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Bidirectional Associations between Acceptability of Violence and Intimate Partner Violence from Adolescence to Young Adulthood

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Abstract

Objective—Beliefs about the acceptability of intimate partner violence (IPV) are associated with the perpetration of IPV among adolescents. However, minimal research has examined whether this association persists across time or whether there is a bidirectional association between acceptability of IPV and the perpetration of IPV. The purpose of the present study was to examine bidirectional associations between acceptability of IPV and the perpetration of IPV from adolescence into young adulthood.

Method—A sample of diverse high school students ($N = 1,042$; 56% female) from the Southwestern United States were assessed each year for six consecutive years. At each assessment, participants completed measures of the acceptability of IPV and psychological and physical IPV perpetration. The mean age of the sample at the first assessment was 15.09 ($SD = .79$).

Results—Structural equation modeling demonstrated that acceptability of male-to-female and female-to-male IPV were not consistent predictors of one's own IPV perpetration over time. In addition, minimal evidence was found for a bidirectional association between acceptability of IPV and one's own IPV perpetration over time. Moreover, minimal gender differences were evident and there were no differences based on race/ethnicity.

Conclusion—Despite the stability of beliefs about the acceptability of IPV over time from adolescence to young adulthood, findings suggest that acceptability of IPV is not a robust predictor of one's own IPV perpetration during this developmental time period. The implications of targeting beliefs about IPV in prevention and intervention programs are discussed.

Keywords

Intimate partner violence; acceptability of violence; adolescence; young adults

Intimate partner violence (IPV) among adolescents is a prevalent problem. In the present study, we focused on two types of IPV: psychological and physical. Nationally representative studies of adolescents suggest that psychological IPV (e.g., threats of violence, degrading remarks made toward a partner) is perpetrated annually by approximately 60% of adolescents (Taylor & Mumford, 2016), with other studies suggesting that 40% of adolescents perpetrate frequent or severe psychological IPV (Choi, Weston, & Temple, 2017). Physical IPV (e.g., slapping, pushing/shoving, punching a partner) is perpetrated annually by approximately 20% of adolescents (Taylor & Mumford, 2016; Zweig, Dank, Yahner, & Lachman, 2013). Prior research has shown similar rates of IPV perpetration for males and females (Vagi et al., 2013) and IPV victimization is associated with increased symptoms of depression and anxiety (Exner-Cortens, Eckenrode, & Rothman, 2013; Foshee, Reyes, Gottfredson, Chang, & Ennett, 2013), substance use (Exner-Cortens et al., 2013; Temple & Freeman, 2011), and suicidal ideation (Exner-Cortens et al., 2013). Thus, it is important that research be conducted on malleable predictors of IPV, as these could be targeted in IPV prevention and intervention programs. Research suggests that beliefs about the acceptability of IPV are associated with IPV perpetration among adolescents (e.g., Reyes, Foshee, Niolon, Reidy, & Hall, 2016; Temple, Shorey, Tortolero, Wolfe, & Stuart, 2013) and beliefs about IPV are common targets of adolescent IPV prevention and intervention programs (Foshee et al., 2014; Wolfe et al., 2003). However, whether it makes sense for practitioners to target attitudes towards IPV perpetration when they design prevention programs is unknown, as there has been minimal research on whether adolescents' attitudes toward IPV predict their future IPV perpetration. Moreover, it is unknown whether acceptability of IPV and IPV perpetration have a reciprocal relationship, such that beliefs about the acceptability of IPV influence IPV perpetration, and IPV perpetration influences one's beliefs about the acceptability of IPV. Thus, the purpose of the current study was to examine potential bidirectional associations between beliefs about the acceptability of IPV and the perpetration of psychological and physical IPV from adolescence into young adulthood.

Acceptability of Violence and IPV

Theoretical models of adolescent and young adult IPV perpetration have postulated that beliefs about the acceptability of violence play an important role in the perpetration of IPV (see review of theories by Shorey, Cornelius, & Bell, 2008). For example, the background-situational model (Riggs & O'Leary, 1989) hypothesizes that attitudes which are accepting of the use of violence to resolve conflicts is influential in the perpetration of IPV. Similarly, Bell and Nagule's (2008) contextual model of IPV proposes that verbal rules, which includes beliefs about the acceptability of violence, likely influence episodes of IPV perpetration, such that greater acceptability of IPV would be associated with a greater risk for IPV perpetration. While it is outside the scope of this manuscript to review all theories of IPV which propose acceptability of violence as an important component, overall the theoretical literature places a heavy emphasis on beliefs about the acceptability of IPV. This emphasis is also seen in IPV prevention and intervention programs which often target beliefs about the acceptability of IPV, as it is postulated that changing attitudes will result in reduced IPV perpetration (Cornelius & Resseguie, 2007).

Prior research has demonstrated that beliefs about the acceptability of IPV are associated with IPV perpetration among adolescents. For instance, utilizing cross-sectional data from the sample reported in the present study, we (Temple, Shorey, Tortolero, Wolfe, & Stuart, 2013) demonstrated that higher levels of acceptability of female-to-male violence was associated with physical and psychological IPV perpetration for females, whereas acceptability of male-to-female violence was positively associated with physical IPV perpetration for males. Moreover, latent class analyses demonstrated adolescents were more likely to be in a violent category if they were higher in acceptability of IPV (Choi, Weston, & Temple, 2017). In addition, we also found that acceptability of IPV was associated with psychological IPV one year later (Temple et al., 2016). Utilizing a sample of 6th grade students, Taylor, Sullivan, and Farrell (2015) demonstrated that greater acceptance of male-to-female IPV predicted physical and psychological IPV six months later, whereas greater acceptance of female-to-male IPV predicted psychological IPV only. These results did not vary based on the gender of participants. Over the course of 6th to 12th grade, Orpinas, Hsieh, Song, Holland, and Nahapetyan (2013) found that acceptance of IPV decreased over time, although adolescents who experienced higher levels of IPV perpetration reported greater acceptability of male-to-female and female-to-male IPV over time, relative to adolescents with lower levels of IPV. These findings were consistent for male and female participants. Schumacher and Slep (2004) concluded that, across studies with adolescents, there is a small-to-medium association between beliefs about the acceptability of IPV and one's own IPV perpetration.

Importantly, research has also examined whether changing beliefs about the acceptability of IPV predicts changes in IPV perpetration. For example, Foshee and colleagues (2005) found that across 3 years, adolescents who received *Safe Dates*, a school-based intervention program for IPV, had decreases in IPV perpetration, and this was mediated by reduced acceptability of IPV. Thus, acceptability of IPV may be a modifiable risk factor for IPV perpetration that can be targeted among adolescents. However, little is known about whether beliefs about the acceptability of IPV naturally change across time from adolescence into young adulthood, a unique developmental time period where risk for IPV is heightened (O'Leary, 1999). Indeed, attempts to change beliefs about the acceptability of IPV in young adults has not resulted in reductions in IPV perpetration (see Cornelius & Resseguie, 2007 for review), which may suggest that beliefs about the acceptability of IPV is a stronger risk factor for IPV in adolescence than in young adulthood. Thus, empirical research is needed to examine this possibility as theoretical models of IPV have failed to consider the impact of different developmental periods (e.g., adolescence, young adulthood) on this association.

Gender, Race/Ethnicity, and Acceptability of Violence

Prior research has also examined differences in perceptions of the acceptability of male-to-female and female-to-male IPV. Utilizing a sample of high school students, Reeves and Orpinas (2012) found stronger support for female-to-male violence than for male-to-female violence, as adolescents correctly perceived male-to-female violence to be more detrimental and more likely to lead to legal consequences. Indeed, additional research has shown that female-to-male IPV is not perceived as abusive, whereas male-to-female IPV is perceived as abusive among adolescents (e.g., Sears, Byers, Whelan, & Saint-Pierre, 2006), and that

adolescent males are more accepting of violence against a partner in general than adolescent females (Price et al., 1999). However, as discussed above, prior research is mixed on whether acceptability of female-to-male IPV or male-to-female IPV is predictive of an individual's own IPV perpetration, or whether this varies for men and women. Moreover, no theoretical model of IPV hypothesizes gender differences in this association, although most theories of IPV fail to consider the importance of gender. Thus, additional research is needed that examines potential gender differences in these associations which would provide IPV prevention and intervention programs with important information on whether different risk factors should be targeted in these programs for men and women.

Minimal research has also been conducted on whether the acceptability of IPV is differentially related to one's own IPV perpetration based on race or ethnicity. Indeed, despite prior research utilizing diverse samples of adolescents (e.g., Jouriles, Rosenfield, McDonald, Kleinsasser, & Dodson, 2013; Orpinas et al., 2013; Temple et al., 2016), studies have largely ignored whether the association between acceptability of IPV and one's own IPV perpetration differs across racial or ethnic groups. Preliminary research with adults has demonstrated that Hispanic women, relative to non-Hispanic women, are significantly more likely to agree that there are times when slapping a partner is acceptable (Ingram, 2007). Similar to gender, theoretical models of IPV have largely failed to consider what impact, if any, race/ethnicity may have on risk factors for IPV. Knowledge of whether beliefs about the acceptability of IPV are differentially related to IPV perpetration across racial and ethnic groups would provide important information for the development and implementation of culturally-relevant IPV prevention and intervention programs.

Present Study and Hypotheses

Expanding upon prior research, we examined bidirectional associations between beliefs about the acceptability of IPV and one's own IPV perpetration from adolescence to young adulthood. We examined the bidirectional associations between acceptability of IPV and one's own IPV perpetration given theoretical models of attitude-behavior associations which suggest that attitudes may influence changes in behavior and/or behavior may influence changes in attitudes (Wells & Twenge, 2005). In the current study, it is plausible that the perpetration of IPV may predict increases in beliefs about the acceptability of IPV, possibly in an attempt to reduce cognitive dissonance between behavior and attitudes (Festinger, 1962). Research on the bidirectional, longitudinal relationship between acceptability of IPV and the perpetration of IPV from adolescence to young adulthood will provide important information for prevention and intervention programs. Moreover, we expanded upon prior research by examining whether the potential bidirectional relationship between acceptability of IPV and the perpetration of IPV varied across males and females and racial/ethnic groups.

Utilizing a sample of diverse male and female adolescents who were assessed annually for six consecutive years, we hypothesized that (1) higher levels of acceptability of IPV (male-to-female and female-to-male) would predict greater levels of IPV perpetration (psychological and physical) over time and (2) higher levels of IPV perpetration would predict greater levels of acceptability of IPV over time. Due to minimal research on potential

gender and racial/ethnic differences in these associations, we did not make any a priori hypotheses about potential group differences.

Method

Participants

A total of 1,042 adolescents were recruited from high schools in southeast Texas and participated in the current study. Beginning in 2010, participants were assessed annually for six years. The mean age of participants at the first assessment was 15.09 ($SD = .79$). The majority of the sample was female (56%). Self-identified race/ethnicity included Hispanic (31.4%), White (29.4%), Black or African American (27.9%), Asian American/Pacific Islander (3.6%), and “other” (e.g., Mixed race; 7.7%). Participants were in 9th ($n = 781$), 10th ($n = 250$), and 11th grade ($n = 11$) at the first assessment. Follow-up retention at each assessment was good, including year 2 (92.5%), year 3 (85.7%), year 4 (74.4%), year 5 (66.9%), and year 6 (72.7%). This sample has been reported on elsewhere (Choi et al., 2017; Temple et al., 2013).

Procedure

Participants were recruited during normal school hours from classes with mandatory attendance. There were no exclusion criteria, and thus all students in these classes were eligible for the study. Active consent was obtained by having study staff attend each class twice prior to the first assessment to explain the purpose of the research, general design, and answer questions. Information about the study, including a parental consent form, was sent home with students to provide to their parents. Sixty-two percent of students approached for participation returned a signed parental consent. In addition to parental consent, student assent was obtained. For questionnaire completion, participants were “pulled” from the class from which they were recruited, brought to a room reserved at the school for the study, and completed the questionnaires. Teachers and other school staff were not present during completion of questionnaires. Participants who were not in high school during follow-up assessments completed the questionnaires on a web-based survey platform. Compensation for the study included a \$10 gift card (years 1, 2, and 3), a \$20 gift card (years 4 and 5), and a \$30 gift card (year 6). The study received Institutional Review Board approval.

Measures

Demographics—At the first assessment, participants indicated their age, race/ethnicity, gender, and current grade in school. For race/ethnicity, participants were asked “how do you describe yourself?” and provided with the following response options: Hispanic; White, Non-Hispanic; Black or African American; Asian/Pacific Islander; American Indian or Alaska Native; Other.

IPV—Psychological and physical IPV perpetration was examined with the Conflict in Adolescent Dating Relationships Inventory (CADRI; Wolfe et al., 2001) at each assessment. Ten items assessed psychological IPV (e.g., “I ridiculed or made fun of him/her in front of others”) and four items assessed physical IPV (e.g., “I threw something at him/her”). All questions were rated with a Yes/No response format and a total score was obtained by

summing all items for each respective type of IPV. Higher scores reflect a greater number of psychological or physical IPV acts perpetrated. At the first assessment questions referred to IPV in participants' entire lifetime and during years 2–6, questions referred to IPV in the previous 12 months. In prior research the CADRI has shown good psychometric properties (Wolfe et al., 2001). In the current study, across all years, internal consistencies ranged from .80 to .85 for psychological IPV and .76 to .86 for physical IPV.

Acceptability of IPV—We utilized 6 items from The Acceptance of Couple Violence scale (ACV; Foshee et al., 1996) to examine participants' acceptance of IPV at each assessment. Specifically, we included the male-to-female violence (3 items; e.g., “Girls sometimes deserve to be hit by boys they date”) and female-to-male violence (3 items; e.g., “A girl angry enough to hit her boyfriend must love him very much”) subscales. Items were rated on a 4-point scale ($1 = strongly disagree$; $4 = strongly agree$) with total scores calculated by summing all items for each subscale. Higher scores correspond to greater acceptance of violence. Developed specifically for use with adolescents, prior research has shown the ACV to have good psychometric properties and sensitivity to change across time (Foshee et al., 2005). In the current study, across all years, internal consistencies ranged from .68 to .88 for male-to-female IPV and .76 to .86 for female-to-male IPV.

Data Analytic Strategy

We employed structural equation modeling (SEM) in Mplus version 7.0 to examine the hypotheses of interest for the current study. We utilized full information maximum likelihood estimation (FIMLE), as this approach does not exclude observations with missing data and uses all available data to estimate parameters (Kline, 2015). Due to positive skew and kurtosis among study variables, we utilized robust maximum likelihood estimation, which estimates maximum likelihood parameters with standard errors and a chi-square statistic which are robust to non-normal data (Kline, 2015).

We evaluated model fit using common fit indices, including the chi-square statistic (χ^2), the root mean squared error of approximation (RMSEA), and the comparative fit index (CFI). For the chi-square fit index, values of less than 2.0 indicate good model fit; RMSEA values less than .08 indicate good model fit; and CFI values of .95 or higher indicate good model fit. As Hu and Bentler (1999) note, these fit indices are the most sensitive to models with mis-specified factor covariances and loadings.

Cross-lagged associations between acceptability of violence, psychological IPV, and physical IPV were examined. Separate models were conducted for male-to-female and female-to-male acceptance of IPV. Both models included stability paths and cross-lagged associations between all variables across all years. The multiple group model (MGM) approach was employed to examine potential gender and racial/ethnic differences in the cross-lagged models. The first step in MGM analyses involves estimating a model where structural paths are free to vary across levels of the dichotomous moderator (e.g., gender). Next, a model is estimated where structural paths are constrained to be equal across levels of the moderator. A chi-square difference test (χ^2) is utilized to determine whether constraining paths to be equal across levels of the moderator resulted in a significant

decrement to the model chi-square (Muthén & Muthén, 2006). A significant decrement to the model chi-square indicates that paths varied across levels of the moderator. An iterative process was utilized in the present study to conduct MGM analyses. First, we examined whether the stability of acceptability of IPV varied across gender, followed by the examination of whether bidirectional associations varied by gender, one at a time. This process was then repeated with race/ethnicity as the moderator. Due to few participants reporting a race/ethnicity other than White, Black/African American, or Hispanic, moderation analyses for race/ethnicity were only conducted with these three subgroups of participants.

Results

Descriptive Statistics

Table 1 displays means and standard deviations. Consistent with prior research, the prevalence of psychological IPV ranged from 68.2% (Wave 6) to 81.7% (Wave 1) and the prevalence of physical IPV ranged from 15.8% (Wave 5) to 21.5% (Wave 1).

Acceptability of Male-to-Female IPV

The cross-lagged path model for acceptability of male-to-female IPV demonstrated acceptable fit to the data, $\chi^2(90) = 375.42, p < .05$, RMSEA = .05; CFI = 89. As displayed in Figure 1 and Table 2 (and reported previously, CITATION MASKED), physical IPV perpetration and psychological IPV perpetration were stable across years. Acceptability of male-to-female IPV also remained stable across the six years. Examining associations between constructs over time (i.e., cross-lagged paths) revealed some interesting patterns. Surprisingly, across all six years, acceptability of male-to-female IPV at any one year did not predict psychological or physical IPV the following year. However, psychological IPV at year one predicted increases in acceptability of male-to-female IPV in year 2, and physical IPV at year 2 predicted increases in acceptability of male-to-female IPV in year 3.

Gender Differences in Acceptability of Male-to-Female IPV—Results of MGM analyses demonstrated that constraining the stability paths for acceptability of male-to-female IPV to be equal across gender resulted in a non-significant change in the model, $\chi^2(5) = 5.35, p > .05$. Similarly, constraining the influence of acceptability of male-to-female IPV on psychological IPV and physical IPV to be equal across gender resulted in non-significant changes to the model, $\chi^2(5) = 4.91, p > .05$ and $\chi^2(5) = 2.86, p > .05$, respectively.

However, constraining the influence of psychological and physical IPV on acceptability of male-to-female IPV to be equal across gender did result in a significant change to the model, $\chi^2(10) = 22.29, p < .05$, suggesting gender differences. Findings showed that the strength of the relationship between physical IPV at year 2 and acceptability of male-to-female IPV at year 3 was stronger for females ($\beta = .14, p < .05$) than males ($\beta = .04, p < .05$).

Racial/Ethnic Differences in Acceptability of Male-to-Female IPV—For race/ethnicity, MGM analyses demonstrated that constraining the stability paths for acceptability

of male-to-female IPV to be equal across race/ethnicity resulted in a non-significant change in the model, $\chi^2(10) = 6.56, p > .05$. Similarly, constraining the influence of acceptability of male-to-female IPV on psychological IPV and physical IPV to be equal across race/ethnicity resulted in non-significant changes to the model, $\chi^2(10) = 11.17, p > .05$ and $\chi^2(10) = 7.72, p > .05$, respectively. Similarly, constraining the influence of psychological and physical IPV on acceptability of male-to-female IPV to be equal across race/ethnicity did not result in a significant change to the model, $\chi^2(20) = 30.44, p > .05$.

Acceptability of Female-to-Male IPV

The cross-lagged path model for acceptability of female-to-male IPV demonstrated acceptable fit to the data, $\chi^2(90) = 368.47, p < .05$, RMSEA = .05; CFI = 91. As displayed in Figure 2 and Table 3, acceptability of female-to-male IPV remained stable across the six years. Examination of the associations between constructs over time (i.e., cross-lagged paths) revealed some interesting patterns. Acceptability of female-to-male IPV at year 5 predicted increases in physical IPV perpetration at year 6. However, acceptability of female-to-male IPV did not predict psychological IPV over time. Moreover, psychological and physical IPV did not predict acceptability of female-to-male IPV over time.

Gender Differences in Acceptability of Female-to-Male IPV—Results of MGM analyses demonstrated that constraining the stability paths for acceptability of female-to-male IPV to be equal across gender resulted in a non-significant change in the model, $\chi^2(5) = 4.63, p > .05$. Similarly, constraining the influence of acceptability of female-to-male IPV on psychological IPV and physical IPV to be equal across gender resulted in non-significant changes to the model, $\chi^2(5) = 4.70, p > .05$ and $\chi^2(5) = 6.35, p > .05$, respectively. Lastly, constraining the influence of psychological and physical IPV on acceptability of female-to-male IPV to be equal across gender did not result in a significant change to the model, $\chi^2(10) = 13.91, p > .05$.

Racial/Ethnic Differences in Acceptability of Female-to-Male IPV—For race/ethnicity, MGM analyses demonstrated that constraining the stability paths for acceptability of female-to-male IPV to be equal across race/ethnicity resulted in a non-significant change in the model, $\chi^2(10) = 9.95, p > .05$. Similarly, constraining the influence of acceptability of female-to-male IPV on psychological IPV and physical IPV to be equal across race/ethnicity resulted in non-significant changes to the model, $\chi^2(10) = 14.59, p > .05$ and $\chi^2(10) = 9.70, p > .05$, respectively. Similarly, constraining the influence of psychological and physical IPV on acceptability of female-to-male IPV to be equal across race/ethnicity did not result in a significant change to the model, $\chi^2(20) = 26.46, p > .05$.

Discussion

Beliefs about the acceptability of IPV are an important component to many theoretical models of IPV perpetration (see Shorey et al., 2008) and has been shown to be a consistent predictor of adolescent IPV perpetration (Orpinas et al., 2013; Schumacher & Slep, 2004), although this literature has been limited in several important ways. Notably, minimal research has examined potential racial/ethnic differences in this association, and no known

research has examined whether this association remains stable from adolescence to young adulthood. Moreover, theoretical models of IPV have failed to consider what impact, if any, race/ethnicity and changes in development may have on the association between acceptability of IPV and one's own IPV perpetration. Research designed to fill these gaps in the literature will have important implications for IPV prevention and intervention programs, which commonly target beliefs about the acceptability of IPV. Overall, findings did not support our hypotheses that beliefs about the acceptability of IPV and one's own IPV perpetration would be consistently associated from adolescence to young adulthood.

Despite findings showing that the acceptability of male-to-female and female-to-male IPV were modestly stable from adolescence to young adulthood, few significant associations with IPV perpetration were evident. Specifically, acceptability of female-to-male IPV at year 5 was only associated with physical IPV perpetration at year 6. In addition, psychological IPV perpetration at year 1 was only associated with acceptability of male-to-female IPV at year 2, and physical IPV perpetration at year 2 was only associated with acceptability of male-to-female IPV at year 3. Moreover, significant effects, when evident, were small in magnitude. Thus, our findings suggest that, unlike in adolescence, acceptability of IPV is a weak and inconsistent predictor of IPV during the transition to young adulthood. As adolescents age, it is plausible that they are better able to recognize that IPV may result in negative consequences for themselves (e.g., arrest, relationship discord), which may override beliefs about the acceptability of IPV. It stands to reason, then, that during the transition to young adulthood, there are other risk factors that exert a stronger influence on risk for IPV (e.g., substance use, anger, emotion dysregulation). This is also consistent with a large body of research which has demonstrated weak-to-small associations between attitudes and behavior (Glasman & Albarracin, 2006). As discussed below, these findings call into question the importance of targeting beliefs about the acceptability of violence in IPV prevention programs with young adults, which is currently a target of intervention in the majority of these programs (e.g., Foshee et al., 2014; Wolfe et al., 2003).

Findings also showed only one gender difference and no racial/ethnic differences in associations over time. Specifically, the strength of the association between physical IPV at year two and acceptability of male-to-female IPV was stronger for females than males. In addition, our results generally suggest that beliefs about the acceptability of IPV may lose their influence on the perpetration of IPV during the transition to young adulthood regardless of gender or race/ethnicity. Minimal attention has been placed on potential racial/ethnic differences in this association in prior research with adolescents, and our findings provide initial evidence that acceptability of IPV may exert a similar role regardless of one's race/ethnicity. These findings are preliminary, however, and replication is needed before firm conclusions can be made. Still, these findings are counter to the importance placed on beliefs about the acceptability of IPV in many theoretical models of IPV, as well as the importance placed on changing attitudes toward IPV in existing IPV prevention programs. Our findings suggest that revisions to theoretical models of IPV are needed, particularly models on risk for IPV during the high-risk transition from adolescence to young adulthood.

Research Implications

There are a number of areas for future research on the association between acceptability of IPV and the perpetration of IPV. Although our findings did not show consistent associations among constructs over time, it is plausible that beliefs about the acceptability of IPV may interact in a synergistic way with other known IPV risk factors to increase the risk for IPV perpetration. For instance, research with adolescent boys has shown that traditional, masculine gender role attitudes interact with beliefs about the acceptability of IPV to increase the risk for physical IPV perpetration (Reyes, Foshee, Niolon, Reidy, & Hall, 2016). Unfortunately, minimal research has examined whether acceptability of IPV interacts with other risk factors to increase the risk for IPV, and no research has examined this during the transition to young adulthood. Because alcohol use, emotion dysregulation, and anger, for example are all robustly associated with IPV perpetration among young adults (Dardis, Dixon, Edwards, & Turchik, 2015; Shorey, Stuart, & Cornelius, 2011), future research should examine whether these risk factors synergistically interact with acceptability of IPV to further increase the risk for IPV perpetration during the transition from adolescence to young adulthood.

An additional area for future research is to examine beliefs about the acceptability of different forms of IPV, including sexual, cyber, and stalking. Indeed, research in this area is lacking despite high levels of these forms of IPV among adolescents and young adults (e.g., Shorey, Cornelius, & Strauss, 2015; Temple et al., 2016). Knowing whether beliefs about the acceptability of cyber IPV predicts actual cyber IPV perpetration, for example, may provide important information for IPV prevention and intervention programs that aim to reduce multiple forms of IPV. Consistent with the current study and most prior research, future investigations should also examine whether the acceptability of these different forms of IPV vary depending on whether it is perpetrated by males or females.

Clinical and Policy Implications

Our findings demonstrated that, overall, acceptability of IPV (male-to-female and female-to-male) was not a strong predictor of future IPV perpetration from adolescence to young adulthood, which has important implications for IPV prevention and intervention programs. As mentioned earlier, adolescent IPV programs routinely target beliefs about the acceptability of IPV in their programs (Foshee et al., 2014; Wolfe et al., 2003), and prior research suggests that reductions in acceptability of IPV mediate intervention outcomes (Foshee et al., 2005). However, these prior studies focused on adolescent populations, and not people transitioning from adolescence to young adulthood. Our findings suggest that focusing on beliefs about the acceptability of IPV in prevention and intervention programs during the transition from adolescence to young adulthood may be less useful than in adolescent-specific programming.

Indeed, researchers have argued that IPV prevention and intervention programs for young adults should focus their efforts on targeting malleable behavioral risk factors for IPV (i.e., alcohol use, emotion dysregulation) rather than attitudinal change (Cornelius & Resseguie, 2007; Shorey et al., 2012). Our results provide support for these claims, as acceptability of IPV was a weak and inconsistent predictor of IPV perpetration from adolescence to young

adulthood. In addition, the mean levels of acceptability of IPV in the sample were low, suggesting that there may be little room for improvement in these attitudes. This is not to suggest that IPV prevention and intervention programs should be absent of any discussion of acceptability of IPV. Rather, it appears that the primary focus of these programs, specifically for young adults, should be on other risk factors that are known to be strongly and consistently associated with IPV perpetration (e.g., alcohol, emotion dysregulation).

Limitations

The results of the current study should be interpreted in light of several limitations. Overall, the acceptability of IPV was low across time, which may have contributed to the non-significant findings, as there was low variability with this construct. Moreover, the measure of acceptability of IPV only assessed two types of IPV (psychological and physical), and future studies should utilize measures that capture beliefs about different forms of IPV (e.g., sexual, cyber). Prior research has also shown that misreporting on IPV measures, such as false positives and reporting violence which was not taken seriously by the respondent, is a prevalent problem (Ackerman, 2015). We did not assess for this possibility in the current study and future research should account for this. Thirty-eight percent of adolescents approached for participation did not return a signed parental consent, and it is possible these adolescents differed from those who participated. The sample was drawn from a specific region of the United States and therefore may not generalize to adolescents and young adults in different geographic regions. Future research should utilize nationally representative samples of adolescents to increase generalizability of findings.

Moreover, although we had a large percentage of Hispanic, White, and Black/African American participants, we were underpowered to examine other racial groups individually (e.g., Asian American, American Indian) and did not obtain comprehensive information concerning racial or ethnic heritage. Future research should attempt to further increase the diversity of their samples, including samples of adolescents who identify as non-heterosexual or who identify with a gender that is different than their biological sex. Race/ethnicity may also serve as a proxy for other important constructs, such as burden of discrimination and cultural-specific values, and it is plausible these constructs would impact the relationship of interest in the current study. Future research should consider this possibility. We also did not utilize comprehensive information on socioeconomic status (SES) and future research should consider how this impacts the relationship between acceptability of IPV, race/ethnicity, and one's own perpetration of IPV.

Conclusions

In summary, results from the current study demonstrated few significant associations between beliefs about the acceptability of IPV and the perpetration of IPV from adolescence to young adulthood. Moreover, few differences were evident in associations over time across males and females, and no differences were evident across racial/ethnic groups. This was the first study to examine these associations from adolescence to young adulthood, a time period when risk for IPV is heightened. Although targeting beliefs about the acceptability of IPV may be important in adolescent IPV prevention and intervention programs, our findings

suggest that programming for young adults may not need to focus on beliefs about the acceptability of IPV.

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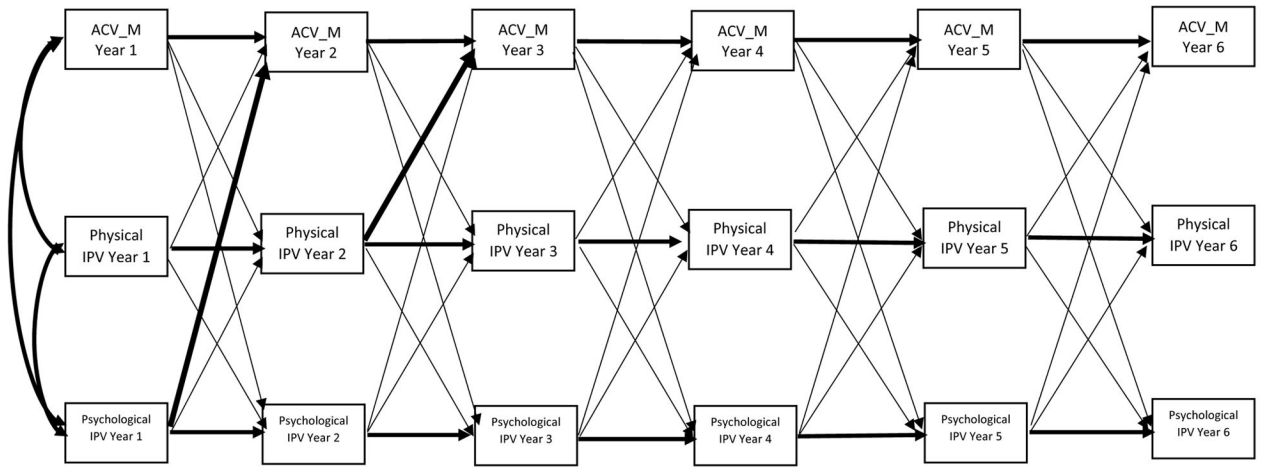


Figure 1. Longitudinal Associations between Acceptability of Male-to-Female IPV and IPV. Bolded paths are significant at $p < .05$. ACV_M = Acceptability of male-to-female IPV.

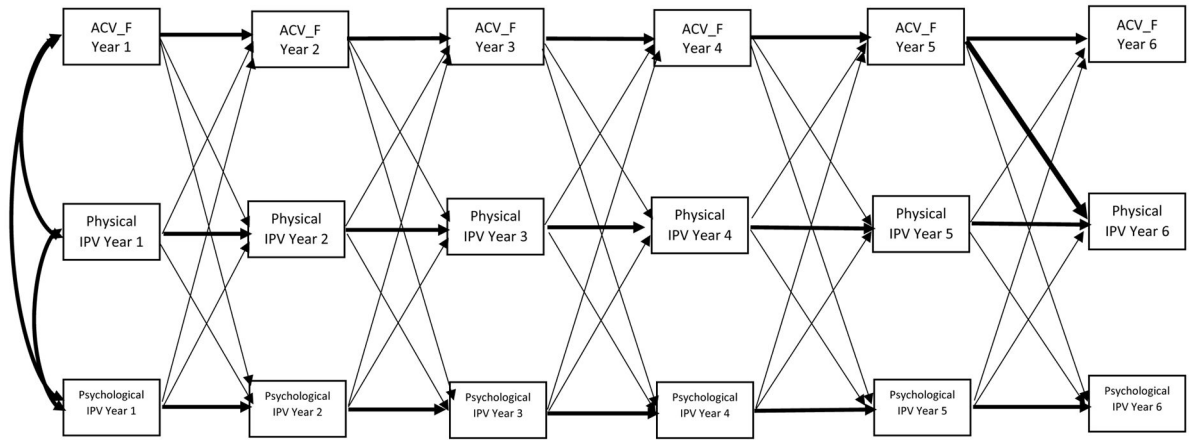


Figure 2. Longitudinal Associations between Acceptability of Female-to-Male IPV and IPV. Bolded paths are significant at $p < .05$. ACV_F = Acceptability of female-to-male IPV.

Table 1

Means and standard deviations among study variables.

	Year 1 <i>M (SD)</i>	Year 2 <i>M (SD)</i>	Year 3 <i>M (SD)</i>	Year 4 <i>M (SD)</i>	Year 5 <i>M (SD)</i>	Year 6 <i>M (SD)</i>
Acceptability of Male-to-Female IPV	3.71 (1.31)	3.67 (1.32)	3.54 (1.18)	3.52 (1.22)	3.46 (1.15)	3.49 (1.31)
Acceptability of Female-to-Male IPV	4.71 (2.02)	4.33 (1.82)	4.06 (1.71)	3.89 (1.63)	3.73 (1.54)	3.66 (1.52)
Psychological IPV	3.45 (2.70)	3.23 (2.72)	3.26 (2.75)	3.06 (2.86)	2.94 (2.89)	2.99 (2.92)
Physical IPV	.41 (.93)	.37 (.89)	.38 (.98)	.30 (.81)	.31 (.82)	.39 (.95)

Table 2

Standardized betas and standard errors for cross-lagged paths with acceptability of male-to-female IPV.

Predictor →	ACV_M Year 2 β (SE)	ACV_M Year 3 β (SE)	ACV_M Year 4 β (SE)	ACV_M Year 5 β (SE)	ACV_M Year 6 β (SE)
Prior Year ACV_M	.43 (.05) ***	.39 (.05) ***	.52 (.06) ***	.54 (.06) ***	.51 (.06) ***
Prior Year Psychological IPV	.07 (.03) *	.01 (.04)	-.01 (.04)	-.04 (.04)	-.01 (.04)
Prior Year Physical IPV	.06 (.04)	.09 (.05) *	-.00 (.04)	.07 (.05)	-.03 (.04)
Psychological IPV Year 2					
	β (SE)	Psychological IPV Year 3 β (SE)	Psychological IPV Year 4 β (SE)	Psychological IPV Year 5 β (SE)	Psychological IPV Year 6 β (SE)
Prior Year ACV_M	.01 (.03)	-.03 (.03)	-.01 (.04)	.04 (.04)	-.00 (.03)
Prior Year Psychological IPV	.51 (.03) ***	.55 (.03) ***	.55 (.04) ***	.61 (.03) ***	.50 (.04) ***
Prior Year Physical IPV	.10 (.04) **	.05 (.04)	.08 (.04)	-.03 (.04)	.07 (.05)
Physical IPV Year 2					
	β (SE)	Physical IPV Year 3 β (SE)	Physical IPV Year 4 β (SE)	Physical IPV Year 5 β (SE)	Physical IPV Year 6 β (SE)
Prior Year ACV_M	.06 (.04)	.01 (.03)	.03 (.04)	-.02 (.04)	.06 (.05)
Prior Year Psychological IPV	.13 (.03) ***	.11 (.04) **	.16 (.04) ***	.20 (.05) ***	.14 (.04) **
Prior Year Physical IPV	.38 (.05) ***	.47 (.06) ***	.39 (.06) ***	.32 (.07) ***	.35 (.06) ***

Note: ACV_M = Acceptability of male-to-female IPV.

* $p < .05$,

** $p < .01$,

*** $p < .001$

Table 3

Standardized betas and standard errors for cross-lagged paths with acceptability of female-to-male IPV.

Predictor →	ACV_F Year 2 β (SE)	ACV_F Year 3 β (SE)	ACV_F Year 4 β (SE)	ACV_F Year 5 β (SE)	ACV_F Year 6 β (SE)
Prior Year ACV_F	.47 (.03)***	.044 (.04)***	.55 (.04)***	.54 (.04)***	.52 (.04)***
Prior Year Psychological IPV	.04 (.03)	-.01 (.03)	-.07 (.03)	-.03 (.04)	.02 (.04)
Prior Year Physical IPV	.07 (.04)	.04 (.04)	.03 (.04)	.06 (.06)	-.05 (.05)
Psychological IPV Year 2 Psychological IPV Year 3 Psychological IPV Year 4 Psychological IPV Year 5 Psychological IPV Year 6					
Prior Year ACV_F	.03 (.03)	-.03 (.03)	-.06 (.03)	.04 (.03)	.04 (.03)
Prior Year Psychological IPV	.50 (.03)***	.55 (.03)***	.55 (.04)***	.61 (.04)***	.50 (.04)***
Prior Year Physical IPV	.09 (.04)*	.05 (.04)	.09 (.04)*	-.03 (.04)	.07 (.05)
Physical IPV Year 2 Physical IPV Year 3 Physical IPV Year 4 Physical IPV Year 5 Physical IPV Year 6					
Prior Year ACV_F	.04 (.03)	.04 (.03)	.02 (.04)	-.01 (.04)	.09 (.05)*
Prior Year Psychological IPV	.13 (.03)***	.10 (.04)**	.16 (.04)***	.20 (.05)***	.14 (.04)**
Prior Year Physical IPV	.38 (.05)***	.46 (.05)***	.39 (.06)***	.32 (.07)***	.35 (.06)***

Note: ACV_F = Acceptability of female-to-male IPV.

* $p < .05$,

** $p < .01$,

*** $p < .001$