict were at Time 5 for men and Time 4 for women. It seems that physical violence during fights decreased as other negative conflict elements - namely substance use, threats and yelling, and jealousy - decreased. This pattern was consistent for all classes and most pronounced for the classes with the highest likelihood of endorsing conflict variables. These findings support the importance of conflict

management and negotiation of relationship issues for social and emotional adjustment throughout life (Laurent, Kim, & Capaldi, 2008).

It was an important finding that there were low rates of substance use during the fights. Substance use during a fight is commonly blamed for fighting (Chermack & Taylor, 1995; Critchlow, 1983; Fals-Stewart, 2003), yet these findings indicate it may be less involved than commonly thought. These low rates may be partly due to the sample of couples included in the analyses. The couples included in the study stayed together for at least the three time points in the study. Couples who stayed together make up a substantial portion of the whole sample, however, these couples may represent a more stable group and different classes or conflict patterns may have been present if the study was not limited to the couples who stayed together. For example, IPV trajectories have been shown to be influenced by change in partner (Shortt et al., 2012).

Effect of Covariates on Classes

The study included physical violence, depressive symptoms, marijuana use, alcohol use, and relationship length as covariates. These particular variables were used because existing research has demonstrated the association with intimate partner violence (Wiersma et al., 2010; Shortt et al., 2011; Marshall et al., 2011). Overall, covariates were included to increase our understanding of the distal contextual factors related to violence. For instance, substance use was included as a covariate and as variables in the specific fight being analyzed, to further the understanding of the connection between general substance use patterns, substance use during a fight, and IPV.

Women. The finding that there were no significant predictors for women at any of the time points can be interpreted in a number of ways. It may be that different factors

are predictive of women's conflict. It is possible that the covariates help account for the change in the number of classes for men at the three time points but were not as relevant for women.

Men. For men, results indicated that there no significant predictors at Time 4, likely because there were only 2 classes and both classes had similar patterns of endorsing the conflict variables. At Time 5, physical violence predicted class membership for all of the classes except the class where men were least likely to endorse the conflict variables. Men with more depressive symptoms, marijuana use, and alcohol use were more likely to be in the *Interpersonal Class,* which had a high likelihood of endorsing resolution and moderate likelihood of endorsing threats and yelling. Men in this class may be more likely to engage in avoidant coping behaviors and therefore may endorse that a conflict is resolved even when it is not in order to decrease distress associated with conflict. Additionally, men with more depressive symptoms and marijuana use were less likely to be in the *Interpersonal Class* compared to the *Conflict* and *Resources and Responsibilities Classes*. Therefore, men with higher levels of depressive symptoms and men who use marijuana may be more likely to engage in negative conflict behaviors, particularly threats and yelling. This finding is consistent with previous findings regarding the association between depressive symptoms and using fewer positive conflict resolution strategies and less problem solving (Marshall et al., 2011; McCabe & Gotlib). It may be that in an effort to avoid distress, these men prematurely resolve conflicts, thereby decreasing opportunities to develop positive conflict resolution strategies. Further, men who use marijuana may be more likely to engage in fights about Resources and Responsibilities. Conflicts of this nature may

negatively affect relationships because they continue to emerge as points of contention resulting in frequent and increased levels of conflict.

At Time 6, men with more alcohol use were less likely to be in the *Resources and Responsibilities Class* than the *Interpersonal and Relationships Class*. There was consistency between distal and proximal use of alcohol since substance use during the conflict was higher for the *Interpersonal and Relationships Class* than the *Resources and Responsibilities Class*.

Overall, the influences of the covariates varied over time and seemed to be most important at Time 5. Further, men who used more marijuana or had more depressive symptoms were more likely to be in the *Resources and Responsibilities Class* at Time 5 while men who use alcohol were more likely to be in the *Interpersonal Class* at Time 6. Based on these findings it seems that marijuana and alcohol have different influences on conflict patterns. Additionally, depression and marijuana were more similar in predicting conflict class than alcohol and marijuana use.

The main significant findings for all covariates were for men at Time 5. This was the time period when there were the highest number of classes and greatest amount of variability between classes. Alcohol was the only covariate that was significant at multiple time points (i.e., Time 5 and 6 for men), which may reflect the long-term influence of alcohol use on conflict patterns. This distal type of effect of alcohol use on conflict provides support for the spurious or indirect models of substance use (Fals-Stewart, 2003; Leonard & Quigley, 1999; Wiersma et al., 2010). The proximal model was not supported because few individuals reported that substances were used at the time of the fight.

The influence of relationship length may have been offset by the fact that relationship type and age were not accounted for. It is noteworthy that there were significant findings for depressive symptoms for men but not for women given previous findings that the connection between conflict and depressive symptoms is particularly strong for women (Whisman, Uebelacker, & Weinstock, 2004; Laurent, Kim, & Capaldi, 2009; McCabe & Gotlib (1993). These findings and previous inconsistent results highlight the complexity of the association between depressive symptoms and IPV and reinforce the need to investigate the influence of each partner's depressive symptoms on the couple's interaction patterns. Consideration of multiple forms of IPV is important to understand this association (Nurius et al., 2003). Additionally, relationship satisfaction was not included in this study, limiting our understanding of the connection between the variables, particularly for the association between depressive symptoms and physical violence (O'Leary, Slep, & O'Leary, 2007). Low relationship satisfaction is associated with IPV for men and women (Smith Slep et al., 2010; Capaldi et al., 2012; Kim et al., 2008).

Overall, the results demonstrated that the hypotheses related to covariates did not capture the complexity found in the results related to gender and age. The first hypothesis was that IPV would predict membership in a class where substance use, threats and yelling, and jealousy were present. Results were only consistent with this hypothesis for men at Time 5 where IPV predicted class membership for three out of four of the classes. It seems that IPV predicted class membership where substance use, threats and yelling, and jealousy were present since physical violence was not a predictor of the class where conflict variables were least likely to be endorsed.

The other two hypotheses related to the effect of covariates on partners within a couple were not tested because conflict patterns for men and women were investigated separately. In other words, conflict patterns were not investigated for couples for analytical reasons. However, gender specific class membership could be examined in relation to these hypotheses. Substance use and depressive symptoms were predictive of class membership for men at Time 5. Men with higher depressive symptoms and marijuana use were less likely to be in the *Interpersonal Class* and more likely to be in the classes with higher likelihood of threats and yelling. However, the patterns related to physical violence and jealousy were not as straightforward. For physical violence, one of the two groups that men with depressive symptoms and marijuana use were more likely to be in had a higher likelihood of endorsing physical violence and one was equal to the *Interpersonal Class*. For jealousy, one of the two groups that men with depressive symptoms and marijuana use were more likely to be in had a higher likelihood of endorsing jealousy and were less likely to endorse jealousy than the *Interpersonal Class*. As stated previously, at Time 6, men with more alcohol use were more likely to be in the *Interpersonal and Relationship Class*, the class with slightly higher levels of threats and yelling and jealousy. The two classes had similar levels of physical conflict.

In conclusion, IPV predicted class membership where substance use, threats and yelling, and jealousy were present for men at Time 5. Marijuana use and depression predicted membership in a class with higher likelihood of threats and yelling. However, the influence of marijuana and depressive symptoms on physical violence and jealousy were not as straightforward as hypothesized. Finally, alcohol use predicted membership in a class with higher likelihood of jealousy at Time 6.

Class Change over Time

Based on the multinomial logistic regression results, men in Class 1 were likely to stay in class 1 over time. Even though men were likely to stay in the same class over time, the patterns of conflict and themes changed for the classes over time. It may be that these men transitioned in similar ways based on themes of conflict that changed based on phase of life from Interpersonal to Relationships with Others to Resources and Responsibilities. Further, the patterns of conflict may have shifted in similar ways for this group reflecting developmental shifts in conflict patterns.

Women from *Relationship with Others Class* at Time 4 and 5 were more likely to move to the *Resources and Responsibilities Class* at Time 6. These changes highlight the connection between the themes of Relationship with Others and Resources and Responsibilities. It may be that as people age and relationships progress, it is common for themes to shift from Relationships with Others to Resources and Responsibilities. This finding makes sense in terms of phase of life and demands on the relationship.

The fact that the models did not converge when covariates were added to the models for both men and women was likely due to analytic reasons. In this study there were a relatively large number of parameters for the sample size and the addition of the covariates increased the number of parameters to a point where the sample size was not adequate. Therefore, it was not possible to test the hypothesis that change in substance use, the presence of IPV, or depressive symptoms would predict change in class membership.

The current study highlights the complexity of couples conflict and IPV. There are many variables and contextual factors that are important to understand IPV, including

the variables measured in this study and additional variables such as relationship satisfaction. The results point to the importance of using a comprehensive like the Dynamic Developmental Systems Model (Capaldi, Shortt, & Kim, 2005) to understand IPV.

Strengths and Limitations of Study

The current study offers several strengths and implications. The use of an existing longitudinal data set with a sample couples including reports of both partners supported comprehensive inquiry. The sample is considered an at risk sample. A "critical incidents" approach was used to ask intensively about the worst fight from each partner's perspective. Additionally, this study incorporated data on substance use, depressive symptoms, conflict patterns, and relationship factors to offer a contextual understanding of partner dynamics. The inclusion of three time points is also particularly noteworthy as this association was observed over multiple time points giving even further detail about the stability of conflict patterns over time. Therefore, the results of this study provide information about change in conflict over time and how variables such as substance use influence this change.

Limitations of the current study are important to consider when interpreting results. First, reliance on self-report alone does not allow for a comprehensive measurement of conflict patterns. Additionally, the individuals were asked to retrospectively describe and recall the worst fight within the past year. Therefore, details may have been intentionally or unintentionally omitted. Each partner in the dyad responded to the same prompts but it is likely that they were not describing the same

fight. Further, the interaction between the partners was not addressed through objective measurement.

A second limitation is the majority of men and women in this sample self-identified as European-American. Therefore, results of this study may not generalize to more ethnically and geographically diverse samples. Further, individual and contextual factors and interplay of factors was not comprehensive (i.e., family factors, relationship satisfaction, and antisocial behavior). It is not possible to draw more conclusions related to the spurious and indirect effects models of substance use since factors such as antisocial behavior were not included in the models. A comprehensive understanding of IPV is important since the direct impact of variables, such as substance use, on IPV may be offset by individual and contextual factors. Similarly, different forms of IPV, such as emotional, were not included in this study.

Another limitation in this study was that due to analytic reasons, we did not differentiate if items were endorsed due to the man or woman or both. Instead, binary coding was used that only accounted for whether each variable was part of the argument. For example, if substance use during the fight was present, it was coded as "yes;" regardless of which partner or both partners were using. Using binary coding, decreased the complexity of analysis, particularly in terms of differentiating between patterns based on each partner's substance use, IPV perpetration, and jealousy.

Implications

This study increases awareness of the complexity of conflict and the many variables related to negative conflict patterns, thereby supporting prevention and intervention efforts related to IPV. It is important for clinicians and researchers to

understand the complexities of conflict patterns in terms of both distal and proximal factors.

These findings highlight the importance of supporting couples in developing positive communication and problem solving skills for prevention and intervention efforts for IPV. Beyond, prevention efforts for IPV, these findings are relevant to general relationship satisfaction and individual well-being. Helping individuals engage in conflict in more productive ways may decrease the level of distress and avoidance when conflict arises and support resolution, ultimately decreasing the overall levels of conflict in relationships. Knowledge of the general patterns of conflict themes over time will support efforts to help couples engage in conflict more effectively by bringing to light the patters and helping couples apply problem solving strategies based on theme and patterns of conflict. For example, problem solving may look different for the theme of Interpersonal theme with Threats and Yelling than the Relationships with Others Theme with Substance Use. Overall, these findings provide a framework to help couples become more aware of their patterns and ultimately find ways to engage in conflict in proactive ways.

Recommendations for Future Research

Future studies would benefit from using a multi-agent report, in addition to using coding to measure partner interaction patterns. In addition to coding, it is important to inquire about couples' perceptions about interaction patterns. Additionally, differentiating between men and women's or both partners endorsement of variables (i.e., substance use) would add to our understanding of conflict patterns between the dyads. Including multiple forms of IPV and variables such as relationship satisfaction would further our

understanding of couples' interaction patterns, contextual aspects, and personal factors related to physical violence. Finally, future studies would benefit from exploring these associations among a more diverse sample as well as using a contextual and ecological approach that allows for the intersection of gender with race, ethnicity, social class, ability and sexual orientation (Gaarder et al., 2004).

Conclusion

Results of this study add to literature aimed at understanding conflict and IPV. Overall, study results provide support for developmental changes in conflict patterns based on age and stage of relationship with interpersonal themes being more common earlier and themes related to resources and responsibilities increasing with development. The covariates included in this study were more predictive of men's patterns of conflict than women's for all time points. Alcohol was the only covariate that was significant at multiple time points. The finding that depressive symptoms did not predict conflict class for women is surprising given literature supporting the connection between depressive symptoms and conflict for women. The finding that negative conflict strategies decreased over time is consistent with findings that physical aggression decreases with age. It is noteworthy that there were low rates of substance use during fights since substance use has been implicated in fighting. In addition, marijuana and alcohol seem to have different influences on conflict patterns. Further, depressive symptoms and marijuana may be more similar in predicting conflict patterns than alcohol and marijuana. These findings support the need to continue to tease out the variables related to conflict to inform prevention and intervention efforts for IPV. It will be important to include multiple forms

of IPV, relationship satisfaction, and antisocial behavior in future studies examining this relationship.

APPENDIX A

UO INSTITUTIONAL REVIEW BOARD APPROVAL

DATE: January 22, 2013 IRB Protocol Number: 12122012.022

TO: Leah Barr, Principal Investigator Department of Family and Human Services

RE: Protocol entitled, "Examination of Intimate Partner Conflict Over Time"

Notice of Review and Determination-Not Human Subject Research as per Title 45 CFR Part 46.102 (c-f)

Research Compliance Services has reviewed the proposed study project named above. Based on submitted materials and the project description, the study activities do not meet the definition of research with human subjects according to Title 45 CFR 46.102 (c-f).

You may conduct your activities as described without further submission. However, if the activities described are implemented in conjunction with any other human experimentation or if this project is modified to involve research with human subjects, you will need to submit a new protocol application for review by Research Compliance Services and/or the University of Oregon Institutional Review Board (IRB).
If you have any questions regarding your protocol or the review process, please contact Research Compliance Services at ResearchCompliance@uoregon.edu or (541)346-2510.

Sincerely,

Sheryl Johnson, BS, CHES, CIP
Associate Director Research Compliance Services University of Oregon

CC: Elizabeth Stormshak, Faculty Advisor

APPENDIX B

MEASURES

The Couples Interview: FIGHTING/ABUSE

Now I have some questions about disagreements you and your partner may have had.

1. What is the worst argument or fight you have had with each other this past year? (Ask for worst fight they can think of if say no fight; it doesn't have to be a terrible fight - just the worst one for them)

Probes: What was it about? What made it so bad? What happened in the end?

Describe_____
_____

_____

_____

2. **INTERVIEWER**: **Was an argument/fight described?** 1 - yes 2 - no
(If no, skip to Q. #15).

3. Did it involve use of substances (tobacco, alcohol, drugs, etc.) by either of you?
0 - Yes, mildly (e.g., disagreed on partner smoking)
1 - Yes, overuse precipitated fight (i.e., partner, self, other was drinking, using drugs, etc.)
2 - No
a. Him _____
b. Her _____

4. Did it involve things like name calling, yelling, threats, sulking, or refusing to talk, screaming or cursing, or throwing/breaking something, but not at each other?
1 - yes 2 - no
a. Him _____
b. Her _____

5. Did it involve anything physical like pushing or hitting by either of you? (score for perpetrator)
0 - Yes, moderate (push, shove, grab, throw something at, slap or hit)
1 - Yes, severe (kick, bite, hit with fist, hit or try to hit with something, beat up, choke, burn or scald)
2 - No
a. Him _____
b. Her _____
********[**IF NO to #5a AND #5b, SKIP TO #10a.**]**********

5c. Who initiated or began the physical part of the fight? 1 - TC 2 - female partner 3 - other 4-both

6a. Was __[**TC**]__ hurt or injured at all? 1 - yes 2 - no

IF yes, was he:	yes	no
b. knocked down	1	2
c. bruised	1	2
d. cut or bleeding	1	2
e. unconscious	1	2
f. visited the doctor or hospital	1	2
g. other (specify_____)	1	2

[**IF PARTNER LESS THAN 18 YEARS OLD, SKIP TO #8a.**]

7a. Was __[**PARTNER**]__ hurt or injured at all? 1 - yes 2 - no

IF yes, was she:	yes	no
b. knocked down	1	2
c. bruised	1	2
d. cut or bleeding	1	2
e. unconscious	1	2
f. visited the doctor or hospital	1	2
g. other (specify_____)	1	2

8a. Was any <u>other</u> person hurt or injured at all? 1 - yes 2 - no

IF yes, were they:	yes	no
b. knocked down	1	2
c. bruised	1	2
d. cut or bleeding	1	2
e. unconscious	1	2
f. visited the doctor or hospital	1	2
g. other (specify_____)	1	2

9a. Were the police called? 1 - yes 2 - no

If yes, was anyone arrested? 1 - yes 2 - no

b. him ____

c. her ____

d. other ____

10a. Did it involve jealousy? 1 - yes 2 - no

IF NO, skip to #11

b. Who was jealous? Of who?

1 Of other men by TC

2 Of other women or rivals by girlfriend

4 Of TC's friends or others or time away by girlfriend

5 Girlfriend was sexually involved with another man

3 Of her friends or others or time way by TC another woman

6 TC was sexually involved with

7 F-peer was involved in homosexual relationship

8 TC was involved in homosexual relationship

11. Did the fight occur because one or both of you wanted to break up?
1 - yes 2 - no

12. What happened in the end? (resolution):
1 - No resolution (ongoing, no closure; e.g., a jealously problem still lingering, woman's
family don't like him; or never dealt with it.)
2 - Resolved (worked it out, friends now, felt ok about it)
3 - Broke off relationship
4 - Relationship still going but damaged trust, etc (e.g., one who showed problematic
behavior acted like nothing had happened; one partner was unfaithful and still together
but damaged trust)
5 - Broke off romantic relationship, but still friends

13. Did it involve any delinquent or criminal behavior [including status offenses, running away, selling drugs: NOT personal substance use]? 1 - yes 2 - no
a. Him _____b. Her _____

14. How mad were you? Would you say:

Very mad	Mad	Somewhat mad	Hardly mad	Not at all mad
5	4	3	2	1

15a. How often do you think that your partner might physically hurt you?

CARD 8

4 or more times per week	1-3 times per week	1-3 times per month	More than twice a year but less than once a month	1-2 times per year	Never
6	5	4	3	2	1

b. Have you or your partner ever done anything physical to each other, such as pushing or slapping on purpose - not playfully or by accident? 1 - yes 2 - no

IF NO, skip to #16a.

c. Using this card, what was the effect of these behaviors on you?
CARD 9

extremely negative effect	moderately negative effect	mildly negative effect	no effect
4	3	2	1

d. What do you think the effect was of these behaviors on your partner?
CARD 9

extremely negative effect	moderately negative effect	mildly negative effect	no effect
4	3	2	1

e. What do you think the effect was of these behaviors on the relationship?
CARD 9

extremely negative effect	moderately negative effect	mildly negative effect	no effect
4	3	2	1

f. In general, who is physically aggressive first?

Always or almost always him/her	Usually him/her	50:50	Usually me	Always or almost always me
5	4	3	2	1

16a. Has your partner ever physically hurt you? 1 - yes 2 – no

[IF NO, SKIP TO #33a FOR PARTNERS; <u>OR</u> PAGE 29, Q. # 28 for TC's]

16b. How many times has your partner physically hurt you? __ __ __ #

16c. Has your partner ever physically hurt you in the past 12 months? 1 - yes 2 – no

If no, skip to #17a.
16d. How many times has your partner hurt you in the past 12 months? ____ ____ ____#

17a. Using this card again, how often has your partner ever physically hurt you, not just in the past 12 months, but ever? ___

CARD 8

4 or more times per week	1-3 times per week	1-3 times per month	More than twice a year but less than once a month	1-2 times per year	Never
6	5	4	3	2	1

17b. Still looking at this card, how often in the past 12 months has your partner physically hurt you?

____

[**IF F-Peer LESS THAN 18 YEARS OLD, SKIP TO #33a.**]

18a. Have you had to go to a doctor or emergency room because of anything that your partner did?

1 - yes 2 - no

[If no, skip to # 19a.]

b. How many times? __ __?

c. How would you describe the treatment that you received? Would you say:

1 it ended up being a minor injury for which no treatment was given
2 it required treatment from a doctor or nurse in the emergency room
3 it required hospitalization
4 other, describe:_____

d. How long did it take you to recover from the injuries? ___ ___days ___ ___ weeks

e. Do you have any permanent or lingering effects from this injury? 1 - yes 2 - no

[IF NO, skip to #19a.]

Code

f. Please describe the effects:_____

(___ ___)

19a. What are the worst injuries that you've had from anything your partner did to you?_____

_____(code ___ ___)

19b. [Interviewer: Was an occasion described? 1 - yes 2 - no]

[IF NO, skip to #33a.]

20. Do you think that this happened because of horseplay between the two of you, or do you think that s/he did it on purpose?

1. on purpose 2. horseplay/accident

INTERVIEWER: If above description seems mostly accidental (e.g. a car accident) ask #21a; otherwise skip to #22b.

21a. Was there another time when you were physically hurt because of something your partner did?

1 - Yes 2 – No

IF NO, Skip to #22b.

b. Describe fully_____(code___ ___)

22a. Do you think that this happened because of horseplay between the two of you, or do you think that s/he did it on purpose?

1. on purpose 2. horseplay/accident

b. **INTERVIEWER: Pick least accidental occasion of #s 19 and 21.**
***Record choice:* ____**

23.	Did s/he push, slap, or punch you	1 - yes	2 - no
24.	Cause you to grab yourself in pain	1 - yes	2 - no
25.	Were you knocked down	1 - yes	2 - no
26.	Were you bruised	1 - yes	2 - no
27.	Were you cut or bleeding	1 - yes	2 - no
28	Were you unconscious	1 - yes	2 - no
29.	Did you visit the doctor or hospital	1 - yes	2 - no
30.	Did you have broken bones, broken teeth, or injuries to your eyes, nose, or ears.	1 - yes	2 - no

31. Other (specify_____) 1 - yes 2 - no

32a. Was a weapon involved? 1 - yes 2 - no

32b. If yes, what was the weapon?

1 Knife, sharp object
2 Blunt object
3 B-B gun
4 Handgun or other gun with bullets.

5 Other, describe (_____)

32c. Did this incident happen in the past 12 months? 1 - yes 2 - no

IF NO, ASK # 32d.

IF YES, FOR TC, SKIP TO REPORT ON PARTNER'S DISCIPLINE, Page 29, Q. #28.

IF YES, FOR PARTNER, SKIP TO #33a.

32d. Was there a time in the past 12 months when you've gotten an injury because of something your partner did to you? 1 - yes 2 - no

If NO, FOR PARTNER, skip to #33a.
If NO, FOR TC, SKIP TO REPORT ON PARTNER'S DISCIPLINE, Page 29, Q. #28.
IF YES,
DESCRIBE:_____
___
_____
___

32e. Do you think that this happened because of horseplay between the two of you, or do you think that s/he did it on purpose?

1. on purpose 2. horseplay/accident

32f.	Did s/he push, slap, or punch you	1 - yes 2 - no
32g.	Cause you to grab yourself in pain	1 - yes 2 - no
32h.	Were you knocked down	1 - yes 2 - no
32i.	Were you bruised	1 - yes 2 - no
32j.	Were you cut or bleeding	1 - yes 2 - no
32k.	Were you unconscious	1 - yes 2 - no
32l.	Did you visit the doctor or hospital	1 - yes 2 - no
32m.	Did you have broken bones, broken teeth, or injuries to your eyes, nose, or ears.	1 - yes 2 - no

32n. Other (specify_____) 1 - yes 2 - no

32o. Was a weapon involved? 1 - yes 2 - no

32p. If yes, what was the weapon?
1 Knife, sharp object

2 Blunt object
3 B-B gun
4 Handgun or other gun with bullets.
5 Other, describe (_____)

For TC, Skip to #28, page 29.

33a. In the past year, what is the worst injury you've gotten from a man or boy, other than
[**Name of TC**]: Describe fully (_____)

b. **[Interviewer: Was an injury reported? 1 - yes 2 - no]**
[IF NO INJURY, SKIP TO Q. #44.]

34. Did he/they push, slap, or punch you 1 - yes 2 - no
35. Cause you to grab yourself in pain 1 - yes 2 - no
36. Were you knocked down 1 - yes 2 - no

37. Were you bruised 1 - yes 2 - no

38. Were you cut or bleeding 1 - yes 2 - no

39. Were you unconscious 1 - yes 2 - no

40. Did you visit the doctor or hospital 1 - yes 2 - no

41. Did you have broken bones, broken teeth, or injuries to your eyes, nose, or ears 1 - yes 2 - no

42. Other (specify_____)

1 - yes 2 - no

43a. Was a weapon involved? 1 - yes 2 - no

b. If yes, what was the weapon?

1 Knife, sharp object
2 Blunt object
3 B-B gun
4 Handgun or other gun with bullets.
5 Other, describe (_____)

44. How many times in the past 3 years have you been physically hurt or injured by a man or boy? ___ ___ # (other than TC)

[**If zero, skip to Substance Consumption, page 17.**]

45. How many different males hurt or injured you in the past 3 years? ___ ___# (other than TC)

46. How many of these were partners or boyfriends? ___ ___ # (other than TC)

Conflict Tactics Scale (Straus; CTS2)

No matter how well a couple gets along, there are times when they disagree, get annoyed with the other person, want different things from each other, or just have spats or fights because they are in a bad mmod, are tired, or for some other reason. Couples also have many different ways of trying to settle their differences. This is a list of things that might happen when you have differences. Please circle how many times you did each of these things in the past year, and how many times your partner did them in the past year. If you or your partner did not do one of these things in the past year, but it happened before that, circle "7."

How often did this happen?

1 = Once in the past year
2 = Twice in the past year
3 = 3-5 times in the past year
4 = 6-10 times in the past year
5 = 11-20 times in the past year
6 = More than 20 times in the past year
7 = Not in the past year, but it did happen before
0 = This has never happened

1.	I showed my partner I cared even though we disagreed.	1 2 3 4 5 6 7 0
2.	My partner showed care for me even though we disagreed.	1 2 3 4 5 6 7 0
3.	I explained my side of a disagreement to my partner.	1 2 3 4 5 6 7 0
4.	My partner explained his or her side of a disagreement to me.	1 2 3 4 5 6 7 0
5.	I insulted or swore at my partner.	1 2 3 4 5 6 7 0
6.	My partner did this to me.	1 2 3 4 5 6 7 0
7.	I threw something at my partner that could hurt.	1 2 3 4 5 6 7 0
8.	My partner did this to me.	1 2 3 4 5 6 7 0
9.	I twisted my partner's arm or hair.	1 2 3 4 5 6 7 0
10.	My partner did this to me.	1 2 3 4 5 6 7 0
11.	I had a sprain, bruise, or small cut because of a fight with my partner.	1 2 3 4 5 6 7 0
12.	My partner had a sprain, bruise, or small cut because of a fight with me.	1 2 3 4 5 6 7 0

13. I showed respect for my partner's feelings about an issue. 1 2 3 4 5 6 7 0

14. My partner showed respect for my feelings about an issue. 1 2 3 4 5 6 7 0

15. I made my partner have sex without a condom. 1 2 3 4 5 6 7 0

16. My partner did this to me. 1 2 3 4 5 6 7 0

17. I pushed or shoved my partner. 1 2 3 4 5 6 7 0

18. My partner did this to me. 1 2 3 4 5 6 7 0

19. I used force (like hitting, holding down, or using a weapon) to make my partner have oral or anal sex. 1 2 3 4 5 6 7 0

20. My partner did this to me. 1 2 3 4 5 6 7 0

21. I used a knife or gun on my partner. 1 2 3 4 5 6 7 0

22. My partner did this to me. 1 2 3 4 5 6 7 0

23. I passed out from being hit on the head by my partner in a fight. 1 2 3 4 5 6 7 0

24. My partner passed out from being hit on the head in a fight with me. 1 2 3 4 5 6 7 0

25. I called my partner fat or ugly. 1 2 3 4 5 6 7 0

26. My partner called me fat or ugly. 1 2 3 4 5 6 7 0

27. I punched or hit my partner with something that could hurt. 1 2 3 4 5 6 7 0

28. My partner did this to me. 1 2 3 4 5 6 7 0

29. I destroyed something belonging to my partner. 1 2 3 4 5 6 7 0

30. My partner did this to me. 1 2 3 4 5 6 7 0

31. I went to a doctor because of a fight with my partner. 1 2 3 4 5 6 7 0

32. My partner went to a doctor because of a fight with me. 1 2 3 4 5 6 7 0

33. I choked my partner. 1 2 3 4 5 6 7 0

34. My partner did this to me. 1 2 3 4 5 6 7 0

35. I shouted or yelled at my partner. 1 2 3 4 5 6 7 0

36. My partner did this to me. 1 2 3 4 5 6 7 0

37. I slammed my partner against a wall.	1 2 3 4 5 6 7 0
38. My partner did this to me.	1 2 3 4 5 6 7 0
39. I said I was sure we could work out a problem.	1 2 3 4 5 6 7 0
40. My partner was sure we could work it out.	1 2 3 4 5 6 7 0
41. I needed to see a doctor because of a fight with my partner, but I didn't.	1 2 3 4 5 6 7 0
42. My partner needed to see a doctor because of a fight with me, but didn't.	1 2 3 4 5 6 7 0
43. I beat up my partner.	1 2 3 4 5 6 7 0
44. My partner did this to me.	1 2 3 4 5 6 7 0

Relationship Type and Length

2. How long have you known each other? ___ ___ years ___ ___ months

3a. How long have you been seeing each other as a couple - that is, when did you first start dating or get involved? Please tell me what year and month it was.
___ ___ /___ ___
mo yr

b. Have you had any periods since then when you broke up for longer than a 24-hour period?
1 - yes 2 - no

IF NO, skip to #3n.

c. How many break-ups or separations have you had? ____ ____ # break-ups

d. When did the break-up occur?

e. How long did it last?

	When? Month/Year	How long? Weeks
Break-up #1:	d.___ ___/___ ___	e.___ ___ ___
Break-up #2:	f.___ ___/___ ___	g.___ ___ ___
Break-up #3:	h.___ ___/___ ___	i.___ ___ ___
Break-up #4:	j.___ ___/___ ___	k.___ ___ ___
Break-up #5:	l.___ ___/___ ___	m.___ ___ ___

3n. [Interviewer: Has this TC done his LO interview for this wave? 1 - yes 2 - no]

IF NO, skip to #4.

3o. [Interviewer: What was the date of the LO interview for this TC for this wave?]
___ ___/___ ___/___ ___
Mo Day Year

3p. [Interviewer: Was TC involved with this female partner at that time?]
0 - yes, but they were going through a break-up period at that time
1 - yes
2 - no

4. Looking at this card, which answer best describes your relationship?

Card 1

1. Dating couple (boyfriend--girlfriend)
2. Live together
3. Engaged/not living together
4. Engaged/live together
5. Married
6. Used to date/were a couple within last 6 months

7. Other [describe:_____]

5. **IF LIVING TOGETHER OR MARRIED:**
   How long have you been living together?
   __ __years __ __months
6. **IF MARRIED**:
   How long have you been married to each other?
   __ __years __ __months
7. Would you describe your relationship as:

Very close	Quite close	Casual	Very casual
4	3	2	1

8. How often do you see each other? Would you say:

Live Together	Every Day	Every couple of days	1 -2 times per week	1 - 3 times per month	Less than Once per month
0	1	2	3	4	5

Center for Epidemiologic Studies Depression Scale (CES-D), NIMH

Below is a list of the ways you might have felt or behaved. Mark how often you have felt this way during the past week.

During the Past Week

Rarely or none of the time (less than 1 day)

Some or a little of the time (1-2 days)

Occasionally or a moderate amount of time (3-4 days)

Most or all of the time (5-7 days)

1. I was bothered by things that usually don't bother me.
2. I did not feel like eating; my appetite was poor.
3. I felt that I could not shake off the blues, even with help from my family or friends.
4. I felt I was just as good as other people.
5. I had trouble keeping my mind on what I was doing.
6. I felt depressed.
7. I felt that everything I did was an effort.
8. I felt hopeful about the future.
9. I thought my life had been a failure.
10. I felt fearful.
11. My sleep was restless.
12. I was happy.
13. I talked less than usual.
14. I felt lonely.
15. People were unfriendly.
16. I enjoyed life.
17. I had crying spells.
18. I felt sad.
19. I felt that people disliked me.
20. I could not get "going".

SCORING: zero for answers in the first column, 1 for answers in the second column, 2 for answers in the third column, 3 for answers in the fourth column. The scoring of positive items (4, 8, 12, and 16) is reversed. Possible range of scores is zero to 60, with the higher scores indicating the presence of more symptomatology.

APPENDIX C

OBSERVATIONAL CODING WORKSHEET AND MANUAL

Worst Fight Topic Code

01 Did one of them leave because of the argument? (took off for Medford, stormed out of the house)

IF YES:

a. ____ He left because of the argument 1 = yes 2 = no

b. ____ She left because of the argument

What was the fight about? (circle the number of all topics that apply)
(answer scale for follow ups: 1 = yes 2 = no/no indication)

02 **Can't remember what it was about**/topic not specified (but s/he definitely remembers there was a fight)

03 **Jealousy**

a. ____ he was jealous

b. ____ she was jealous

04 **About ex-partners**

a. ____ about his ex-partner

b. ____ about her ex-partner

05 **About chores/responsibilities – not doing share, not shouldering responsibilities enough (e.g. lazy)**

a. ____ about him not helping/doing enough

b. ____ about her not helping/doing enough

06 **About friends/because of friends**

a. ____ about his friends

b. ____ about her friends

07 **Lack of love, commitment, caring, incompatibility**

a. ____ he feels she isn't committed enough/he feels she doesn't show enough love or effort

b. ____ she feels he isn't committed enough/she feels he doesn't show enough love or effort

08 **Out somewhere and one person wanted to leave & the other didn't**

a. ____ he wanted to leave and she didn't

b. ____ she wanted to leave and he didn't

09 Break up/separation related

a. ____ he wanted to break up or separate

b. ____ she wanted to break up or separate

10 Lying, deceiving, trust issues, cheating

a. ____ he accused her of lying, cheating, breaking trust c.If yes, was the accusation true? _ 1 yes definitely

b. ____ she accused him of lying, cheating, breaking trust d.If yes, was the accusation true? _2 not definite

11 About one or both of their substance use (drugs, drinking, smoking)

a. ____ about his substance use c. If yes, specify substance: _____ (___)

b. ____ about her substance use d. If yes, specify substance: _____ (___)

1 smoking
2 chewing
3 alcohol
4 marijuana
5 drugs
6 multiple

12 About other family members (parents, siblings)

13 About money

14 About work/school

15 About children (how to parent, how to discipline)

16 About plans/ one partner's desire to do something

17 Amount of time spend together

18 Staying out too late and/or not calling

19 Sex

20 Interpersonal conflict/nagging/resentful/got on each other's nerves/not getting along in general

21 Unskilled behavior (s/he was rude, said demeaning things, was acting dumb in public, made a poor decision (like bringing a dog home without discussing it first)

a. ____ he demonstrated unskilled behavior

b. ____ she demonstrated unskilled behavior

22 Other topic, specify:_____

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