

Bowling Green State University
The Center for Family and Demographic Research

<http://www.bgsu.edu/organizations/cfdr>

Phone: (419) 372-7279 cfdr@bgsu.edu

2014 Working Paper Series

**ECONOMIC STRAINS AND INTIMATE PARTNER VIOLENCE
IN YOUNG ADULTHOOD**

Jennifer E. Copp*
Peggy C. Giordano
Wendy D. Manning
Monica A. Longmore

Bowling Green State University

* Direct correspondence to Jennifer E. Copp, Bowling Green State University, Williams Hall, Bowling Green, OH 43403. Email: jcopp@bgsu.edu. Phone: (419) 372-9972. Fax: (419) 372-8306. This research was supported by grants from The Eunice Kennedy Shriver National Institute of Child Health and Human Development (HD036223 and HD044206), the Department of Health and Human Services (5APRPA006009), the National Institute of Justice, Office of Justice Programs, U. S. Department of Justice (Award Nos. 2009-IJ-CX-0503 and 2010-MU-MU-0031), and in part by the Center for Family and Demographic Research, Bowling Green State University, which has core funding from The Eunice Kennedy Shriver National Institute of Child Health and Human Development (R24HD050959). The opinions, findings, and conclusions or recommendations expressed in this publication/program/exhibition are those of the authors and do not necessarily reflect the official views of the Department of Justice or National Institutes of Health.

Abstract

Family scholars have demonstrated that economic conditions influence marital quality and relationship instability. Similarly, researchers have identified low income and poverty as important risk factors for intimate partner violence (IPV). Yet limited work has examined how economic factors influence the use of violence within the romantic context, particularly during young adulthood. Using the Toledo Adolescent Relationships Study (n = 928), we examine the influence of economic and career considerations as specific sources of conflict on IPV among a sample of young adults. In addition to examining the role of economic factors, we assess whether cultural forces (attitudinal acceptance of IPV) contribute to additional variation in IPV risk. Findings suggest that the specific content of couples' disagreements is associated with conflict escalation. Furthermore, the results highlight the need to direct attention to other structural and cultural influence processes. We discuss the implications of our findings for intervention and prevention efforts.

Although the economic recession and ongoing economic crisis has affected millions of Americans, it has been particularly devastating for young adults. As businesses began to close their doors, the young adult population was among the last hired and first fired. According to a recent report, only about 41% of 18- to 29-year-olds were employed full-time, and of those employed, less than a third were satisfied with their current income (Pew Research Center, 2010). In the family literature, there is a long line of research underscoring the influence of economic conditions (i.e., poverty, unemployment, economic hardship) on marital quality and relationship instability (see Conger, Conger, & Martin, 2010 for a review), providing evidence of a link between socioeconomic status and the stability of both marital and cohabiting relationships (Amato, Booth, Johnson, & Rogers, 2007). Moreover, economic conditions may play an especially important role in the development and maintenance of healthy romantic relationships in young adulthood (Hardie & Lucas, 2010).

A key and consequential indicator of poor relationship quality is intimate partner violence (IPV). Researchers consistently found IPV to be more prevalent among lower income individuals and those experiencing employment instability (e.g., Fox & Benson, 2006; Golden, Perriera, & Durrance, 2013; Rennison & Welchans, 2000). IPV is also particularly common during the young adult period; approximately 30% of individuals report exposure to partner violence during young adulthood (Cui, Gordon, Ueno, & Fincham, 2013). Yet with few exceptions, scholars have failed to fully integrate these bodies of literature to assess the relationship between socioeconomic status and IPV, particularly in young adulthood. DeMaris and colleagues (2003) found that relationship strains—including financial considerations—were associated with verbal conflict which, in turn, heightened IPV risk. Others have drawn on a strain perspective to understand the influence of economic disadvantage on IPV (e.g., Benson,

Fox, DeMaris, & Van Wyk, 2003). Thus there is some direct evidence, and more often an underlying assumption, of a link between financial strain and couple-level interaction, but how the content of that interaction or the specific concerns that couples confront regarding economic issues influences IPV is less well understood.

Using data from the Toledo Adolescent Relationships Study (TARS), this study extends previous work by linking research on family processes and IPV to examine the influence of economic sources of conflict on IPV among a sample of young adults. Most research linking economic hardship or financial strains to relationship processes conceptualizes such concerns in terms of relatively objective considerations including the income-to-needs ratio or a roster of negative financial life events (e.g., job loss, experiencing foreclosure, going on public assistance). Such considerations, however, do not capture the full range of financial- or career-related sources of conflict in intimate relationships. Particularly in young adult relationships where partners may be on separate timetables when it comes to finding a long-term career or establishing a family, it is important to consider more nuanced measures of financial strain, including the extent to which individuals resent providing financial assistance to their partners or whether differences regarding drive or ambition are a common source of arguments. In this study, we use recently collected data to examine how economically related conflicts influence IPV among young adults. In addition to examining the role of structural factors, we assess the extent to which cultural forces (attitudinal acceptance of IPV) contribute to IPV risk.

Background

Socioeconomic Status and Relationship Conflict

Economic problems are a primary source of stress in families (Edin & Kissane, 2010) with important implications for family processes (McLoyd, 1998). Conger and colleagues (1999)

suggested that economic problems "...may be an even more important source of stress for a couple than are difficulties in their marriage" (p. 68). Consistent with the family stress model, Kinnunen and Pulkkinen (1998) found that objective measures of economic conditions (e.g., employment status) influenced feelings of financial strain, which, in turn, led to hostile interaction between partners. In response to the consistent finding that the influence of economic hardship on relationship discord is higher among men (e.g., Conger, Elder, Lorenz, & Conger, 1990), a recent study suggested that this relationship may be related to women's perception of their partners during periods of financial strain (Williams, Cheadle, & Goosby, 2013). Thus, the current study includes attention to the respondents' subjective interpretations of their partners, including the extent to which disagreements center on the partners' lack of drive or ambition.

Several scholars have considered economic conditions in relation to IPV, most frequently citing low income and poverty as important risk factors (e.g., Capaldi et al., 2012; Rennison & Welchans, 2000). Men's employment and work-related stress have also been linked to male-to-female partner violence (Cascardi & Vivian, 1995; Jasinski, Asdigian, & Kantor, 1997), as has residence in a high-poverty neighborhood (Cunradi, Caetano, Clark, & Schafer, 2000). Given the relevancy of economic factors for IPV documented across a number of studies, researchers have begun to examine the broader social context as it relates to IPV experience. Results of that research indicate that community-level economic factors, including tract-level unemployment, economic disadvantage, and poverty, increase community rates of IPV (e.g., DeJong, Pizarro, & McGarrell, 2011; Diem & Pizarro, 2010; Miles-Doan, 1998) leading scholars to suggest that neighborhood contexts of disadvantage encourage the adoption of a set of attitudes accepting of violence. Thus, "individuals in these neighborhoods are likely to react to situations with violence

both inside and outside the home” (DeJong et al., 2011: 373). Most of these studies, however, focus on objective measures of financial conditions and draw primarily on samples of adults.

The family literature makes an important contribution to this area of scholarship by moving beyond examination of the general link between poverty and relationship conflict. Berkowitz’s (1989) reformulation of the frustration-aggression hypothesis, the foundation of the family stress model, posits that aversive experiences foster feelings of negative affect, which may produce “aggressive inclinations” (p. 71). Consistent with this theorizing, scholars have suggested that economic stress influences marital conflict (Conger, Reuter, & Elder, 1999). Beyond marital conflict (i.e., criticism, defensiveness, insensitivity), it seems likely that aggressive inclinations may quickly escalate to violence. This notion has been examined in relation to partner violence (e.g., Winstok, 2013), most often conceptualizing partner violence as reactive in nature—as an angry or hostile reaction to an experienced stressor. Few scholars, however, have extended this line of inquiry to the study of economic conditions and partner violence. An exception is Fox et al. (2002) who emphasize that resources are related to partner violence; using data from the National Survey of Families and Households (NSFH) to test the family stress model, the authors found that factors including the nature of one’s employment and objective measures of financial adequacy increase the risk of IPV. Although these findings suggest that the form of the conflict has implications for IPV, they shed little light on whether the content of such disputes further shapes the experience of partner violence.

Research on partner violence has suggested that marital conflict (Stith, Green, Smith, & Ward, 2008) and the frequency of arguments (DeMaris et al., 2003) are both related to IPV. These findings imply an association between economic hardship and IPV via interactional patterns at the couple-level. Drawing on the family stress model, scholars have identified a

number of forms of couple interaction that heighten (i.e., externalizing behaviors, hostility, disagreements) or buffer (i.e., marital support, effective couple problem solving, quality time) relationship distress (Conger et al., 1999; Conger et al., 2002; Gudmunson et al., 2007). Further, the forms of couple interaction are more salient mediators of the relationship between financial strain and marital instability than distress at the individual level (Gudmunson et al., 2007). Thus, researchers have focused considerable attention on the form of couple conflict, often to the neglect of the content of the interaction (see Giordano, Copp, Longmore, & Manning, 2013 for an exception), suggesting that hostile patterns of interaction fuel conflict, and promote violent escalation. It is important to consider, however, the extent to which the content of the disagreements themselves, including conflict due to financial/career concerns, influences IPV risk.

Young Adult Romantic Relationships

Most empirical investigations have focused on the associations between economic problems and marital functioning (e.g., Amato et al., 2007; Conger et al., 2002; Stanley, Amato, Johnson, & Markman, 2006). Thus, an important question is whether the link between socioeconomic status and relationship quality persists across different types of relationships, including cohabiting and dating relationships that predominate during the young adult period. Comingling of resources across these relationship types likely varies, influencing the degree to which relationship strains center on economic issues.

Prior research has identified a link between joint banking and relationship quality, indicating that merged finances represent a joint investment which enhances relationship stability and commitment (Becker, Landes, & Michael, 1977; Brines & Joyner, 1999; Kenney, 2004; Treas, 1993), and thus most of the work on issues of economic dependency or resource

allocation is limited to samples of married and cohabiting adults. Theoretically, merging finances in intimate relationships may enhance relationship quality by increasing commitment (Steuber & Paik, 2013); however, this does not include the potential for other motivations to pool resources. For some couples, resource pooling may be a survival strategy to overcome dire financial situations (Addo, 2014). That is, rather than a marker of commitment, pooled resources may act as a marker of codependence. Although these types of material investments may contribute to relationship stability over time (Rhoades, Stanley, & Markman, 2010; Stanley & Markman, 1992), they may also foster feelings of being unable to leave a relationship or “feeling trapped” (Knopp, Rhoades, Stanley, & Markman, 2014).

Further, even where merged finances do in fact represent greater commitment, they may increase the potential for conflict. Subjective considerations also potentially come into play. For example, young adult relationships are often uncertain and relational asymmetries may further influence the extent of financially motivated relationship strain; the economic contributions (real or perceived) of one member of the couple may supersede the other’s, fueling feelings of resentment. Finally, given that men have historically taken on the role of financial provider, and husbands have generally governed financial decisions within households (Dew & Dakin, 2011), the weight of financial strain may fall more heavily on their shoulders. Given the instability of early relationships and the economic vulnerability of the young adult population, feelings of resentment about financial assistance—or resource sharing in general—may represent a common source of friction among young adult couples. This contrasts with the view that resource sharing necessarily reflects positively on the quality of the relationship (i.e., as an index of commitment). Accordingly, this study includes indicators of pooled income and relational asymmetry.

Research on emerging adults and stress indicates that the transition to adulthood is an anxiety-ridden period during which individuals juggle many roles—often with some difficulty. This is particularly true among individuals from poor or working class backgrounds who have fewer resources and sources of support. Thus, in general, we would expect individuals in relationships to experience less strain during the transition to adulthood because they may rely on their partners, to a certain extent, to buffer any of the negative consequences associated with the transition. Nevertheless, financial strains provide a unique example with potentially different consequences for those involved in intimate relationships, especially among the most disadvantaged. Rather than relying on one another only for socioemotional support, partners may rely on each other for direct financial support. Resource management and the provision of financial assistance may become sources of contention, particularly when one individual is unable ‘to pull his/her own weight’ and thus contributes less financially to the relationship. Feelings of not living up to one’s potential are distressing, but having a partner available to provide reassurance is an asset. When the financial strain is such that it provides a source of conflict between partners, however, the risk of IPV is potentially heightened.

Attitudes toward IPV

In addition to relational considerations, it is important to acknowledge the role of other attitudinal or cultural forces, including beliefs about the acceptability of IPV. Based on early models of social structural stress and marital violence (Straus, 1980), it seems likely that attitudes or beliefs about the use of violence condition the association between economic distress and partner violence. Straus (1980) suggests that it is unlikely that people will respond to stress with violence “unless this is part of the socially scripted method of dealing with stress and frustration” (p. 231). Conflict is a part of all relationships, and in this current economic climate,

financial concerns are relatively common. Yet, whether economic pressures promote conflict that escalates to the point of violence likely depends on one's attitudes toward violence.

Individuals facing economic strains as young adults may have experienced bouts of economic hardship at earlier points in the life course, and may have been exposed to more undesirable styles of interaction, including violence. Consistent with research on the intergenerational transmission of IPV, social learning explanations of partner violence suggest that individuals exposed to violence in the family of origin are more likely to tolerate violence in their own adult relationships (Akers, 1998; Bandura, 1977). Social learning theories also describe more indirect mechanisms by which attitudes accepting of violence may be fostered (Akers, 1998). That is, although some learning may be the result of direct imitation, more often individuals observe and internalize complex behavioral scripts. Repeat exposure to aggressive methods of conflict resolution, particularly where individuals understood their parents' relationships to provide a healthy model (Rhoades, Stanley, Markman, & Ragan, 2012) or when such methods resulted in positive consequences (Bandura 1973), heightens the risk that individuals adopt certain strategies that serve to guide their use of violent behavior in intimate relationships. Finally, individuals may have learned more directly—via modeling in the family of origin—that aggression is understandable as a response to the specific strains associated with economic hardship. Thus, attitudes toward IPV may be directly related to the odds of IPV, but they may also amplify the effect of economic strains on relationship violence. Moreover, the link between attitudes and IPV may be stronger among those from disadvantaged backgrounds.

Theoretical Perspective

This investigation is guided by a life course framework and draws on elements of the family stress model of economic hardship (see Conger et al., 2010 for a review) to further

disentangle the associations between economic strains and IPV. According to the concept of linked lives, individuals are influenced by the experiences of the individuals with whom they maintain social relationships throughout the life course (Elder, 1994; Elder, George, & Shanahan, 1996), including lifelong links with family, as well as connections developed to friends, romantic partners, coworkers, and others. Strains experienced in these contexts are distressing for the individual exposed to them, but given the degree of enmeshment of individuals occupying these roles, “adversities befalling one person within the contexts of such roles are likely to reverberate through the role set” (Pearlin, 2010). Yet, economic strains have the potential to be more directly passed from one partner to the other—particularly in relationships with an expectation of shared financial responsibility. That is, when financial problems arise and financial commitments are unmet, both members of the couple likely feel the repercussions.

Prior research has shown that compared to other sources of conflict, financial disagreements tend to be more intense (Papp, Cummings, & Goeke-Morey, 2009), and may provoke more negative conflict tactics (Dew & Dakin, 2011). According to the family stress model, economic pressure influences marital distress directly, as well as through a number of family processes including parental emotional distress and behavioral problems, marital conflict, and relationship quality (Conger et al., 2010; Conger & Elder, 1994). Consequently, couples experiencing economic pressures are at increased risk for emotional distress, exhibit fewer supportive behaviors, and increases in negative interactions and conflict (Conger et al., 2010). There is widespread support for the family stress model, which suggests that it provides a sound explanation of the stress processes linking economic strains to relationship functioning. A limitation of this model, however, is that it does not directly acknowledge the source of the

marital conflict, but rather suggests that those who experience economic strain use—or adopt—more negative styles of interaction. Yet, among couples experiencing financial strain, there is a very concrete source of contention in the relationship—money.

In sum, the family stress model provides an important framework for understanding the processes through which financial strain influences couple-level interaction. Yet, despite its focus on the interactional patterns of economically disadvantaged couples, the model falls short of providing a truly dyadic understanding of relationship discord. Certainly, the experience of economic hardship is likely to result in a number of negative consequences, including feelings of emotional distress. Nevertheless, these individual responses to financial strain do not inherently affect patterns of interaction. There are likely specific areas of discord within the relationship (i.e., the allocation of scarce resources, perceptions of lack of drive/ambition, how to pool resources), however, that become the site of conflict. In the absence of a mismatch on these potential sites of conflict, economically strained couples may not experience heightened levels of discord. Thus, to fully understand the circumstances under which relationship conflict develops as a result of financial strains, an important next step entails a more localized approach focused on the content of these interactions (Giordano et al., 2013; Stanley, Markman, & Whitton, 2002).

Current Investigation

In the current investigation, we used data from the Toledo Adolescent Relationships Study (TARS) to examine the association between economic strains and IPV, controlling for a number of well-documented risk factors. Much of what we know about the association between stress and IPV comes from early work on social stress and family violence (see Straus, 1980). The focus on economic strains moves in a more fundamental way from a traditional stress model. Although communication practices and conflict more generally are important considerations, it is

also critical to consider the content of the disagreements themselves. The current study examines the influence of conflict due to finances on IPV, including the extent to which feeling resentment about financial assistance to a partner increases the odds of violence. This approach attempts to tap the degree to which the couple is characterized by stressors in contrast to much of the early literature which more directly modeled the influence of general discord on IPV.

In addition, most studies examining the influence of economic strain on relationship functioning focus on samples of married couples. Yet, across relationship types (married, cohabiting, and dating), there is variation in the extent to which individuals pool resources or provide instrumental support. Further, many of the studies of pooled income and relationship quality focus on joint banking (e.g., Addo & Sassler, 2010; Treas, 1993; Steuber & Paik, 2013). Particularly among more disadvantaged couples, bank accounts are less common (Addo & Sassler, 2010). Thus, in order to provide a more comprehensive portrait of the factors contributing to IPV risk among a sample of young adults, we include relational asymmetry and pooled income in predictive models. Additionally, we assess the influence of economic strains on the log odds of violence net of attitudes toward IPV and a roster of traditional correlates. In subsequent models, we examine attitudes toward IPV as a moderator of the association between economic strains and IPV.

We expect that both economic strains and attitudes toward IPV exert a positive influence on the odds of relationship violence at the zero order. Moreover, we expect these relationships to persist net of controls for prior victimization, as well as taking into account sociodemographic, adult status, and relationship characteristics. Additionally, we expect attitudes toward IPV to exert an independent effect on the odds of IPV, net of other factors. Finally, we test a series of interactions. We hypothesize that the influence of economic strains on IPV will be stronger

among those from disadvantaged backgrounds, and moreover, that the influence of economic strains on IPV will vary across levels of endorsement of attitudes toward IPV. Additionally, we expect the observed relationships between economic strains and IPV to differ for men and women. Specifically, given differences in traditional gender role expectations regarding the provision of support, we expect the associations between economic strains and IPV to be stronger for men.

In our multivariate models, we included a number of factors identified as correlates of economic strains and relationship violence in previous research. These include traditional social learning factors, as well as a broad range of sociodemographic, adult status, and relationship characteristics. Experiencing coercive parenting in the family of origin is a risk factor for partner violence (e.g., Ehrensaft et al., 2003; Smith et al., 2011). Additionally, research has highlighted the extent to which violence in adolescent romantic relationships is associated with IPV in young adulthood (Cui et al., 2013). Relationship characteristics, including relationship status and relationship duration, are associated with partner violence (Brown & Bulanda, 2008; Kenney & McLanahan, 2006). Parenthood increases IPV risk (Vest, Catlin, Chen, & Brownson, 2002). Finally, socioeconomic factors including income, neighborhood poverty, education, and employment status influence the experience of partner violence (see Capaldi et al., 2012). Thus, we have included these variables as controls in our models estimating the odds of IPV.

Data and Methods

This research draws on data from the Toledo Adolescent Relationships Study (TARS), which is based on a stratified random sample of 1,321 adolescents and their parents/guardians. The TARS data were collected in the years 2001, 2002, 2004, 2006, and 2011. The proposed analyses will rely on structured interviews conducted at waves 1 through 5.

The sampling frame of the TARS study encompassed 62 schools across seven school districts. The initial sample was drawn from enrollment records for 7th, 9th, and 11th grades, but school attendance was not a requirement for inclusion in the study. The stratified, random sample was devised by the National Opinion Research Center and includes over-samples of black and Hispanic adolescents. The initial sample included 1,321 respondents and wave 5 retained 1,021 valid respondents, or 77% of wave 1. Respondents' ages ranged from 12 to 19 years of age at wave 1, to 22 to 29 years of age at wave 5. The analytic sample (n = 928) consisted of all respondents from the fifth interview with a few exclusions including respondents who did not report on a current/most recent relationship (n = 70) and those reporting their race as "other" (n = 23).

Dependent Variable

Relationship violence is based on responses to twelve items from the revised Conflict Tactics Scale (CTS2) (Straus, Hamby, Boney-McCoy, & Sugarman, 1996), including whether the respondent had "thrown something at," "twisted arm or hair," "used a knife or gun," "punched or hit with something that could hurt," "choked," "slammed against a wall," "beat up," "burned or scalded on purpose," "kicked," "pushed, shoved, or grabbed," "slapped in the face or head with an open hand," and "hit" in reference to experiences with the current/most recent partner (alpha = .91). These questions were asked at the time of the fifth interview in relation to experiences with the current/most recent partner and referenced both victimization and perpetration experiences. We used a dichotomous measure of relationship violence, distinguishing between those who reported *any* violent behaviors (perpetration, victimization, and mutual) and those who reported no violence (1 = IPV, 0 = no IPV).

Independent Variables

Economic Strains. *Conflict due to finances* was a four-item scale ($\alpha = .68$) based on responses to a series of questions regarding the frequency of fights about the following issues: “money issues,” “I’m not doing anything with my life,” “He/she’s not doing anything with his/her life,” and the respondents level of agreement that his/her partner “should have more ambition.” *Financial resentments* was taken from eight items ($\alpha = .83$) including: “I make him/her feel bad when I help him/her financially,” “He/she expects me to help him/her out financially,” “I never let him/her forget when I have to help him/her financially,” and “I resent having to help him/her out financially.” An identical set of questions tapped the partner’s level of resentment.

Attitudes toward IPV. We asked respondents 13 questions at the time of the fifth interview assessing their level of agreement with reasons why it might be understandable that someone could hit a partner. These items include the following: (1) “A partner hurts your child, either physical or emotionally;” (2) “A partner hits you first;” (3) “A partner cheats on you;” (4) “A partner steals from you;” (5) “A partner is drunk or using drugs;” (6) “A partner embarrassed or belittled you in front of others;” (7) “A partner destroyed your property;” (8) “A partner continually nags you;” (9) “A partner threatened to hit you;” (10) “A partner tried to keep you from doing something;” (11) “A partner forces you to have sex with him or her;” (12) “A partner hurts a family member or loved one;” and (13) “A partner brings up something from the past to hurt you.” *Attitudes toward IPV* is the mean of the items ($\alpha = .93$).

Relationship Dynamics. *Relational asymmetry* was a dichotomous variable indicating whether the respondent reported being more “into” the relationship than the partner. *Pooled income* was based on responses to the following question: “How do the two of you organize the income that one or both of you receive?” Responses included the following categories: (1) “I

manage all the money and give him[her] his[her] share;” (2) “He[She] manages all the money and gives me my share;” (3) We pool all the money and each take out what we need;” (4) We pool some of the money and keep the rest separate;” and (5) We each keep our own money separate.” We dichotomized responses with 1 indicating some degree of comingling of resources (response categories 1 through 4) and 0 denoting entirely separate finances (response category 5).

Prior Victimization. We measured *coercive parenting* using a single item from the wave 1 adolescent report asking respondents: “When you and your parents disagree about things, how often do they push, slap, or hit you?” We dichotomized responses to indicate any coercive parenting. *IPV victimization* was taken from prior reports of IPV exposure at waves 1-4, and was based on the physical victimization items of the CTS including whether a previous partner had, “thrown something at you,” “pushed, shoved, or grabbed you,” “slapped you in the face or head with an open hand,” and “hit you.” Responses were dichotomized to indicate any prior IPV victimization (1 = yes).

Sociodemographic, Adult Status, and Relationship Variables

We include a series of sociodemographic indicators: gender and age, measured in years using a continuous variable reported from respondent’s age at wave 5, as well as three dummy variables to measure race/ethnicity including non-Hispanic white (contrast category), non-Hispanic black, and Hispanic. Family structure (wave 1) includes the following categories: two biological parents (contrast category), step-family, single-parent family, and any “other” family type. To control for socioeconomic status, we use the family income reported in the wave 1 parent questionnaire (ranges from 1 “less than \$10,000” to 9 “\$75,000 and over”).

Neighborhood poverty was from U.S. census data at the time of the first interview, and indicated

the “percent of population living below the poverty level” in the respondent’s census tract while growing up. We logged neighborhood poverty in the multivariate analyses to correct for skewness.

The following indicators represent the respondent’s level of education: less than high school, high school (contrast category), some college, and college or more. We assessed additional adult status characteristics including employment at wave 5 (full-time, part-time, and unemployed (contrast category)), and parental status by a question asking whether the respondent has any biological children.

We include a series of basic relationship variables in the models. Three dummy indicators distinguish whether the relationship of interest is dating (contrast category), cohabiting, or married. Additionally, we include a dichotomous variable to denote whether respondents reference a current relationship or their most recent romantic relationship (1 = current). Respondents identified the length of their relationship with their focal partner in years, and durations range from .08 (about one month) to 14 years.

Analytic Strategy

First, we examined the bivariate relationships between the study variables and IPV using logistic regression. Next, we examined the influence of economic strains in a series of nested models. Model 1 included attitudes toward IPV, relationship dynamics, prior victimization, sociodemographic, adult status, and relationship characteristics. Model 2 examined the association between economic strains and IPV net of controls for sociodemographic, adult status, and relationship characteristics. Model 3 introduced relationship dynamics and prior victimization, and a final model (model 4) added attitudes toward IPV. Subsequent analyses examined attitudes toward IPV and gender as potential mediators of the stress – IPV link, and

whether attitudes toward IPV conditioned the influence of economic strains on IPV. We examined models including cross-product terms for economic strains and neighborhood poverty to determine whether neighborhood levels of poverty conditioned the effect of economic strains on IPV. Finally, gender interactions tested whether the associations between economic strains and IPV differ for men and women.

Results

Descriptive Statistics

Table 1 shows the means/percentages and standard errors of all variables used in the analysis, as well as the range of each variable. Nearly a quarter (23.28%) of the sample self-reported relationship violence at wave 5. Average levels of conflict due to finances and financial resentments were 1.93 and 1.97, respectively. Individuals who reported IPV at wave 5 scored significantly higher on both types of these economic strains ($p < .001$). Across the sample as a whole, respondents report a relatively low level of endorsement of attitudes accepting of violence. The mean level of attitudes toward IPV for the full sample is 2.10, indicating that roughly 86% of the sample either disagree or strongly disagree with the use of violence toward an intimate partner. The level of endorsement, however, varies across the individual items included in the scale; 89% of the sample disagrees with the use of violence under the following condition, “A partner continually nags you,” whereas a minority of respondents (41%) views violence as unacceptable in the following situation: “A partner forces you to have sex with him or her.” Additionally, 15% of the sample reported relational asymmetry, or feelings that they were more into the relationship than a romantic partner, and roughly two-fifths of respondents reported pooled income. Comparing across the violent and non-violent subgroups, those reporting IPV at wave 5 indicated a higher level of endorsement of attitudes toward IPV.

Further, a greater percentage of individuals in the IPV subgroup reported relational asymmetry than those not reporting IPV. Finally, a larger portion of those reporting IPV experience at wave 5 indicated some degree of pooled income as compared to the non-violent subgroup. We also compared means/percentages by relationship violence across the remaining covariates (see Table 1).

Multivariate Analysis

In the zero order models (Table 2) focused on the dyadic implications of economic/career concerns, conflict due to finances and financial resentments are positively related to the odds of violence. Attitudes toward IPV are associated with greater odds of IPV. Additionally, relational asymmetry, pooled income, coercive parenting, and IPV victimization were all related to higher odds of IPV at the bivariate level. Racial minorities (Black, Hispanic), as compared to their white counterparts, were more likely to experience IPV. Those who reported living in a single parent or 'other' family structure, compared with those living with two biological parents, during adolescence were more likely to report IPV. There was a negative association between family income and IPV, and neighborhood poverty was positively associated with IPV. Respondents with a college education or greater exhibited lower odds of IPV, as did those who participated in either part-time or full-time employment. Respondents in cohabiting relationships, as compared to daters, and those in relationships of longer duration were at greater risk of IPV. Finally, respondents with children were significantly more likely to report some IPV exposure at wave 5.

Model 1 examines the influence of attitudes toward IPV, relationship dynamics, prior victimization, sociodemographic, adult status, and relationship characteristics on the odds of IPV. Attitudes toward IPV, relational asymmetry, pooled income, and IPV victimization are associated with heightened IPV risk. Growing up in a single-parent home or 'other' family

structure, as compared to with two biological parents, is positively associated with IPV. As compared to high school graduates, those with less than a high school degree reported lower odds of IPV. Respondent employment decreased the odds of IPV such that those participating in either part-time or full-time employment are less likely to report IPV. Finally, those in relationships of longer duration are at higher risk of IPV.

Model 2 examines the economic strain variables net of sociodemographic, adult status, and relationship characteristics. Net of these factors, both types of economic strain—conflict due to finances and financial resentments—increased the odds of IPV. Model 3 adds the prior victimization variables as a block, significantly contributing to the model fit ($\chi^2 = 26.91$, $p < .001$). Further, net of prior victimization experiences, each of the economic strain variables independently influenced the odds of IPV such that those experiencing higher levels of conflict due to finances and financial resentments were more likely to report IPV. A final model adds attitudes toward IPV. Consistent with study expectations, conflict due to finances, financial resentments, and attitudes toward IPV all contribute significantly to the model fit, heightening the risk of IPV. Net of these other factors, the associations between the relationship dynamics (relational asymmetry and pooled income) remained significant and positive. Of the sociodemographic, adult status, and relationship characteristics, residing in a single parent home or ‘other’ family structure during adolescence is associated with higher odds of IPV. As compared to their peers with a high school degree, those with less than a high school education report lower odds of IPV. Finally, respondents reporting either part- or full-time employment are less likely to report IPV net of other factors. In contrast to models 2 and 3, in model 4, females report lower odds of IPV net of other factors. This suppression effect is due to the addition of attitudes toward IPV to the model. That is, there is a strong, positive association between

attitudes toward IPV and self-reported partner violence at wave 5, and females report significantly higher levels of endorsement of attitudes toward IPV. Thus, after accounting for the effect of attitudes toward IPV, the effect of female on IPV becomes significant and negative.

A number of interactions were tested. First, we examined cross-product terms of both types of economic strain (conflict due to finances, financial resentments) with attitudes toward IPV to determine whether endorsement of these attitudes influenced the effect of economic strains on relationship violence. Neither of these interaction terms was significant, indicating a similar effect of economic strains on IPV across levels of attitudes toward IPV. We also examined whether the influence of economic strains on IPV was a function of disadvantage. In these analyses, we examined the interaction between each of the economic strains and the indicators of disadvantaged background (neighborhood poverty, family income) individually, and the nonsignificant results suggest that the influence of economic strains on IPV is similar across levels of disadvantage. Additionally, we estimated interactions between economic strains and gender to determine whether the effect of conflict due to finances or financial resentments differ for men and women. Neither of these interactions was significant indicating that the effect of economic strains on violence is similar for men and women.

Discussion

While numerous studies have examined the general link between financial hardship and IPV, the current study moves the lens forward to consider dynamics within the relationship itself, and the role of economic and career considerations as specific sources of conflict, and in turn, the role of these stressors on the odds of IPV. In this way, stress is not an abstraction or assumed by the researcher, but is captured empirically as the subject of partner interactions and views (economic strains). Using data from the Toledo Adolescent Relationships Study (TARS), this

investigation builds on the growing body of literature on intimate partner violence (IPV). The TARS data are particularly well-suited for these analyses as they include detailed information about the family backgrounds and sociodemographic characteristics of respondents, as well as questions assessing their attitudes and beliefs regarding the use of violence. Additionally, the TARS provide information about the broader relationship contexts within which IPV occurs. Given the particularly high rate of IPV among young adults, it is important to provide a more comprehensive view of its key predictors. This involves examination of structural and cultural factors as influences on partner violence including attention to traditional correlates, cultural understandings about the acceptability of violence, and life course specific sources of strain.

Most studies on economic hardship and relationship functioning focus on samples of married adults. Within the marital context, well-accepted norms regarding financial contributions exist. Across relationship types, however, there is much wider variation in these features of the relationship. Economic strains were significant predictors of IPV, both at the bivariate level and in models including a roster of control variables. In models examining the association between economic strains and IPV net of relationship dynamics, prior victimization, and a full roster of controls, a number of significant predictors emerged. Specifically, relational asymmetry and pooled income were associated with heightened risk of IPV. Prior victimization was associated with higher odds of IPV such that respondents indicating previous exposure to IPV reported greater odds of partner violence at wave 5. Finally, growing up in a single parent home or 'other' family structure was associated with increased odds of IPV, while engagement in part- or full-time employment was associated with lower odds of IPV.

The current investigation also assessed the role of cultural influence processes. Specifically, after establishing a direct association between attitudes regarding the use of

violence toward an intimate partner and IPV, the current study explored whether or not attitudes toward IPV contributed to the model fit net of other factors. In a full model examining economic strains, attitudes toward IPV, and control variables, the associations between economic strains and IPV remain significant and positive. Moreover, the endorsement of attitudes toward IPV is associated with heightened IPV risk. Thus, attitudes toward IPV appear to exert their own independent effect on the odds of IPV. These findings have important implications for future IPV research. Specifically, whereas more recent research has begun to move toward an event perspective, narrowing in on a specific violent episode and the immediate precursors, the current investigation emphasizes the need to broaden the scope. Situational factors (the specific content of relationship disputes) are important predictors of IPV, but it is important to direct attention toward other structural (sociodemographic background and current life status) and cultural (attitudes accepting of violence) influence processes.

Consistent with the family stress model, couple-level conflict does appear to stem from patterns of interaction. Beyond measures tapping negative communication styles, the results of the current investigation suggest that it is important to consider the specific content of couples' disagreements. This contributes beyond prior work, and suggests the need for future research that looks beyond general discord or verbal conflict to a more complex understanding of the couple as characterized by specific stressors. Further, the findings of the current investigation suggest the need to reframe the way we think about resource pooling—particularly when examining a range of relationship types. That is, rather than conceptualizing pooled finances and the general provision of instrumental support strictly as markers of a committed relationship, it is important to consider the extent to which such financial decisions are reflective of economic hardship.

While this study offers new contributions, there are some limitations. First, similar to other studies based on survey data, the measure of relationship violence used in the current investigation is taken from the conflict tactics scale (CTS2). Supplemental analyses (results not shown), however, examined a range of alternative conceptualizations of partner violence to determine the appropriate specification. Despite this attention to the issue of IPV measurement, the current study nevertheless suffers from the weaknesses inherent in the CTS. Second, the current investigation focused on a regional sample of young adults in Lucas County, OH. Yet, despite the regional nature of the sample, individuals selected for inclusion in the study were reflective of the US population in terms of their sociodemographic profiles. Third, the items assessing economic strains relied on respondents' reports about the partner. While recent research has highlighted the utility of one's perception of his/her partner in understanding relationship discord (Williams et al., 2013), future research may nevertheless benefit from couple-level data to provide a more dyadic account of potential sources of strain. Additionally, this study focuses exclusively on strains associated with the economic realm among a sample of young adults. Future work should examine the influence of other sources of strain during the young adult period (i.e., work/family conflict) on relationship violence.

Taken together, these findings provide support for a relational or dyadic approach to partner violence, suggesting the need to focus additional research attention on the specific content of partner disputes. More specifically, whereas individualized treatment models often include an anger management component, curricula directed at young people may benefit from attention to their specific life course circumstances that contribute to feelings of strain in contrast to a focus on anger as a source of individual difference. Programmatic efforts that realize the dyadic nature of IPV move the field forward in this regard, yet the current findings suggest that

attention to communication styles or patterns of interaction may not be sufficient for those at the margins. Instead, programming that targets the source of relationship stressors and provides information for couples as to how they may more effectively deal with these particular areas of discord (i.e., financial management training, information on how to pool resources) may be more successful. Although the current investigation focused on a sample of young adults, this more targeted approach to intervention and prevention efforts may fit the needs of a broader range of individuals. Yet whereas most research on economic hardship focuses on samples of older adults, the findings of the current investigation suggest that during economic hard times, it may be especially important to focus attention on the young adult population and how they are faring.

References

- Addo, F.R. (2014). Debt, cohabitation, and marriage in young adulthood. *Demography*, *51*(5), 1677-1701.
- Addo, F.R., & Sassler, S. (2010). Financial arrangements and relationship quality in low-income couples. *Family relations*, *59*(4), 408-423.
- Akers, R.L. (1998). *Social learning and social structure: A general theory of crime and deviance*. New Brunswick, NJ: Transaction Publishers.
- Amato, P.R., Booth, A., Johnson, D.R., & Rogers, S.J. (2007). *Alone together: How marriage in America is changing*. Cambridge, MA: Harvard University Press.
- Bandura, A. (1973). *Aggression: A social learning analysis*. Oxford, England: Prentice Hall.
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice-Hill.
- Becker, G., Landes, E.M., & Michael, R.T. (1977). An economic analysis of marital instability. *Journal of Political Economy*, *85*, 1141-1187.
- Benson, M. L., Fox, G. L., DeMaris, A., & Van Wyk, J. (2003). Neighborhood disadvantage, individual economic distress and violence against women in intimate relationships. *Journal of Quantitative Criminology*, *19*(3), 207-235.
- Berkowitz, L. (1989). Frustration – aggression hypothesis: Examination and reformulation. *Psychological Bulletin*, *106*, 59-73.
- Brines, J., & Joyner, K. (1999). The ties that bind: Principles of cohesion in cohabitation and marriage. *American Sociological Review*, *64*, 333-355.
- Brown, S.L., & J.R. Bulanda. (2008). Relationship violence in young adulthood: A comparison of daters, cohabitators, and marrieds. *Social Science Research*, *37*, 73-87.

- Capaldi, D.M., Knoble, N.B, Shortt, J.W., Wu, J., & Kim, H.K. (2012). A systematic review of risk factors for intimate partner violence. *Partner Abuse, 3*(2), 1-27.
- Cascardi, M., & Vivian, D. (1995). Context for specific episodes of marital violence: Gender and severity of violence differences. *Journal of Family Violence, 10*(3), 265-293.
- Conger, R.D., Conger, K.J., & Martin, M.J. (2010). Socioeconomic status, family processes, and individual development. *Journal of Marriage and Family, 72*, 685-704.
- Conger, R.D., & Elder, G.H., Jr. (Eds.). (1994). *Families in troubled times: Adapting to change in rural America*. Hawthorne, NY: Aldine de Gruyter.
- Conger, R.D., Elder, G.H., Lorenz, F.O., & Conger, K.J. (1990). Linking economic hardship to marital quality and instability. *Journal of Marriage and Family, 52*(3), 643-656.
- Conger, R. D., Rueter, M. A., & Elder Jr, G. H. (1999). Couple resilience to economic pressure. *Journal of Personality and Social Psychology, 76*(1), 54.
- Conger, R. D., Wallace, L. E., Sun, Y., Simons, R. L., McLoyd, V. C., & Brody, G. H. (2002). Economic pressure in African American families: a replication and extension of the family stress model. *Developmental Psychology, 38*(2), 179.
- Cui, M., Ueno, K., Gordon, M., & Fincham, F. (2013). The continuation of intimate partner violence from adolescence to young adulthood. *Journal of Marriage and Family 75*(2), 300-313.
- Cunradi, C. B., Caetano, R., Clark, C., & Schafer, J. (2000). Neighborhood poverty as a predictor of intimate partner violence among White, Black, and Hispanic couples in the United States: a multilevel analysis. *Annals of Epidemiology, 10*(5), 297-308.

- DeJong, C., Pizarro, J. M., & McGarrell, E. F. (2011). Can Situational and Structural Factors Differentiate Between Intimate Partner and “Other” Homicide? *Journal of Family Violence, 26*(5), 365-376.
- DeMaris, A., Benson, M. L., Fox, G. L., Hill, T., & Van Wyk, J. (2003). Distal and proximal factors in domestic violence: A test of an integrated model. *Journal of Marriage and Family, 65*(3), 652-667.
- Dew, J., & Dakin, J. (2011). Financial disagreements and marital conflict tactics. *Journal of Financial Therapy, 2*(1), 23-42.
- Diem, C., & Pizarro, J. M. (2010). Social structure and family homicides. *Journal of Family Violence, 25*(5), 521-532.
- Edin, K., & Kissane, R. J. (2010). Poverty and the American family: A decade in review. *Journal of Marriage and Family, 72*(3), 460-479.
- Ehrensaft, M., Cohen, P., Brown, J., Smailes, E., Chen, H., & Johnson, J. (2003). Intergenerational transmission of partner violence: A 20 year prospective study. *Journal of Consulting and Clinical Psychology, 71*, 741-753.
- Elder, G. H. (1994). Time, human agency, and social change: Perspectives on the life course. *Social Psychology Quarterly, 4*-15.
- Elder, G.H., George, L.K., & Shanahan, M.J. (1996). Psychosocial stress over the life course. In H.B. Kaplan (Ed.), *Perspectives of structure, theory, life course and methods* (pp. 247-292). Orlando, FL: Plenum Press.
- Fox, G. L., & Benson, M. L. (2006). Household and neighborhood contexts of intimate partner violence. *Public Health Reports, 121*(4), 419.

- Fox, G.L., Benson, M.L., DeMaris, A.A., & Wyk, J.V. (2002). Economic distress and intimate violence: Testing family stress and resource theories. *Journal of Marriage and Family*, 64(3), 793-807.
- Giordano, P.C., Copp, J.E., Longmore, M.A., & Manning, W.D. (2013). Contested Domains, verbal 'amplifiers,' and intimate partner violence in young adulthood. In 2013 Working Paper Series. Center for Family and Demographic Research: Bowling Green State University.
- Golden, S. D., Perreira, K. M., & Durrance, C. P. (2013). Troubled Times, Troubled Relationships How Economic Resources, Gender Beliefs, and Neighborhood Disadvantage Influence Intimate Partner Violence. *Journal of Interpersonal Violence*, 28(10), 2134-2155.
- Gudmunson, C. G., Beutler, I. F., Israelsen, C. L., McCoy, J. K., & Hill, E. J. (2007). Linking financial strain to marital instability: Examining the roles of emotional distress and marital interaction. *Journal of Family and Economic Issues*, 28(3), 357-376.
- Hardie, J.H., & Lucas, A. (2010). Economic factors and relationship quality among young couples: Comparing cohabitation and marriage. *Journal of Marriage and Family*, 72, 1141-1154.
- Jasinski, J. L., Asdigian, N. L., & Kantor, G. K. (1997). Ethnic Adaptations to Occupational Strain Work-Related Stress, Drinking, and Wife Assault Among Anglo and Hispanic Husbands. *Journal of Interpersonal Violence*, 12(6), 814-831.
- Kenney, C. (2004). Cohabiting couple, filing jointly? Resource pooling and US poverty policies. *Family Relations*, 53(2), 237-247.

- Kenney, C., & McLanahan, S. (2006). Why are cohabiting relationships more violence than marriages? *Demography*, *43*, 127-140.
- Kinnunen, U., & Pulkkinen, L. (1998). Linking economic stress to marital quality among Finnish marital couples mediator effects. *Journal of Family Issues*, *19*(6), 705-724.
- Knopp, K.C., Rhoades, G.K., Stanley, S.M., & Markman, H.J. (2014). Stuck on you: How dedication moderates the way constraints feel. *Journal of Social and Personal Relationships*, *XX*, 1-19.
- McLoyd, V.C. (1998). Socioeconomic disadvantage and child development. *American Psychologist*, *53*, 185-204.
- Miles-Doan, R. (1998). Violence between spouses and intimates: Does neighborhood context matter? *Social Forces*, *77*(2), 623-645.
- Papp, L.M., Cummings, E.M., & Goeke-Morey, M.C. (2009). For richer, for poorer: Money as a topic of marital conflict in the home. *Family Relations*, *58*, 91-103.
- Pearlin, L.I. (2010). The life course and the stress process: Some conceptual comparisons. *Journal of Gerontology: Social Sciences*, *65B*(2), 207-215.
- Pew Research Center. (2010). Millennials: A portrait of generation next. Washington, DC: Pew Research Center Social and Demographic Trends project, February.
<http://www.pewsocialtrends.org/files/2010/10/millennials-confident-connected-open-to-change.pdf>.
- Rennison, C.M., & Welchans, S. (2000). Intimate partner violence. Special report. Washington: Department of Justice (US), Bureau of Justice Statistics; Report No. NCJ178247.

- Rhoades, G.K., Stanley, S.M., & Markman, H.J. (2010). Should I stay or should I go? Predicting dating relationship stability from four aspects of commitment. *Journal of Family Psychology, 24*, 678-687.
- Rhoades, G.K., Stanley, S.M., Markman, H.J., & Ragan, E.P. (2012). Parents' marital status, conflict, and role modeling: Links with adult romantic relationship quality. *Journal of Divorce and Remarriage, 53*, 348-367.
- Smith, C.A., Ireland, T.O., Park, A., Elwyn, L., & Thornberry, T.P. (2011). Intergenerational continuities and discontinuities in intimate partner violence: A two-generational prospective study. *Journal of Interpersonal Violence, XX(X)*, 1-33.
- Stanley, S.M., Amato, P.R., Johnson, C.A., & Markman, H.J. (2006). Premarital education, marital quality, and marital stability: Findings from a large, random household survey. *Journal of Family Psychology, 20*, 117-126.
- Stanley, S.M., & Markman, H.J. (1992). Assessing commitment in personal relationships. *Journal of Marriage and Family, 54*, 595-608.
- Stanley, S.M., Markman, H.J., & Whitton, S.W. (2002). Communication, conflict, and commitment: Insights on the foundations of relationship success from a national survey. *Family Process, 41*, 659-675.
- Steuber, K. R., & Paik, A. (2013). Of money and love: Joint banking, relationship quality, and cohabitation. *Journal of Family Issues, XX(X)*, 1-23.
- Stith, S. M., Green, N. M., Smith, D. B., & Ward, D. B. (2008). Marital satisfaction and marital discord as risk markers for intimate partner violence: A meta-analytic review. *Journal of Family Violence, 23(3)*, 149-160.

- Straus, M. A. (1980). Social stress and marital violence in a national sample of American families. *Annals of the New York Academy of Sciences*, 347(1), 229-250.
- Straus, M. A., Hamby, S. L., Boney-McCoy, S., & Sugarman, D. B. (1996). The revised conflict tactics scales (CTS2) development and preliminary psychometric data. *Journal of Family Issues*, 17(3), 283-316.
- Treas, J. (1993). Money in the bank: Transaction costs and the economic organization of marriage. *American Sociological Review*, 58, 723-734.
- Vest, J., Catlin, T., Chen, J., Brownson, R. (2002). Multistate analysis of factors associated with intimate partner violence. *American Journal of Preventive Medicine*, 22, 156-164.
- Williams, D.T., Cheadle, J.E., & Goosby, B.J. (2013). Hard times and heart break: Linking economic hardship and relationship distress. *Journal of Family Issues*, XX(X), 1-27.
- Winstok, Z. (2013). Partner violence: A new paradigm for understanding conflict escalation. New York: Springer.

Table 1. Means/Percentages and Standard Deviations for Relationship Violence, Economic Strains, Attitudes toward IPV, Relationship Dynamics, Prior Victimization, Sociodemographic, Adult Status, and Relationship Characteristics for Full Sample and by IPV Experience (n = 928)

Dependent Variables	Full Sample (n = 928)			IPV (n = 216)		No IPV (n = 712)
Independent Variables	Mean/Percentage	SD	Range	M		M
Relationship Violence	23.28%					
<i>Economic Strains</i>						
Conflict due to finances	1.93	0.76	1-5	2.45	***	1.77
Financial resentments	1.97	0.70	1-5	2.41	***	1.83
Attitudes toward IPV	2.10	0.78	1-5	2.47	***	1.99
<i>Relationship Dynamics</i>						
Relational asymmetry	14.98%			24.54%	***	12.08%
Pooled income	42.98%			56.02%	***	38.90%
<i>Prior Victimization</i>						
Coercive parenting	22.41%			30.09%	**	20.08%
IPV victimization	47.63%			64.35%	***	42.56%
<i>Sociodemographic Characteristics</i>						
Female	54.53%			53.24%		54.92%
Age	25.42	1.83	22-29	25.38		25.44
Race						
White	67.35%			53.24%	***	71.63%
Black	21.34%			30.09%	***	18.68%
Hispanic	11.31%			16.67%	**	9.69%
Family structure						
Two biological parents	53.45%			37.50%	***	58.29%
Single parent	21.01%			31.48%	***	17.84%
Step-parent	13.58%			13.43%		13.62%
Other	11.96%			17.59%	**	10.25%
Family income	3.80	1.80	1-9	3.40	***	3.93
Neighborhood poverty	14.07	14.34	0-70.13	18.10	***	12.85
<i>Adult Status Characteristics</i>						
Respondent's education						
Less than HS	8.19%			11.57%	*	7.16%
High school	21.99%			30.56%	***	19.38%
Some college	41.16%			44.91%		40.03%
College or more	28.66%			12.96%	***	33.43%
Respondent's employment						
Unemployed	24.89%			38.89%	***	20.65%
Part-time	19.18%			18.52%		19.38%
Full-time	55.93%			42.59%	***	59.97%
Parent	25.65%			38.89%	***	21.63%
<i>Relationship Characteristics</i>						
Union status						
Dating	44.39%			34.72%	**	47.33%
Cohabiting	32.33%			42.59%	***	29.21%
Married	23.28%			22.69%		23.46%
Current relationship	79.96%			78.24%		80.48%
Duration	3.42	2.88	.08-14	3.97	**	3.25

* p < .05; ** p < .01; *** p < .001

Source: Toledo Adolescent Relationships Study

Table 2. Odds Ratios for the Association between Economic Strains, Attitudes toward IPV, Relationship Dynamics, Prior Victimization, Sociodemographic, Adult Status, and Relationship Characteristics and Relationship Violence (n = 928)

	Zero-Order	Model 1	Model 2	Model 3	Model 4
<i>Economic Strains</i>					
Conflict due to finances	3.106***		2.196***	2.222***	2.077***
Financial resentments	3.438***		2.245***	2.120***	2.084***
<i>Attitudes toward IPV</i>	2.257***	2.111***			1.805***
<i>Relationship Dynamics</i>					
Relational asymmetry	2.367***	2.219***		2.014**	1.894*
Pooled income	2.000***	1.728**		1.652*	1.705*
<i>Prior Victimization</i>					
Coercive parenting	1.713**	1.252		1.254	1.187
IPV victimization	2.437***	1.746**		1.937***	1.799**
<i>Sociodemographic Characteristics</i>					
Gender (Female)	0.935	0.656*	0.760	0.835	0.662*
Age	0.983	0.962	0.959	0.958	0.960
Race (White)					
Black	2.167***	1.028	1.003	0.940	0.876
Hispanic	2.314***	1.405	1.522	1.415	1.507
Family structure (Bio parents)					
Single parent	2.743***	1.992**	1.875**	1.875**	1.951**
Step-parent	1.532	1.065	0.958	0.903	0.958
Other	2.667***	1.787*	1.666	1.810*	1.842*
Family income	0.840***	1.008	1.042	1.059	1.065
Neighborhood poverty	1.452***	1.035	1.080	1.067	1.055
<i>Adult Status Characteristics</i>					
Respondent's education (High school)					
Less than HS	1.025	0.497*	0.612	0.515	0.438*
Some college	0.712	0.847	0.761	0.725	0.792
College or more	0.246***	0.595	0.662	0.717	0.799
Respondent's employment (Unemployed)					
Part-time	0.507**	0.597*	0.505*	0.485**	0.499*
Full-time	0.377***	0.468***	0.485***	0.477***	0.473***
Parent	2.306***	1.115	1.353	1.127	1.087
<i>Relationship Characteristics</i>					
Union status (Dating)					
Cohabiting	1.987***	1.755*	1.522	1.386	1.426
Married	1.318	1.077	1.065	0.799	0.849
Current relationship (Most recent)	0.872	0.819	1.117	1.243	1.234
Duration	1.272***	1.103**	1.057	1.063	1.071
Model χ^2		188.42***	223.98***	250.89***	271.38***

* p < .05; ** p < .01; *** p < .001

Source: Toledo Adolescent Relationships Study