Neighborhood Norms, Disadvantage, and Intimate Partner Violence Perpetration Across Adolescence and Young Adulthood

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Abstract

Most theoretical treatments of intimate partner violence (IPV) focus on individual-level processes. More recently, scholars have begun to examine the role of macro-level factors. Results of that research indicate that social ties facilitate the diffusion of cultural norms—including tolerance of deviance/violence—across neighborhoods. Yet the influence of the neighborhood normative climate likely extends beyond norms regarding the use of violence, shaping cultural understanding about dating and the opposite sex. Using five waves of data from the Toledo Adolescent Relationships Study (TARS), the current investigation examines the multilevel association between dating norms, gender mistrust, and IPV perpetration across adolescence and young adulthood. Preliminary results indicate that the neighborhood normative climate exerts a positive influence on patterns of IPV perpetration over time, net of individual attitudes and beliefs. Furthermore, this effect varies across levels of neighborhood disadvantage. We discuss the implications of these findings for targeted community-based approaches to IPV intervention/prevention.

INTRODUCTION

In the past decade, increasing attention has been given to intimate partner violence (IPV), as a growing body of research has explored its risk factors, correlates, and consequences (see Capaldi et al., 2012 for a review). Although most of this work is restricted to adult populations, survey and official data indicate that IPV is particularly frequent among young adults (Brown & Bulanda, 2008; Halpern et al., 2009). In fact, despite the focus on samples of older, married individuals, IPV risk seems to peak in late adolescence and young adulthood and then decline with age (Fritz, Patti, & O'Leary, 2004; Johnson, Giordano, Manning, & Longmore, 2014; Kim, Laurent, Capaldi, & Feingold, 2008). Overall, recent estimates indicate that roughly 1 in 3 women (32.9%) and more than 1 in 4 men (28.2%) have experienced physical violence by an intimate partner in their lifetimes, and nearly half of women (47%) and two-fifths of men (39%) experienced this violence when they were between the ages of 18 and 24 (Black et al., 2011). Thus, it is important to focus empirical attention on this public health problem, and particularly on factors contributing to increased risk among this demographic group.

Most theoretical approaches to IPV have focused on individual-level correlates including age, race, gender, and socioeconomic status (e.g., Kim et al., 2008; Herrera, Wiersma, & Cleveland, 2008; Capaldi, Kim, & Shortt, 2007; Cunradi, Caetano, & Schafer, 2002), largely ignoring the role of structural or macro-level factors. Recently, more scholarly attention has been paid to the influence of neighborhood context on IPV (e.g., Benson, Wooldredge, Thistlewaite, & Fox, 2004; Button, 2008; Caetano, Ramisetty-Mikler, Harris, 2010; Capaldi, Knoble, Shortt, & Kim, 2012; Emery et al., 2011; Frye & O'Campo, 2011; VanderEnde et al., 2012; Wright, 2012). Yet the theoretical focus of this growing body of scholarship has been narrow, drawing almost exclusively on aspects of social disorganization theory (Shaw & McKay,

1942) to unpack the role of social processes in the link between structural factors and IPV. Within this tradition, scholars have examined the role of cultural norms; a recent review of the literature on neighborhood context and IPV indicates that there is a general consensus that neighborhood norms are important predictors of IPV (Pinchevsky & Wright, 2012), including cultural and social norms about family violence, "wife beating," and deviance (Browning, 2002; Koening et al., 2006; Wright & Benson, 2010). Thus, neighborhood social ties—including friends and more distal network members—can facilitate the diffusion of cultural norms consistent with the use of violence (Kornhauser, 1978; Warner, 2003). Limited work, however, has examined whether a broader range of norms—including those more directly linked to the nature and quality of romantic relationships—influence the use of violence within the dyadic context. This is surprising given the increasing focus on relational factors with regard to IPV (e.g., Capaldi & Kim, 2007; Fritz, Slep, & O'Leary, 2012; Giordano, Soto, Manning, & Longmore, 2010; Straus, 2011), and the extensive amount of scholarship linking jealousy/cheating and gender attitudes to IPV at the individual level (e.g., Giordano et al., 2010; Giordano, Copp, Longmore, & Manning, 2013; Langhinrichsen-Rohling, McCullars, & Misra, 2012; Reed et al., 2011). Furthermore, existing theorizing about these structural and social influence processes has not been fully incorporated into intervention and prevention strategies (Eckhardt et al., 2013; Whitaker et al., 2006).

Although scholarship in the area of neighborhood context and IPV is growing, most studies are confined to cross-sectional snapshots of these social influences processes. Despite recent methodological advances to facilitate the assessment of multilevel models in a longitudinal framework (Curran, McGinley, Serrano, & Burfeind, 2012; Little, Bovaird, & Card, 2012; Singer & Willet, 2003), there remains a clear need for more longitudinal research in this

area. Neighborhood scholars have argued that just as individuals are subject to change over time, neighborhoods are "dynamic entities" (Sampson, Morenoff, & Gannon-Rowley, 2002). Neighborhood changes may be the result of a number of factors including temporal or economic influences, or changes in neighborhood composition. Failure to account for these shifts over time may potentially lead to an inaccurate portrait of neighborhood effects on individual behavior. Furthermore, individuals themselves are not stagnant features of the neighborhood, but rather are subject to moves over time, and accordingly, are exposed to a range of social environments based on their neighborhood residence. Finally, given the particularly salient role of peer influence during the adolescent period (Giordano, 2003; Hartup, 1996; Warr, 2002), as well as the limited mobility of the adolescent population as compared to their older-aged peers, there is the potential for neighborhood effects on individual outcomes to vary over time. All of these factors constitute dynamics of change that remain underdeveloped in contextual research. The use of longitudinal designs within contextual frameworks will greatly contribute to our understanding of the dynamic, and interactive, role of these neighborhood social processes.

Drawing on five waves of data from the Toledo Adolescent Relationships Study (TARS), the current investigation employs a 3-level hierarchical generalized linear model (HGLM) to examine the multilevel association between age and IPV perpetration among a diverse sample of young men and women spanning the ages of 13-28 years. More specifically, we assess how changes in the neighborhood context, including objective markers of disadvantage, dating norms, and attitudes about the opposite sex, correspond to changes in reports of IPV perpetration from adolescence to young adulthood. Our methodological approach, which includes time-varying individual- and aggregate-level measures of the neighborhood context, allows us to assess the extent to which neighborhood-level variation in norms and beliefs influence IPV perpetration net

of changes in one's own attitudes and beliefs over time. We also examine a number of moderating effects, including whether the influence of neighborhood normative climate on patterns of IPV perpetration is conditioned by age, gender, and neighborhood context.

BACKGROUND

Contextual Influences on Adolescent and Young Adult Behavior

The effect of neighborhood residence on children and youth is well-documented in the literature, and over the past few decades there has been a resurgence in research examining the role of neighborhood structure on delinquency and crime, as well as other problem behaviors (e.g., Bursik, 1988; Kornhauser, 1978; Sampson, 1992; Sampson & Groves, 1989). Taken as a whole, this research suggests that there is an association between neighborhood socioeconomic status and the well-being of children and adolescents (see Leventhal & Brooks-Gunn, 2000 for a review). For example, scholars have identified a link between low-SES and reported behavior problems—particularly externalizing behaviors (Chase-Lansdale, Gordon, Brooks-Gunn, & Klebanov, 1997; Duncan, Brooks-Gunn, & Klebanov, 1994; Ludwig, Duncan, & Hirschfield, 1998). Others have found a negative association between SES and delinquency, such that the frequency and severity of delinquency and crime was lower in more affluent communities (e.g., Sampson & Groves, 1989; Loeber & Wikstrom, 1993). Most studies of neighborhood context and the well-being of youth focus on a specific period of adolescence or young adulthood and thus are unable to determine whether neighborhood effects are constant across these developmental periods. Loeber and Wikstrom (1993), however, found that the effect of neighborhood residence on problem behavior was stronger among younger adolescents. Thus, neighborhoods appear to be an important correlate of adolescent and young adult behavior, and

this effect may be conditioned by age such that the effect of neighborhood context lessens over time.

Despite the apparent connection between the neighborhood environment and youth behavior, few empirical studies have examined neighborhood effects on IPV among adolescent and young adult samples. In the literature on adult IPV, however, an increasing number of scholars have begun to consider the social context of IPV. This work primarily examines whether neighborhood social processes influence participation in IPV (e.g., Browning, 2002; Benson, Fox, DeMaris, & Van Wyk, 2003; Cunradi, Caetano, Clark, & Schafer, 2000; Miles-Doan, 1998), consistent with social disorganization theory. Findings from that research indicate that neighborhood structural factors—particularly concentrated disadvantage—have significant effects on IPV net of individual-level characteristics (i.e., race, SES, and social support). In one of the few studies of neighborhood predictors of partner violence among adolescents and young adults, Jain and colleagues (2010) found that the significant association between neighborhood characteristics and dating violence was partially mediated by collective efficacy, and that the effect of collective efficacy varied by neighborhood poverty. In sum, although most contextual examinations of IPV looked at violence against older, married women, there is evidence of significant neighborhood effects on IPV. Additionally, neighborhood social processes appear to play a role, though their effect may vary across levels of disadvantage.

Community Norms and Violence

Criminological research on subcultural values indicates that pro-violence norms are more likely to exist in disadvantaged settings (e.g., Anderson, 1999; Cohen, 1955; Messerschmidt, 1993; Willis, 1977), and thus there is potential for wider attitudinal acceptance of IPV among lower-class, minority individuals. Accordingly, individuals in disadvantaged contexts may rely

on a unique set of cognitive scripts to guide their behavior in social interactions (Luckenbill & Doyle, 1982; Wilkinson & Fagan, 1996; see also McGloin, Schreck, Stewart, & Ousey, 2011), including a heightened proclivity for aggression. Neighborhood norms have been widely examined in relation to neighborhood levels of crime and violence (e.g., Anderson, 1999; Brezina, Agnew, Cullen, & Wright, 2004; Stewart & Simons, 2010). A similar line of theorizing has been extended to research on IPV as scholars have investigated whether neighborhood norms of violence are related to the use of violence between romantic partners (e.g., Browning, 2002; Koening et al., 2006; Wright & Benson, 2010). Using multilevel regression techniques, Browning (2002) found that attitudes about family violence (i.e., fighting between friends/families is a private matter) were positively associated with IPV. Similarly, Wright and Benson (2010) found that attitudes regarding whether family violence is "nobody else's business" were associated with IPV risk, but a general intolerance of deviance was unrelated to IPV. A more direct measure of community endorsement of IPV—which included specific attitudes about "wife beating"—was a particularly salient predictor of IPV among a sample of Indian men (Koening et al., 2006). A recent investigation using a sample of adolescent urban boys (aged 14 to 20 years) revealed that IPV perpetration was associated with perceptions of violent activity within the neighborhood (Reed et al., 2011). Overall, neighborhood norms regarding the use of violence generally, and IPV specifically, appear to influence involvement in partner violence across a diverse range of samples.

Beyond norms of violence, the social environment in which individuals are embedded facilitates the transmission of messages regarding conduct in other facets of one's life—including relationships with the opposite sex—and this nexus of norms, attitudes, and beliefs makes up the neighborhood normative climate. Although collective efficacy does involve a

norm-based component (shared expectations), and research findings based on this social process are prolific, the broader normative climate remains vastly understudied (Sampson & Graif, 2009). Particularly during the adolescent period, the neighborhood normative climate plays an important role in the socialization process, as individuals observe the behavior of the wider culture to which they are exposed (Jencks & Mayer, 1990; Harding, 2009). For example, research on "sex codes" indicates that subcultural values regarding the onset and frequency of sexual activity are transmitted through adolescent peer networks within the neighborhood (Anderson, 1999). Consistent with this line of theorizing, Warner and colleagues (2011) find that sexual attitudes at the neighborhood level predict adolescent sexual behaviors. A similar approach is generalizable to outcomes beyond sexual activity, including IPV, to allow for examination of the pathways through which social environments influence individual behavior, as well as the role of social and cultural factors. To date, however, few studies have examined how a broader range of neighborhood norms shape conduct in romantic relationships, including the use of IPV.

Attitudes about Dating and the Opposite Sex

Research on marriage has indicated that gender mistrust influences lower marriage rates, and higher levels of relationship instability—particularly in disadvantaged contexts (Carlson et al., 2004; Edin & Kefalas, 2005). Nevertheless, individuals continue to search for romantic partners and to enter dating and cohabiting relationship, despite high levels of distrust (Lichter & Qian, 2008; Manning & Smock, 2005). Gender mistrust, however, has been linked to qualities of dating relationships including jealousy and verbal conflict (Nomaguchi, Giordano, Manning, & Longmore, 2011). IPV research indicates that levels of trust may vary based on the experience of violence, often focusing on gender mistrust as an outcome of the abuse (e.g.,

Cherlin, Burton, Hurt, & Purvin, 2004). Yet individuals begin to develop negative views of the opposite sex early in the life course—often prior to the onset of dating. These views are shaped within the family, as well as the broader social context of adolescents. Moreover, issues of jealousy and trust are commonly linked to IPV. Research indicates that infidelity is a key "domain of contestation" and represents a "bottom line" in disputes that escalate to violence (Giordano et al., 2013). Whereas concerns about infidelity are associated with actual cheating behaviors, such concerns also stem from less objective criteria including dating norms regarding sexual exclusivity. Few studies have examined gender mistrust among adolescents, and fewer still have considered whether neighborhood indicators of dating norms or gender mistrust influence IPV involvement. Furthermore, despite the well-documented link between issues of trust and jealousy and IPV, the association between gender mistrust and IPV remains underdeveloped. Dating norms and attitudes toward the opposite sex likely shape the interactional processes of couples, thus influencing patterns of violent behavior, and these attitudes and beliefs are likely influenced by the broader contexts within which individuals are embedded.

CURRENT STUDY

In the current investigation, we use data from the Toledo Adolescent Relationships Study (TARS) to examine the multilevel association between neighborhood normative climate and IPV, controlling for individual-level attitudes and beliefs as well as a number of well-documented risk factors. Much of what we know about neighborhood context and IPV comes from work examining the role of neighborhood structure and neighborhood social processes in IPV among older, married adults. Recent work has begun to examine these factors in relation to IPV among adolescents and young adults, acknowledging the salience of the neighborhood

social context in predicting adolescent and young adult outcomes. Most of this work draws on the organizing principles of social disorganization theory, thus implicating a range of social processes as mediating mechanisms in the link between neighborhood structure and IPV. Yet our focus on the neighborhood normative climate, including dating norms and gender mistrust, diverges from a traditional social disorganization model. That is, our focus is not on explaining the effect of concentrated disadvantage on IPV through a range of mediating social processes. Rather, our goal is to demonstrate a link between the neighborhood normative climate and IPV perpetration not only above and beyond the effects of individuals' attitudes and beliefs, but net of neighborhood disadvantage.

Furthermore, most prior work in this area is cross-sectional. This is problematic because we know that neighborhoods are dynamic, and subject to change over time. In addition to economic forces that may trigger changes in neighborhood conditions, neighborhoods are constantly undergoing compositional changes that likely influence the neighborhood normative climate. At the micro-level, individuals are also moving over time and thus are subject to changes in normative climates as they move from one area to another. Finally, given their limited mobility, adolescents may be particularly embedded in their social contexts, and accordingly, individuals may be especially susceptible to neighborhood-level factors during the adolescent period. Using longitudinal data, we are able to account for this dynamism at the individual- and neighborhood-levels. First, we the examine portion of variation in IPV perpetration that takes place over time, between individuals, and between neighborhoods. Second, we assess the extent to which individuals' attitudes and beliefs about dating and the opposite sex explain patterns of IPV perpetration over time. Third, we test whether the neighborhood normative climate with regard to dating and gender attitudes contributes to our

understanding of IPV perpetration over time net of individual-level attitudes and beliefs. Our models control for a range of time-stable characteristics of the individual including gender, age, race/ethnicity, family structure, and mother's education. We will examine a range of first- and second-order interactions. Of particular interest is whether the effect of the neighborhood normative climate on patterns of IPV perpetration differs for males and females. Additionally, we will test whether the effect of the neighborhood normative climate on IPV perpetration varies across levels of disadvantage, and further, whether this effect is conditioned by gender.

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 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 11^{th} 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 current analyses rely on structured interviews conducted at waves 1 through 5 with a few exclusions including respondents who reported no dating partners over the five waves and those reporting their race as "other." Additionally, the youngest (12 years) and oldest (29 years) observations were dropped as small cell sizes precluded meaningful analyses of these groups. Because of the multilevel nature of these analyses, individuals with missing contextual information were excluded, as were tracts with fewer than 2 respondents. The final analytic

sample (n = 1238) represents an 11-year accelerated cohort design with three overlapping cohorts (ages 13 to 28 years) contributing 6158 cases and spread across 121 census tracts.

Measures

Dependent Variable

IPV perpetration was assessed across all five waves using four items from the Conflict Tactics Scale (Straus, Hamby, Boney-McCoy, & Sugarman, 1996). Respondents were asked how often they committed the following acts against their current/most recent partner: "thrown something at him/her;" "slapped him/her in the face or head with an open hand;" and "hit him/her." Responses were scored on a 5-point scale that ranged from 1 (never) to 5 (very often). 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

Level 1. Dating norms was a single item assessing respondents' level of agreement with the following: "It's ok to date more than one person at a time" (responses ranged from 1 "strongly disagree" to 5 "strongly agree"). *Gender mistrust* was based on a single item: "You can't trust most girls/guys" (responses ranged from 1 "strongly disagree" to 5 "strongly agree"). These level 1 variables represent time-varying individual level measures. Additionally, responses were aggregated to the neighborhood level, and entered as time-varying contextual measures. In this way, we were able to determine whether neighborhood structural factors contributed to patterns of IPV perpetration over time above and beyond individual attitudes and beliefs.

Level 2. The focus of this investigation is on how changes in the neighborhood context correspond to changes in reports of IPV perpetration. We control for a number of between-

subjects factors including gender, race/ethnicity, family structure, and mother's education. The focal variables, however, include our time-varying measures of neighborhood context. At the between-subject level, of particular interest is whether the effect of neighborhood normative climate on IPV perpetration is conditioned by gender.

Level 3. The neighborhood economic indicators (measured at the tract level) include the proportion of households below the poverty line, proportion of households receiving public assistance, proportion of the population over 16 who are unemployed, and the proportion of female-headed households. Following prior research using the TARS contextual data (Warner et al. 2011), and research concluding that it is the combined effect of multiple disadvantages that defines the neighborhood socioeconomic context for residents (Kubrin and Weitzer 2003; Sampson and Wilson 1995), we combine these items into a summed scale of *neighborhood disadvantage.*

ANALYTIC STRATEGY

3-level hierarchical logistic regression models were used to examine the multilevel association between neighborhood normative climate and IPV perpetration. Models were estimated using HLM 7. The analyses consisted of several stages. First, an unconditional model was estimated to determine the amount of variation in IPV that occurs within individuals (over time), between individuals, and between neighborhoods. From this unconditional model, the intraclass correlation (ICC) was computed to determine the total variation that occurs between individuals, and between census tracts. Assuming a latent variable approach (Guo & Zhao, 2000; Teachman, 2011) the intra-class correlations are estimated by $\sigma^2_u / (\sigma^2_u + \sigma^2_e)$, where σ^2_u is the variance of the error term and σ^2_e is the variance of the standard logistic distribution ($\pi^2/3$).

In our sample, 20% of the variation in IPV perpetration occurs between individuals, including 7% which occurs between neighborhoods.

Next, we fit an unconditional growth model to determine the functional form of IPV perpetration over time. Models were examined using linear, quadratic, and cubic functions of age. The best model fit was achieved using the quadratic function of age, suggesting that the average trajectory of IPV perpetration over time for the full sample can be depicted by an inverted u-shape curve, in which IPV perpetration peaks during young adulthood and then declines with age.

In order to explain within-individual variation in trajectories of IPV perpetration over time, we began by entering a series of time-varying covariates at level-1. The results described below are based on preliminary analyses, but in future models, a number of well-documented risk factors will be included as control variables in the level-2 model including gender, race/ethnicity, family structure, and mother's education. Our measure of neighborhood disadvantage was entered at level 3 to determine whether the time-varying effect of normative climate varied across contexts of disadvantage. Thus, focusing on the level-one time-varying and level-three effects, our composite model was entered as follows:

$$\eta_{tij} = \gamma_{000} + \gamma_{100}*AGE_{tij} + \gamma_{200}*AGESQ_{tij} +$$
$$\gamma_{300}*DATINGNORMS_{tij} + \gamma_{400}*AGGDATINGNORMS_{tij}$$
$$+ \gamma_{401}*AGGDATINGNORMS_{tij}*DISADVANTAGE_{j} + r_{0ij} + u_{00j}$$

An identical procedure was followed to model the effect of gender mistrust on IPV perpetration. Subsequent analyses will assess the moderating effects outlined above. Preliminary results and expected findings are discussed below.

PRELIMINARY/EXPECTED FINDINGS

Table 1 includes the descriptive statistics for the pooled sample and by involvement in IPV perpetration. Overall, roughly 18% of the sample reported IPV perpetration at any given point in time during the study period. Examination of differences by IPV perpetration revealed that those reporting IPV perpetration scored significantly higher on individual attitudes and beliefs regarding dating and the opposite sex. Additionally, they resided in neighborhoods with greater acceptance of "dating more than one person at a time," higher levels of distrust of the opposite sex, and greater levels of disadvantage. A greater percentage of IPV perpetrators were female and belonged to racial minorities (black, Hispanic). As compared to their non-violent counterparts, a larger portion of IPV perpetrators were raised in single parent and "other" family structures. Those in the no IPV perpetration subgroup reported higher levels of mother's education; a smaller percentage of their mothers had less than a high school education while a greater percentage reported having at least a college degree.

Table 2 shows the results of the multilevel analyses examining the association between dating norms and IPV perpetration. Models 1 and 2 represent the unconditional means and unconditional growth models, respectively. Model 3 adds a time-varying individual measure of dating norms. The coefficient for dating norms is significant and positive, suggesting that greater acceptance of "dating more than one person at a time" is positively associated with the odds of perpetrating IPV. In model 4, the aggregate measure of dating norms is included in the model, and contrary to study expectations, the effect of neighborhood-level dating norms is not significant net of individual attitudes. The individual-level measure of dating norms, however, continues to exert a positive effect on the odds of IPV perpetration. Finally, model 5 examines the first-order interaction between dating norms at the aggregate level and neighborhood disadvantage. The interaction term for the cross product of aggregate dating norms and

neighborhood disadvantage is significant and positive. Keeping in mind that the variables are centered at the grand mean, the main effect of neighborhood dating norms (net of individual dating norms) represents its effect on IPV perpetration at average levels of disadvantage. Although this main effect is in the expected direction, it is not significant. The effect of aggregate dating norms on IPV perpetration, however, is exacerbated at higher levels of disadvantage. Thus, in areas with low to moderate levels of disadvantage, the neighborhood normative climate surrounding dating norms appears to have little effect on IPV perpetration net of individual attitudes. At higher levels of disadvantage, however, the effect of neighborhood norms becomes increasingly positive.

Table 3 follows an identical analytic strategy to examine the association between gender mistrust and IPV perpetration. Similar to the results described above, models 1 and 2 represent the unconditional means and unconditional growth models. Model 3 introduces the individual-level time-varying measure of gender mistrust. Results indicate that greater levels of distrust of the opposite sex correspond to heightened risk of IPV perpetration. In model 4, the time-varying aggregate measure of gender mistrust is added to the model. In contrast to the analyses for dating norms, the neighborhood normative climate with respect to gender mistrust exerts a positive influence on the odds of IPV perpetration independent of the effect of individual attitudes and beliefs. Furthermore, examination of the level-3 residual variance suggests that aggregate levels of gender mistrust explain a substantial portion (17%) of the between-neighborhood variation in IPV perpetration. Model 5 assesses whether the effect of neighborhood gender mistrust on IPV perpetration varies across levels of disadvantage. In contrast to the models for dating norms, the coefficient for the cross-product of aggregate gender

mistrust x neighborhood disadvantage is not significant, suggesting that aggregate levels of gender mistrust exert a similar effect on IPV perpetration across contexts of disadvantage.

CONCLUSIONS AND FUTURE DIRECTIONS

IPV is a major public health problem, and although research over the past several decades has made great strides in identifying individual risk factors, we know little about the role of contextual forces. Recently, scholars in the field of IPV have focused increasing attention on neighborhood effects, yet this work overwhelmingly concentrates on the role of social processes (collective efficacy, social ties) in explaining the link between neighborhood disadvantage and IPV. Few studies have examined other neighborhood processes linked to variation in IPV perpetration, particularly with regard to neighborhood norms. And where neighborhood norms have received attention in the IPV literature is with regard to attitudes toward IPV, violence, and deviance. Yet the neighborhood normative climate encompasses a much broader range of attitudes and beliefs. Thus, individuals are exposed to varying norms regarding dating and the opposite sex that likely influence their own opinions about such matters and factor into how they relate to, and interact with, intimate partners.

Furthermore, most studies of IPV are cross-sectional in nature, and this is especially true of contextual examinations of IPV. A key contribution of neighborhoods research has been its focus on dynamic social processes in contrast to compositional factors (Sampson et al., 2002). Thus, it seems ironic that most neighborhood researchers attempt to examine such dynamic aspects of social life using a brief snapshot in time. This investigation overcomes this limitation using longitudinal data to examine whether changes in the neighborhood normative climate correspond to changes in patterns of IPV perpetration over time. Broadly speaking, results indicate that neighborhood norms matter, and additionally, that their effects are conditioned by

neighborhood levels of disadvantage. More specifically dating norms are related to the risk of IPV perpetration, but in general, individual dating norms appear to be more salient than the neighborhood normative climate with regard to such attitudes. However, in more disadvantaged contexts, the effect of neighborhood-level norms regarding the acceptability of "dating more than one person at a time" becomes increasingly positive. With regard to gender mistrust, both individual- and aggregate-level measures of gender mistrust exert independent effects on the odds of IPV perpetration. Additionally, neighborhood levels of gender mistrust explain a substantial portion of the between-neighborhood variation in IPV perpetration. These findings provide an important starting point for research in the area of neighborhoods and IPV, and have important implications for prevention and intervention efforts.

These findings are preliminary, and there are a number of "next steps" that will be taken as this manuscript progresses. First, the measures section outlines several individual characteristics, including gender, race, mother's education, and family structure. These factors will be entered into subsequent analyses at level-two as controls. Additionally, supplemental analyses will examine whether the trajectories of perpetration differ for men and women, and whether these differences are a function of dating norms and gender mistrust. Further, gender will be examined as a modifier of the measures of normative climate to determine if the effect of normative climate on IPV perpetration is similar for men and women. We will continue to examine the effects of disadvantage to further unravel the conditioning effect contexts of disadvantage. Supplemental tests will consider whether, and at what point, the effect of neighborhood dating norms exerts a significant effect on IPV perpetration across levels of disadvantage. Finally, second-order interactions will examine whether the moderating effect of

neighborhood disadvantage on IPV perpetration is conditioned by gender, and whether these patterns of influence are similar across the age range included in this investigation.

Researchers have increasingly looked beyond the individual to understand factors related to the experience of IPV. Our findings indicate that the neighborhood normative climate has implications for IPV perpetration, and further, that these neighborhood effects depend, in part, on the level of neighborhood disadvantage. Based on these results, future programs may benefit from taking a community-based approach to IPV, targeting norms and attitudes regarding dating and the opposite sex, and building healthy relationships more generally. Such approaches may provide more immediate results, and may prove more feasible than tackling the socioeconomic disadvantage plaguing certain areas.

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Table 1: Means/Percentages and Standard Deviations of all Variables (n = 6158)

	Full Sample (n = 6158)		IPV Perpetration (n = 1124)		No IPV Perpetration (n = 5034)
Variable	Grand Mean	Range			
Dependent Variable					
IPV Perpetration	18.26%		--		--
Individual Attitudes and Beliefs					
Dating Norms	2.25	1-5	2.57	***	2.19
Gender Mistrust	2.90	1-5	3.07	***	2.87
Neighborhood Normative Climate					
Aggregate Dating Norms	2.22	1-5	2.34	***	2.20
Aggregate Gender Mistrust	2.89	1-5	3.07	***	2.85
Neighborhood Disadvantage	9.96	1-46	12.12	***	9.55
Sociodemographic Factors					
Female	51.32%		56.04%	**	47.84%
Age	18.88	13-28	19.33		18.79
Black	24.66%		30.38%	***	20.45%
Hispanic	11.53%		14.15%	*	9.60%
Family Background Factors					
Single parent	22.98%		27.17%	**	19.89%
Step-parent	14.33%		16.23%		12.93%
Other	13.21%		16.04%	*	11.13%
Mother's Educ. < high school	12.65%		15.85%	**	10.29%
Mother's Educ. some college	33.15%		34.15%		32.41%
Mother's Educ. college or >	21.54%		16.04%	***	25.59%

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

Table 2. Multilevel Logistic Regression of Relationship Violence on Neighborhood & Individual Dating Norms (n = 6158)

	Model 1		Model 2		Model 3		Model 4		Model 5	
Variable	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Age			0.593***	0.10	0.572***	0.10	0.571***	0.10	0.571***	0.10
Age^2			-0.015***	0.00	-0.014***	0.00	-0.014***	0.00	-0.014***	0.00
Individual Attitudes and Beliefs										
Dating Norms					0.207***	0.03	0.204***	0.03	0.204***	0.03
Neighborhood Normative Climate										
Aggregate Dating Norms							0.011	0.07	0.023	0.07
Aggregate Dating Norms x Neighborhood Disadvantage									0.023*	0.01
Level 2 residual σ^2	0.806	0.11	0.838	0.12	0.813	0.12	0.814	0.12	0.816	0.12
Level 3 residual σ^2	0.242	0.07	0.276	0.08	0.250	0.07	0.249	0.07	0.242	0.07

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

Table 3. Multilevel Logistic Regression of Relationship Violence on Neighborhood & Individual Gender Mistrust (n = 6158)

	Model 1		Model 2		Model 3		Model 4		Model 5	
Variable	*B*	SE	*B*	SE	*B*	SE	*B*	SE	*B*	SE
Age			0.593***	0.10	0.598***	0.10	0.568***	0.10	0.568***	0.10
Age^2			-0.015***	0.00	-0.015***	0.00	-0.014***	0.00	-0.014***	0.00
Individual Attitudes and Beliefs										
Gender Mistrust					0.166***	0.04	0.159***	0.04	0.159***	0.04
Neighborhood Normative Climate										
Aggregate Gender Mistrust							0.213***	0.06	0.212***	0.06
Aggregate Gender Mistrust x Neighborhood Disadvantage									0.00	0.01
Level 2 residual σ^2	0.806	0.11	0.838	0.12	0.823	0.12	0.813	0.12	0.813	0.12
Level 3 residual σ^2	0.242	0.07	0.276	0.08	0.250	0.07	0.208	0.07	0.208	0.07

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