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EXPLORING THE RELATIONSHIP BETWEEN NEIGHBORHOODS AND INTIMATE PARTNER VIOLENCE

by

Laura A. Voith

A Dissertation Submitted in

Partial Fulfilment of the

Requirements for the Degree of

Doctor of Philosophy

in Social Work

at

The University of Wisconsin-Milwaukee

May 2016

ABSTRACT

EXPLORING THE RELATIONSHIP BETWEEN NEIGHBORHOODS AND INTIMATE PARTNER VIOLENCE

by

Laura A. Voith

The University of Wisconsin-Milwaukee, May 2016
Under the Supervision of Professor James Topitzes

Background: Due to high prevalence rates and deleterious effects on individuals, families, and communities, intimate partner violence (IPV) is a significant public health problem. Because IPV occurs in the context of communities and neighborhoods, research must examine the broader environment in addition to individual-level factors to successfully facilitate behavior change. Stemming in part from the lack of theory, predictors of the relation between neighborhoods and intimate partner violence are under-identified, and a dearth of mediation studies exist that inductively build and deductively confirm theoretical frameworks.

Methods: This dissertation contributes to gaps in the literature via a mixed methods study yielding three manuscripts, i.e., Chapters 2, 3, and 4. First, using a combined theoretical model to guide the analysis, an integrative review of the literature spanning 1995 to 2014 elucidates the field's understanding of predictors and potential mechanisms driving the relation between neighborhoods and IPV. Second, theory-informed neighborhood-level predictors of IPV were tested using hierarchical linear modeling. Third, using grounded theory and focus groups with 32 men in batterer intervention programs, processes by which neighborhoods influence men's use of partner violence were explored.

Results: Results from the first study indicate that macro-, exo-, and meso-level predictors and mediators in the proposed conceptual model have some empirical support; however, concepts at each ecological level have yet to be researched. In the second study concentrated disadvantage (i.e., neighborhood-level factor) and female-to-male partner violence (i.e., individual-level factor) were robust predictors of women's IPV victimization. In the third study, three core categories -titled ACEs and Trauma, Structural Forces, and Systemic Forces - emerged from focused and axial coding, explaining how neighborhoods influenced men's IPV perpetration. Theoretical coding illuminated how these core categories related to each other and their sequence of events.

Implications: Considering the results of each study in context of one another suggests that a well-defined and integrative theoretical framework, that is inductively built and deductively refined, will enhance the field's understanding of ecological effects on IPV via an expanded scope of predictors and potential underlying mechanisms. Furthermore, this work informs a comprehensive ecological approach to IPV aimed at prevention and intervention.

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To

the village it took to get me through,

my oak,

and especially my partner

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ACKNOWLEDGMENTS

Over the last six years, I received inspiration and support from many individuals who provided thoughtful feedback and encouragement in times of uncertainty and celebration – big and small. Dr. James 'Dimitri' Topitzes has been a mentor, colleague, and friend. His spirited, genuine nature, dedication to his students, and high caliber scholarship has taught me much professionally and personally. I would like to thank my dissertation committee of Joan Blakey, Mike Brondino, Carol Cunradi, Laura Otto-Salaj, and Aleksandra Snowden for their support over the last two years as this project came to fruition.

I would also like to thank my partner, Jacob Layden, for his unwavering support of my goals, confidence in my potential, and humor in times of stress. I am grateful for my oak, Erika Blandino, who encouraged me long before I started this journey. Finally, the village – made up of mentors, friends, colleagues, and chosen family – made this experience more than the sum of its parts.

Finally, I appreciate the support of my community partners during and after data collection. I am grateful to the men who participated in study – it was a privilege to hear the stories of their lives and accounts of their complex, honest efforts towards "an evolution of a man." This dissertation was completed with the support of the Advanced Opportunity Program (AOP) Fellowship and the Dr. Tomas Garrett-Rosas Research Award. Research reported in this dissertation (Chapter 3) was supported by the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) of the National Institutes of Health under award numbers R01HD36916, R01HD39135, and R01HD40421, as well as a consortium of private foundations.

CHAPTER 1

Introduction

Statement of the Problem

Intimate partner violence (IPV) is widespread in the United States and exacts a great toll on individuals, families, and society. IPV is the act of physical, sexual, or psychological violence that occurs between current or former intimate partners, including heterosexual and homosexual couples. Both men and women have the propensity for violence in intimate relationships, and some research shows similar perpetration rates across gender (Straus, 2008); however, reports also indicate that women suffer greater damages from injury compared to men (Black et al., 2011). Consequently, this dissertation focuses on male to female partner violence.

Most recent prevalence rates suggest that three in 10 women have experienced some form of partner violence. Moreover, intimate partners perpetrated nearly 40% of female homicide incidents in 2010 (Catalano, 2013). Women living in violent relationships have an increased risk of physical injuries, unhealthy coping behaviors (e.g., drinking, drug use), and diminished mental health (e.g., depression). The effects of intimate partner violence reverberate beyond women, affecting children, families, and society via diminished parenting, incarcerated fathers, and substantial costs to human service administration (e.g., health care, criminal justice). Experts estimate that IPV against women costs the United States economy $8.3 billion in direct costs of medical and health care and indirect costs in lost productivity, according to the most recent report (Max, Rice, Finkelstein, Bardwell, & Leadbetter, 2004). This estimate does not include the costs associated with the criminal justice system; however, the most recent report indicates that family violence constituted 33% of all violent crimes recorded by police in 2000 and more than half of these crimes were between spouses (Durose et al., 2005).

The core values of social work position the field to make valuable contributions to the cessation and prevention of intimate partner violence. Namely, *the importance of human*

relationships (NASW, 2008) is at the crux of issues underlying intimate partner violence and can be used as an important vehicle for change. Additionally, *the dignity and worth of a person* (NASW, 2008) has direct implications for victims and perpetrators of IPV. For example, working with perpetrators of violence to understand, rather than condemn, their actions applies the core principle of *the dignity and worth of a person* and has potential to have ameliorating effects on the use of violence against women. Also, the pursuit of *social justice* (NASW, 2008) with and on behalf of oppressed individuals or groups is a core value guiding social work. Working to end violence against women, particularly women of color who are victimized at higher rates of IPV, using a social justice framework makes way for more meaningful change. Finally, attention to environmental forces that create or contribute to social problems is fundamental to social work (NASW, 2008). As such, the field of social work in an important position to effect changes with IPV.

State of the Research

Intimate partner violence has been researched primarily as an individual-level phenomenon (i.e., using individual-level characteristics as predictors). While these individual-level characteristics (e.g., impulsivity, employment) are important, they only explain a portion of variance in predictive modeling, suggesting that there are other factors to consider. Ecological factors, such as neighborhood characteristics, have been included in the examination, prevention, and intervention of many types of crimes; however, researchers have only recently acknowledged ecological factors in IPV prevalence. A growing body of research has shown a link between neighborhoods and IPV; that is, impoverished neighborhoods tend to have higher rates of IPV (e.g., Wright & Benson, 2011). However, a tenuous theoretical foundation limits the field's understanding of this phenomenon by way of few known neighborhood-level predictors

and unknown mechanisms underlying the relation between neighborhoods and IPV. Once underlying mechanisms driving this relation are illuminated, policymakers and practitioners can more readily reduce or eliminate IPV disparities across neighborhoods.

Additionally, partner violence has been viewed primarily from women-as-victims' perspective, rather than from the men-as-perpetrators' point of view. While research focusing on women is important and has made significant impacts on women's health, policy, and funding, the lack of research into men's use of violence against women drawing from men's perspective hampers progress within the IPV field. Limited research conducted with men-as-perpetrators has potentially contributed to two significant problems. First, behavioral programs designed to reform men's use of violent tactics within intimate relationships, i.e., batterer intervention programs, have reported limited success (Gondolf, 2012), likely due, in part, to the field's insufficient understanding of perpetration from men's perspective. Second, most IPV interventions have been reactive to those who commit and are affected by violent behavior (e.g., law enforcement, victim services); however, applying resources in the form of prevention may have longer-lasting effects and may be more cost effective over time (Foster & Jones, 2006; Kleitz, Borduin, & Schaeffer, 2010). Working with boys and men using a preventative approach (see Miller et al., 2012) promises to yield substantial impacts on violence against women.

Research Questions

Previous literature indicates that the effect of neighborhood characteristics on IPV remains somewhat unclear. Although main effects have been established with certain neighborhood characteristics (e.g., concentrated disadvantage), the relation between some neighborhood characteristics (e.g., social environment) and IPV are not yet transparent. Furthermore, the IPV field would benefit from a stronger theoretical foundation to guide the

study of predictors, and moderating and mediating effects of neighborhood characteristics on IPV. As such, the following research questions were proposed.

1. Is there a relation between neighborhoods and IPV?
    a. What is the theoretical base guiding this area of study?
    b. What neighborhood-level predictors are included in this area of study?
    c. What underlying mechanisms explain the relation between neighborhoods and IPV?
2. If the relation between neighborhoods and IPV exists, is it contextual (i.e., characteristics of an area), compositional (i.e., characteristics of a group of people), or both?
3. What are potential mechanisms by which community and individual factors affect the occurrence of IPV?

The research questions proposed for this dissertation are addressed in three distinct studies and presented in three separate manuscripts, i.e., Chapters, 2, 3, and 4. That is, the first research question and sub-questions are addressed in Chapter 2, titled "*The relation between Neighborhoods and Intimate Partner Violence: An Integrative Review***"**; the second research question is addressed in Chapter 3, titled "*Neighborhood Predictors of Intimate Partner Violence: A Theory-Informed Analysis using Hierarchical Linear Modeling"*; and the third research question is addressed in Chapter 4, titled "*How Neighborhoods Influence Intimate Partner Violence: A Qualitative Inquiry with Men in Batterer Intervention Programs".* The following review of theory, literature, and methods informs all three manuscripts, presented as an integrated whole dissertation.

Theoretical Foundations

Within the IPV field, leading theories focus primarily on dynamics at the individual and dyadic levels. Predominant theories draw from personality development in infancy, i.e., attachment (Ainsworth, 1979; Bowlby, 1969; Bartholomew & Horowitz, 1991), learned behavior in childhood and adolescence, i.e., the intergenerational transmission of violence (Kalmuss, 1984) drawing from social cognitive theory (Bandura, 1986), and power and control stemming in part (Straus, 1976, 2008) or entirely from patriarchy, i.e., feminist theory (Buss & Malamuth, 1996). Components of each theory provide an understanding of individual-, dyadic-, and macro-level influence on IPV. While these theories provide conceptual hypotheses of ecological effects on IPV, the influences are too distal or broad to translate into measurement models, making it difficult to tease apart these important relations. Individual-level theories have an important place in IPV research; however, due to the research questions of this dissertation, community-level theories and frameworks primarily guided this work.

Social Disorganization Theory is the most commonly employed theory by researchers examining the relation between neighborhoods and IPV. Nevertheless, Social Disorganization Theory was based on the study of juvenile delinquency, and when applied to the phenomena of IPV, all of the expected relationships did not hold. As such, an additional theoretical framework was used to bolster the study of neighborhoods and IPV, Determinants of Health (DOH). The DOH framework provides contextual-level hypotheses of underlying mechanisms.

Social Disorganization Theory

In its original form, Social Disorganization Theory (SDT) asserts that impoverished neighborhoods have depleted resources, and are characteristic of residential instability and ethnic heterogeneity. Due to a more diverse and transient residential population, the ability to maintain institutions such as the family, churches, schools, and locally owned businesses proves difficult

(Shaw & McKay, 1942). That is, high turn over and ethnic differences across neighbors makes it difficult for residents to form concrete relationships with each other, and in turn, community attachment is weaker and implementing shared goals is unlikely (Browning, 2002).

Later, Sampson and colleagues (1997) amended the theory to include collective efficacy, an extension of self-efficacy to a body of people. Collective efficacy mediates the relationship between neighborhoods characterized by concentrated disadvantage and behavioral outcomes. That is, the level of collective efficacy, or the ability of "local communities to realize common values of their residents or to solve commonly experienced problems," rather than poverty or other ecological deficits, contributes to interpersonal violence (Almgren, 2005).

Collective efficacy unfolds through two mechanisms: social cohesion and informal social control. In neighborhoods where residents know each other well (i.e., social cohesion) residents are more likely to implement informal social control via supervision and management of social situations, such as the occurrence of interpersonal violence. Informal social control involves the interaction of potential offenders, targets of victimization, and guardians. Guardians are individuals in a community who are disapproving of a certain behavior, such as IPV, and directly and indirectly monitor the targets of victimization and potential offenders, lessening the likelihood for potential victimization (Sampson et al., 1997). For example, direct social control can be exercised by breaking up a fight between intimate partners (i.e., management), while indirect social control can be practiced via visibly monitoring an intense argument between partners (i.e., supervision).

Determinants of Health

An underlying principle of Determinants of Health (DOH) is that relative deprivation (i.e., the context of poverty relative to the country one is living in), rather than absolute

deprivation (i.e., the context of poverty compared to all countries), is a better predictor of health outcomes (Hunter, Neiger, & West, 2011). Wilkinson and Marmot (2003) found that poor people living in both affluent and impoverished nations have worse health outcomes and live shorter lives compared to the affluent. This finding suggests that it is gradients in relative wealth and resources that influence health outcomes for individuals. Mirroring this principle, IPV exists in all racial/ethnic groups and across all levels of social class in the United States; however, the poorest communities show the highest rates of IPV, suggesting that individuals living in areas of concentrated disadvantage are at greatest risk of intimate violence.

The DOH framework asserts that the socioeconomic and political context (e.g., governance, policy, cultural and societal norms and values) affect individuals' social environment, physical environment, and health services (WHO, 2010). The social environment can include the individuals' experience of discrimination, income, education level, and marital status (CDC, 2010). The physical environment accounts for place of residence, crowding environments, and the 'built environment' such as buildings, physical spaces (e.g., vacant lots, green spaces), transportation systems, and products that are created or altered by people. Health services can include access to healthcare, quality of healthcare, and insurance status. These three constructs are theorized to influence an individual's level of social and economic capital. Specifically, social and physical environments contribute to an individual's social and economic capital, and health services contribute to economic capital. In turn, one's level of social and economic capital effect health or behavioral health outcomes, such as IPV.

Although IPV researchers focusing on communities of color, namely African American communities, have identified structural arrangements (e.g., poverty) and social conditions (e.g., class) that influence one's opportunities and overall quality of life as factors contributing to the

disproportionate rates of IPV in these communities (Hampton et al., 2003), few IPV researchers have identified the DOH framework in their research. Modeling IPV using health disparities reflects the underlying tenet of DOH -- that the cause of health disparities, such as IPV, are rooted in social, political, and economic factors (Black et al., 1982; Marmot & Bell, 2012; Marmot, Rose, Shipley, & Hamilton, 1978; Whitehead, 1990).

Overview of the Literature

Nearly two decades ago, Miles-Doan (1998) found that rates of severe physical partner violence were substantially higher in areas of concentrated disadvantage (concentration of households below the poverty line, unemployed males, and female head of households with young children) compared to more affluent areas. However, early research was limited to less sophisticated statistical analysis and, thus, it was unclear if the results represented "true" neighborhood effects or merely aggregated individual effects (Miles-Doan, 1998). In other words, are higher rates of IPV in impoverished neighborhoods due to environmental influences (i.e., neighborhood-effects or contextual effects) or do violent men tend to live in the same area (i.e., individual-effects or compositional effects)?

Compositional and Contextual Effects

Much of the basis for inquiry stemmed from the disproportionately high rates of IPV, evident both then and now, in communities of color. For example, results from the most recent national survey showed that multi-racial women report the highest rates of IPV followed by American Indian/Alaskan Native, African American, Hispanic, White, and Asian or Pacific Islander women respectively (Black et al., 2011). High rates of violence against women of color paired with the knowledge that partner violence is primarily intra-racial (BJS, 2005) propelled researchers to question if men of color were more prone to IPV. Because people of color tend to

make up more impoverished neighborhoods in cities due to the racial history of the United States (Wilson, 1978), researchers and policymakers questioned if the seeming relation between neighborhoods and IPV was really a result of race (i.e., individual or compositional effects). Responding to this call, one study revealed that neighborhood context, not race, accounted for a substantial amount of variation in differing rates of IPV (Benson, Woolridge, Thisthlewaite, & Fox, 2004). Specifically, researchers reported that IPV was highest in disadvantaged communities and lowest in the least disadvantaged communities regardless of racial/ethnic identity (Benson et al., 2004).

Notably, individuals living in the same area can have similar characteristics to, and be influenced by, each other. If a researcher were to sample residents in the same neighborhood, individual reports would not be completely independent of each other due to the inherent influence among residents. If this assumption of independence is violated when carrying out certain statistical tests (e.g., ordinary least squares regression), parameter estimates can be inflated and may lead to spurious results (Snijders & Bosker, 2012). Plagued by this limitation, researchers examining the relation between neighborhoods and IPV applied more advanced statistical methods, such as multilevel modeling, to account for the lack of independence among residents living in the same neighborhood. An early study applying more advanced methods (i.e., generalized estimating equations) found that neighborhood characteristics (i.e., per capita income, per capita crime rate, unemployment rate, ratio of homeowners to renters) significantly increased women's risk of interpersonal violence (O'Campo et al., 1995). Specifically, the study found that African American women living in the lowest quartile of per capita income in Baltimore, were four times more likely to self-report IPV than women living in the highest quartile of per capita income.

As more advanced statistical methods emerged, evidence of neighborhood effects continued to surface, indicating that the relation is not spurious; rather, neighborhood-level effects influence IPV over and above individual-level effects (Browning, 2002; Wright & Benson, 2011). However, a tenuous theoretical foundation guides the ecological study of IPV (VanderEnde, Yount, Dynes, & Sibley, 2010). To wit, studies examining the relation between neighborhoods and IPV are atheoretical (e.g., VanderEnde et al., 2010) or guided by a single theory, social disorganization theory (Pinchevsky & Wright, 2012). Social disorganization theory has certainly been useful in understanding crime in the context of neighborhoods and to some extent IPV; yet, research has shown that the theorized relations do not necessarily function as expected with intimate partner violence due to IPV's 'invisible nature' (e.g. Browning, 2002). The underdeveloped theoretical foundation guiding the field has, in part, contributed to the limited the number of predictors under study and the paucity of meditation studies.

Neighborhood Level Factors and IPV

Concentrated disadvantage is the most widely modeled and robust predictor examined in the relation between neighborhoods and IPV (e.g., Benson, Fox, DeMaris, & Van Wyk, 2000; Caetano, Ramsetty-Mikler, & Harris, 2010; Herrenkohl et al., 2007; Jain et al., 2010). Conceptualized by Sampson and colleagues (1997), concentrated disadvantage is considered an area characterized by high levels of poverty, receipt of public assistance, female headed households, unemployment, children, and African American residents. Most studies report some degree of significant, positive association, between concentrated disadvantage and IPV, with few studies reporting a non-significant relationship (Browning, 2002; Jain et al., 2010).

Researchers have also included aspects of the social and physical environment in their analyses. The social environment, or the level of social organization, is often characterized by

the level of crime, such as drug dealing, public intoxication, prostitution (e.g., Van Wyk, Benson, Fox, & DeMaris, 2003). Researchers characterize physical environment by the presence of graffiti, abandoned buildings, or garbage in a neighborhood (e.g., Frye et al., 2008). Some researchers have examined the built environment, i.e., physical structures in a neighborhood, namely, alcohol outlets (e.g., bars, liquor stores). Findings from these studies indicate that neighborhoods with more liquor stores and corner stores have an additive risk of intimate partner violence for individuals residing in those areas (e.g., Cunradi et al., 2011; Snowden, 2015). Across studies, results indicate that men are vulnerable to these environmental influences (e.g., Cunradi, 2007; 2009; HerrenKohl et al., 2007), particularly the social environment (e.g., Reed et al., 2009), increasing the likelihood of IPV perpetration. However, the ability to delineate these effects within neighborhoods proves difficult due to measurement variation across studies. That is, measurement of these factors varies across studies and is often constructed differently, e.g., risk indexes, single items.

While few mediation studies have been published, studies examining the mediating role of collective efficacy (i.e., combination of social cohesion and informal social control among neighbors) on the relation between disadvantaged neighborhoods and IPV show promise. For example, both Browning (2002) and Jain (2010) found disadvantaged communities high in collective efficacy had lower rates of IPV compared to disadvantaged neighborhoods low in collective efficacy. Although encouraging, few studies exist examining the mediating effect of collective efficacy and other potential mediators on the relation between neighborhoods and IPV.

Methods

Overarching Approach

To address the three research questions, a mixed methods study was conceptualized. Elements of the Explanatory and Exploratory Design Models (Creswell & Clark, 2007) guided the methodological approach of the study. The study employed first an Exploratory Design (i.e., qualitative to quantitative) followed by an Explanatory Design (quantitative to qualitative) (see Figure 1). In the first phase, qualitative methods guided the examination of the extant literature and corresponding theories and theoretical frameworks related to neighborhoods and IPV, resulting in an integrative review and an integrated conceptual model (Chapter 2). The integrative review and integrated conceptual model guided the second phase of the study, a quantitative analysis. Empirically and theoretically validated neighborhood- and individual-level factors were examined as predictors of IPV with a national sample using Hierarchical Linear Modeling (Chapter 3) (Raudenbush & Bryk, 2002). In the third phase of the study, follow-up explanations of results from the quantitative analyses were sought using qualitative methods. Specifically, focus groups were facilitated with men in batterer intervention programs to explain how neighborhood-level factors influenced their use of IPV. Using Grounded Theory (Glaser & Strauss, 2009) to guide the data collection and analysis, a preliminary theory emerged explaining the relation between neighborhoods and men's use of IPV (Chapter 4).

Chapter 2: The relation between Neighborhoods and Intimate Partner Violence: An Integrative Review

Despite the fact that ecological examinations of many types of crimes have been occurring for years, most of the extant IPV literature focuses on individual-level factors (Capaldi, Knoble, Shortt, & Kim, 2012). This trend is based on the misconception that because IPV can occur within the privacy of one's own home, it is impermeable to the surrounding environment, such as neighborhoods. Thus, researchers and practitioners have not included

neighborhood characteristics in the understanding, prevention, and intervention of IPV until recently. In the last two decades, researchers began to include ecological or neighborhood-level factors in the study of IPV and the results have been mixed due, in part, to a lack of ecological theory guiding the field. As such, the following research question was posed: *Is there a relation between neighborhoods and IPV?*

In order to answer the research question proposed, an integrative review method of the literature was conducted. An integrative review is a method that draws themes from the extant empirical and theoretical literature to provide a comprehensive understanding of a particular phenomenon, such as IPV (Whittmore & Knafl, 2005). Using integrative review methods, diverse bodies of methodologies can be synthesized unlike other types of review methods, such as meta-analyses (Whittmore & Knafl, 2005). Following integrative review methods, there are five stages: problem identification, literature search, data evaluation, data analysis, and data presentation.

Stage 1: Problem Identification. In the first stage, the factors of interest were identified. That is, variables of interest including concepts (e.g., neighborhoods, poverty, social disorder), target populations (e.g., adults), and phenomena (e.g., IPV), and the sampling frame (e.g., qualitative and quantitative studies, theoretical literature) were clearly established. These clear boundaries provided direction with a diverse body of literature.

Stage 2: Literature Search. The literature search was conducted using computer databases and other non-electronic methods, e.g., journal hand searching. Specific areas of focus were facilitated by the research sub-questions, including theoretical literature of ecological theories linking environments and behavioral health outcomes, studies including neighborhood-level predictors of IPV, and studies examining mediators or moderators of the relation between

neighborhoods and IPV. By concentrating the review, potentially pertinent resources identified were reduced from 1,598 to 114 articles. Finally, after applying predetermined inclusion and exclusion criteria, a total of 25 empirical articles and 17 theoretical articles were included in the subsequent stages.

Stage 3: Data Evaluation. The reports (i.e., articles) were coded using two criteria: (1) methodological or theoretical rigor and (2) data relevance on a 2-point scale (i.e., high, low). Because the final sample consisted of empirical and theoretical research, this scoring system assisted with comparison across reports. No report was excluded based on this data evaluation, although the score was included in the data analysis stage to inform the level of significance the report contributed in the analytic process.

Stage 4: Data analysis. To facilitate data analysis, the data needed to be divided into logical subgroups. Thus, the data was divided into three categories: theory, methods, and empirical evaluation. Within each category, articles were organized within subtopics, such as particular theories (i.e., Social Disorganization Theory and Determinants of Health) and specific methods (i.e., qualitative or quantitative). Predetermined and relevant data were selected and copied to a one-page summary sheet for each source. Next, these summary sheets were coded using qualitative software. A codebook was created to guide the coding process. After coding was completed, data was displayed visually to enhance patterns (e.g., matrices, code clouds, frequency graphs). As a higher level of abstraction was induced, primary sources were reviewed to ensure congruency between the primary sources and the higher level of abstraction.

Stage 5: Data Presentation. The results are presented in manuscript, diagrammatic, and graphical form. The diagram provides a visual explanation of the theoretical conceptual model. Integrating both theories, the conceptual model resulted in macro-, exo-, meso-, and micro-level

concepts related to IPV. The graph and manuscript links support from primary sources to the overall conclusions. Support in previous IPV literature was found for macro-level elements, i.e., IPV intervention norms among neighborhood residents, exo-level elements, i.e., characteristics of the social environment and physical environment, and meso-level elements, i.e., aspects of economic capital and collective efficacy.

Chapter 3: Neighborhood Predictors of Intimate Partner Violence: A Theory-Informed Analysis using Hierarchical Linear Modeling

Following the mixed methods design, the results from the integrative review identified theoretically- and empirically-informed factors to examine. In the Fragile Families and Child Wellbeing Study (Reichman, Teitler, Garfinkel, & McLanahan, 2001), a cohort of nearly 5,000 families at risk of breaking up and living in poverty, i.e., fragile families, were surveyed. Using a stratified random sample, 16 U.S. cities with populations of 200,000 or more were selected; hospitals were randomly sampled within cities; and, births were randomly sampled within hospitals. The core study spans all six waves of data (1998 to 2016), however, 14 additional studies, i.e., collaborative studies, were appended to the core study at different waves. The collaborative study containing survey questions of interest for this dissertation, i.e., the Economic Status, Public Policy, and Child Neglect study, was conducted during the fourth wave of data collection. Thus, a cross-sectional secondary data analysis was conducted.

As mentioned earlier, the over-arching research question guiding the second phase of the study was the following, *If the relation between neighborhoods and IPV exists, is it contextual (i.e., characteristics of an area), compositional (i.e., characteristics of a group of people), or both?* In order to differentiate between contextual effects (i.e., neighborhood-level characteristics) and compositional effects (i.e., individual-level characteristics), hierarchical

linear modeling (HLM) was employed. Because people drawn from "clusters," such as neighborhoods, are more likely to be similar to each other, their report on outcomes will likely be correlated due to being drawn from the same cluster (e.g., neighborhood). Statistical tests, such as ordinary least square regression, assume observations are independent of each other. When data are nested, correlation is introduced among the nested observations that, if not adjusted for, can have significant effects on the estimates of standard errors. Typically, this results in standard errors that are too small, leading to spurious "significant" results (Snijders & Bosker, 2012). HLM, another form of regression, accounts for the non-independent nature of the observations and, thus, provides more accurate standard errors (Raudenbush & Byrk, 2002).

Drawing from the results of the first phase of the study, the integrative review yielded theoretically and empirically validated neighborhood-level factors for examination. First, the level of male to female partner violence was examined to see if it varied across census tracts, a proxy for neighborhoods, using HLM. Once variation in IPV levels across neighborhoods was confirmed, the following research question was addressed: *Do neighborhood-level factors stemming from the Determinants of Health framework, i.e., social environment and social capital, and Social Disorganization Theory, i.e., social disorganization and collective efficacy, have an effect on the occurrence of male-to-female IPV, when controlling for important individual-level risk-factors for men, i.e. alcohol and drug use, level of education, employment, age, female-to-male IPV, and impulsivity?* Results indicated that concentrated disadvantage, an element of social disorganization, contributed towards an increased risk of male to female partner violence. However, other elements of social disorganization did not operate as theorized, namely residential instability. Although most individual-risk factors were not significant in this sample, female to male partner violence emerged as risk factor among those factors modeled.

Chapter 4: How Neighborhoods Influence Intimate Partner Violence: A Qualitative Inquiry with Men in Batterer Intervention Programs

Although the body of IPV literature examining neighborhood effects is growing, few studies have examined the underlying processes driving this relation. The dearth of mediation studies is likely due, in part, to a lack of theoretical guidance. As such, the third phase of the study addressed the following research question, *What are potential mechanisms by which community and individual factors affect the occurrence of IPV?*

Using results from the second phase of this study (Chapter 3), focus group questions were developed to explain the outcomes in the third phase of the study (Chapter 4). That is, significant factors, either statistically or theoretically, were incorporated into focus group questions that prompted men to explain the relevance and process by which these factors affected their lives. The process of qualitative inquiry using grounded theory advanced a preliminary theory of underlying mechanisms driving the relation between neighborhoods and men's use of IPV.

Collecting primary data from two local batterer intervention programs (BIP), 32 men participated in one of five focus groups. Modeling grounded theory, theoretical sampling was conducted from October 2015 to January 2016. Theoretical sampling involves constant comparison across each round of data collection (i.e., focus groups). This constant comparison guides subsequent data collection in order to achieve saturation, i.e., a point in which no new information on the topic will be achieved with further data collection (Glaser & Strauss, 2009). In other words, subsequent data collection allows the researcher to assess the meaningfulness and refinement of emerging themes. Data collection and analysis occurred simultaneously. First, open (i.e., brief descriptions that are provisional, comparative, and concrete) and in-vivo (i.e., terms used by participants) coding was completed incident by incident, separately with two

coders. The next major phase of coding was focused coding, in which the most significant and/or frequent codes established during open coding guided the development of categories (Charmaz, 2006). This phase of coding resulted in an initial codebook that continued to be refined as data collection and coding continued. The third phase of coding included axial coding, which specifies the properties and dimensions of a category (Charmaz, 2006). The final phase of coding, theoretical coding (i.e., conceptualizing how the substantive codes relate to each other) (Charmaz, 2006) enabled the development of the preliminary theory explaining underlying mechanisms driving the relation between neighborhoods and male to female IPV from men's lived experiences.

Presented in Chapter 4, three core categories representing processes by which neighborhoods affect men's use of IPV emerged from men's lived experience. These included ACEs (Adverse Childhood Events) and Trauma, i.e., deeply distressing experiences that overwhelm one's sense of safety and control, Structural Forces, i.e., positive and negative elements that affect the social processes within neighborhoods, and Systemic Forces, i.e., macro-level influences on the physical and social makeup of neighborhoods. Theoretical coding resulted in a preliminary theory articulating how these core categories relate to each other and their sequence or procedure of events.

Conclusion

Chapter 5: Conclusion

This mixed methods study results in a theoretically informed analysis of the relation between neighborhoods and IPV, and a preliminary theory disentangling underlying mechanisms driving the relation between neighborhoods and male to female partner violence. Presented as a coherent body of work, the major findings and corresponding implications of the three studies

(Chapters 2, 3, and 4) are discussed in Chapter 5, including ways in which the study results overlap and reinforce one another. Finally, overall limitations and future directions for research based on this dissertation will be identified.

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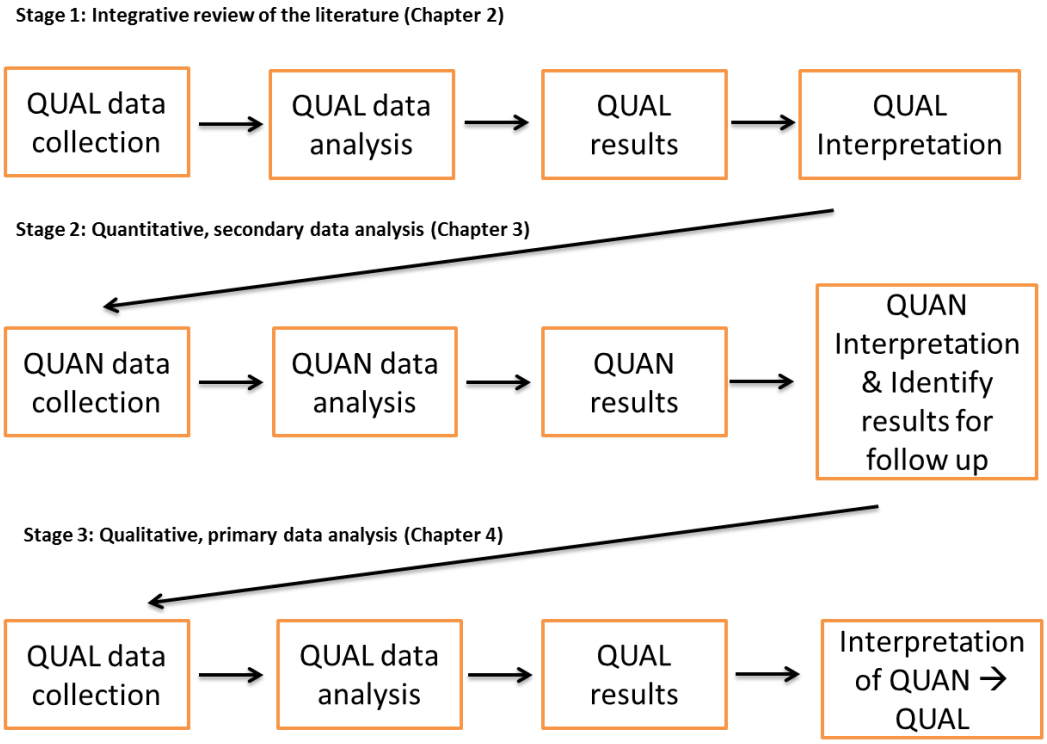
Figure 1. Exploratory and Explanatory Design Model



Creswell & Clark, 2007

CHAPTER 2

The relation between Neighborhoods and Intimate Partner Violence:

An Integrative Review

Introduction

Intimate partner violence (IPV or 'partner violence') includes physical (i.e., hurting or trying to hurt another person by physical force), sexual (i.e., forcing a partner to participate in a sex act without her/his consent) and/or psychological (i.e., threatening a partner, his or her possessions or loved ones, or harming a partner's sense of self-worth) violence that occurs between two current or former intimate partners (CDC, 2014). These types of IPV can occur separately or in combination, and may involve a sole incident or may occur repeatedly, over time. Additionally, partner violence can emerge between same- and opposite- sex couples (Hill, Woodson, Ferguson, & Parks, 2012), and with males and females as the perpetrators and/or victims (i.e., male to female partner violence (MFPV); female to male partner violence (FMPV) (Straus, 2008). A number of studies have revealed that both partners have the propensity for violent behavior (Foshee, Bauman, & Linder, 1999), known as gender symmetry (Straus, 2008). In fact, some studies have shown that women perpetrate violence as often as or more often than men (Caetano, Schafer, & Cunradi, 2001). Notably, while the rates of perpetration between partners are similar, some researchers have argued that the impacts of women's exposure to IPV are more profound compared to men; for example, one in seven women report injury due to IPV compared to one in 25 men (Black et al., 2011). Due to the more severe outcomes of MFPV compared to FMPV and to narrow the scope of study, this paper focuses primarily on male to female partner violence in heterosexual couples.

Partner violence is a significant public health problem. The most recent prevalence rates suggest that nearly three in 10 women have experienced rape, physical violence, and/or stalking by their partners in the United States (CDC, 2014). Other than death, victims of IPV are at increased risk of physical injuries, depression, suicide attempts and completions, and unhealthy

coping behaviors such as drinking, drug use, and risky sex (CDC, 2014). These deleterious outcomes affect victims, their families, and society. Additionally, men who perpetrate violence contribute to familial, societal, and economic losses; however, it is not clear in the literature that there have been any attempts to monetize these costs as they relate to IPV.

While partner violence transcends all lines of class and racial/ethnic identity, evidence suggests that women of color are disproportionately affected by IPV (Black et al., 2011). For example, one study found that Black women were twice as likely to be victims of IPV homicide by a spouse and four times as likely to be murdered by a boyfriend or girlfriend compared to White women (Catalano, Smith, Snyder, & Rand, 2009). Moreover, IPV is primarily intra-racial (BJS, 2012), suggesting that men of color are disproportionately perpetrators of IPV. However, it disparities of IPV rates among racial/ethnic groups must be considered in context.

Because people of color have historically been marginalized in the United States, many racial/ethnic minorities live in areas (neighborhoods or communities) of extreme relative disadvantage compared to their White counterparts (Osypuk & Acevedo-Garcia, 2010; Sampson & Wilson, 1995; Wilson, 1987). Researchers assert that the marginalization of members of certain populations contributes to increased rates of IPV in communities (Bent-Goodley, 2007). That is, marginalized members of the population often reside in areas characterized by concentrated and structural disadvantage, and, in turn, these areas have been linked to high rates of IPV (Browning, 2002; Cunradi, 2009; Wright & Benson, 2011).

Much of the IPV literature has focused on individual and dyadic dynamics and characteristics, as opposed to other behaviors that have been approached from an ecological perspective, among others. Because of the unique and private nature of families, "potential neighborhood and contextual effects have been largely ignored, [due to the assumption] that

these effects do not penetrate into family settings" (Benson, Wooldredge, Thislethwaite, & Fox, 2004). Without diminishing the importance of previous work on individual and dyadic dynamics of IPV, a fundamental gap exists in this field of research and potentially limits the implications for service and policy, namely the study of the relation between neighborhood and IPV.

Current Study

Researchers examining ecological effects on IPV are hampered by a tenuous theoretical framework, ultimately limiting the range of predictors under study and undermining the field's conception of mechanisms driving the relation between neighborhoods and higher rates of IPV. Answering the call for model and theory development for neighborhood effects on health risks, protective factors, and outcomes (Diex Roux & Mair, 2010; O'Campo, 2003), this integrative review will provide a conceptual model from which researchers, policymakers, and practitioners can begin to address the disparities of IPV across neighborhoods in the United States.

While ecological research on IPV is relatively scarce, some researchers have examined environmental risk and protective factors related to IPV, over and above individual- and dyadic-level factors (e.g. Fox & Benson, 2006; Frye et al., 2012). Nevertheless, these studies have either been atheoretical or informed by a single theory, social disorganization theory (SDT). While SDT has served useful, it provides too narrow of a scope to serve as the sole theoretical foundation guiding the study of community context and IPV due to the limited number of ecological levels included. Subsequently, predictors of this relationship are under-identified and few studies (i.e., Browning, 2002; Wright & Benson, 2010) have examined the mechanisms through which community context affects IPV. Studies examining predictors and mechanisms explaining the relation between neighborhoods and IPV are fundamental for the design and

implementation of successful neighborhood-level interventions and ultimately to reduce IPV, particularly within disadvantaged neighborhoods.

This paper will provide an integrative review of the literature that will enhance the field's current understanding of predictors and potential mechanisms driving the relation between neighborhoods and IPV in the United States, using a theoretical model drawing from Social Disorganization Theory and Determinants of Health framework to guide the analysis. Both theories have overlapping components; augmenting the integration of these theories with theoretical and empirical work will provide a more robust conceptual model linking macro-, exo, meso-, and micro-level factors that affect health outcomes, namely IPV.

Theoretical Orientation

Social Disorganization Theory. Social Disorganization Theory emerged from research on juvenile delinquency in Chicago neighborhoods (Shaw & McKay, 1942). The intersection of structural factors, rather than psychological, is the foundation of SDT. It has informed the examination of various outcomes, including IPV. SDT suggests that resources are depleted in impoverished neighborhoods, increasing residential instability and ethnic heterogeneity, and ultimately decreasing the neighborhoods' abilities to maintain institutions such as families, churches, schools, and locally owned businesses (Sampson, Raudenbush, & Earls, 1997; Shaw & McKay, 1942). Presence of residential instability and ethnic heterogeneity weakens the ability to form concrete relationships among neighbors, dampens community attachment, and reduces the likelihood of implementing shared goals such as decreasing violence between intimate partners (Browning, 2002). Organizational participation in a neighborhood requires "anchors" (i.e., a core group of participants) who act to maintain organization and work towards a common goal. In neighborhoods of high residential instability and immigrant concentration, organizational

participation and dense social networks are unlikely due to high turnover rate and ethnic heterogeneity, creating greater risk for IPV victimization.

Sampson and colleagues (1997) amended the theory to include collective efficacy, an extension of self-efficacy to a body of people. Collective efficacy represents the potential of social networks within neighborhoods to protect against the effects of neighborhood disorder. Theorists characterize collective efficacy as a mediator of the relation between low socioeconomic status neighborhoods and organization or disorganization. In other words, it is the level of collective efficacy, or the ability of a community to discern common values among residents and to solve collective problems, rather than poverty or other ecological deficits, that contributes to interpersonal violence (Cantillon, Davidson, & Schweitzer, 2003).

SDT provides explanation of relations between exo-, meso- and micro-level factors. This theory's strengths include logical adequacy and reasonable testability (Sampson et al., 1997; Shaw & McKay, 1942). Nonetheless, the foundation of SDT places responsibility of change solely on individuals living in the neighborhood, rather than including macro-level factors, consequently limiting environmental interventions.

Determinants of Health. The Determinants of Health (DoH) framework assert that the causes of health disparities are rooted in social, political, and economic factors (Marmot & Bell, 2012; Marmot, Rose, Shipley, & Hamilton, 1978). While DoH has rarely been applied in IPV research (see Vives-Cases et al., 2012 for exception), reports indicate that the poorest communities show the highest rates of IPV in the United States (Benson, et al.2004), suggesting that individuals living in areas of concentrated disadvantage are at greatest risk of partner violence. IPV researchers focusing on communities of color (e.g., Hampton, Oliver, & Magarian, 2003) have identified macro-level structural arrangements and social conditions that influence

one's opportunities and overall quality of life as factors contributing to the disproportionate rates of IPV in impoverished communities. Similarly, the DoH framework (Wilkinson & Marmot, 2003) focuses on how socioeconomic and political context, specifically governance, policy, and cultural and societal norms and values, affect the social environment, physical environment, and health services (WHO, 2010).

Social environments or contexts create social stratification and assign individuals to social positions. In turn, one's assignment to a particular social position facilitates differential exposure and vulnerability to health-damaging conditions, such as interpersonal violence (Diderichsen, Evans, & Whitehead, 2001). Examples of social environment or contexts include crime, social disorder, discrimination, and the availability of resources to meet basic needs (CDC, 2010).

The *physical environment* accounts for place of residence, crowding environments, and the 'built environment' such as buildings, physical spaces (e.g., vacant lots, green spaces), transportation systems, and products that are created or altered by people. The effect of physical environment on public health has been well documented (see Shaw, 2004), although it has yet to be fully explored as it relates to IPV. Of those researchers who have examined the effect of physical environment on IPV, most have combined it with social disorder (e.g., Cunradi, 2007, 2009; HerenKohl, Kosterman, Mason, & Hawkins, 2007), limiting our ability to delineate effects of physical environment alone.

Health services can include access to healthcare, quality of healthcare, and insurance status. Although some researchers have identified health services as an important point of intervention for victims of IPV (e.g., O'Campo et al., 2011), this inlet does not address IPV

"upstream" and, thus, is less likely to affect change in health disparities. Rather, research points to prevention strategies as the most cost-effective use of resources (Docteur & Berenson, 2014).

These three community-level constructs (i.e., social environment, physical environment, and health services) are theorized to influence an individual's level of social and economic capital, which in turn affects individual health outcomes, such as the rate of IPV. The DoH framework identifies other mediators and asserts that it is ecological deficits that are the root of interpersonal violence. Linking macro- and exo-level effects, such as social and political policy, to micro-level effects, such as health disparities across communities, DoH provides theoretical insight into the relationship between the community and the individual. Still, the complex scope of DoH makes applicability more difficult.

Combined Model. The Ecological Systems Theory (EST) provides an overarching framework that will help integrate these two theories by defining different levels of systemic forces and describing how the systems interact with each other. The levels identified in EST (i.e., macro, exo, meso, and micro) (Bronfenbrenner, 1981) are used to explain the contributions of each theory to the combined model proposed here. To demonstrate, where other approaches concentrate on providing explanations at the micro-level (individual/couple, i.e., adverse childhood experiences, alcohol and drug abuse, mental health issues, attitudes towards sex roles, impulsivity, age), SDT provides a parsimonious, testable model of exo- (operations on micro-level environments, i.e., social network density, participation in community based organizations) and meso-level (interactions of multiple micro- environments, i.e., social capital, economic capital, collective efficacy) factors relating to individual-level behavior. DoH identifies macro- (societal, i.e., socioeconomic and political context, IPV community tolerance) and exo-level (i.e., social environment, physical environment, and material resources) factors that influence

individual-level behavior and delivers a holistic framework aimed at prevention. Integrating these two theories, using the macro- and exo-level factors from DoH to inform the exo- and meso-level factors from SDT, may generate a more fruitful model to employ relationship testing between community-level factors and rates of IPV (see Figure 2).

The macro-level factors (i.e., socioeconomic and political context, and IPV intervention norms) and exo-level factors (social environment, physical environment, and material resources) drawn from DoH, affect the exo-level factors (social network density and participation in community-based organizations) and meso-level factors (e.g., social and economic capital, collective efficacy), derived from SDT. Together, these factors influence individual-level health inequities (i.e., IPV).

For example, macro-level factors, such as unequal educational funding, prejudicial hiring practices, and predatory mortgage lending, affect exo-level factors, by way of increasing the chances of prostitution, drug dealing, vacant lots, and crowding in residences within a neighborhood. Additionally, exo-level factors can influence meso-level factors. For example, if material resources in the neighborhood (i.e., exo), such as community centers, diminish and the social network density and participation in community-based organizations by neighborhood residents decline (i.e., exo-level), this may ultimately lower the level of civic engagement among neighbors and concentrate disadvantage within a neighborhood (i.e., meso-level). Subsequently, these meso-level factors influence micro-level factors; that is, trust among community members and their collective ability to manage criminal or undesirable activity will diminish, reducing their level of collective efficacy (i.e., meso-level), and ultimately leading to higher rates of IPV (i.e., micro-level). What's more, macro-level factors, such as IPV intervention norms in a

community, can moderate and possibly mediate the relationship between meso-level factors (i.e., collective efficacy) and micro-level factors (i.e., rates of IPV).

Method

The integrative review was conducted using four stages: Problem Identification, Literature Search, Data Evaluation, and Data Analysis (Whitmore & Knafl, 2005). This approach provided a systematic technique to integrate a variety of documents, including theoretical, empirical, qualitative, and quantitative sources.

Stage 1: Problem identification. Although the relationship between neighborhoods and IPV could be identified in the literature, several problems remain. First, the study of neighborhood context and IPV lacks a theoretical base. Second, stemming in part from the lack of theory, predictors of this relationship are under-identified. Lastly, there is a dearth of mediation studies that inductively build and deductively confirm theoretical frameworks. Thus, these three problem areas focused the field of study.

Stage 2: Literature Search. Search terms (see Table 2.1), focusing specifically on neighborhoods, IPV, and the proposed theories (i.e., DoH and SDT), facilitated the Literature Search Stage. Inclusion and exclusion criteria were applied to narrow the articles to those most relevant to the study. Specifically, the inclusion criteria comprised of studies emphasizing the relation between IPV and neighborhoods, conducted in the United States, with adult samples. Exclusion criteria consisted of studies including children, non-U.S. based studies, and unpublished manuscripts (abstracts and dissertations). Studies with adolescent samples were included if combined with adult samples (e.g., youth ages 15-20). Using this approach, 1,598 articles were narrowed to 25 empirical and 17 theoretical articles.

Stage 3: Data Evaluation. The final sample of sources for the integrative review included quantitative and qualitative empirical (see Table 2.2 and 2.3) and theoretical reports. Due to the variety of reports in the sample, the reports were coded using two criteria: methodological or theoretical rigor, and data relevance on a 2-point scale (high/low). Methodological rigor was assessed using nine criteria (e.g., Was the sampling method and size adequate? Did the methodology employed align with the research questions proposed?) (Shadish, Cook, & Campbell, 2002). Theoretical rigor was assessed using seven criteria (e.g., Are the concepts in the model primitive, concrete, or abstract? How simply/briefly is the theory able to be explained without sacrificing content, structure, and completeness?) (Rodgers & Knalf, 2000; Walker & Avant, 1995). Data relevance was assessed using the following question "Is this source relevant to predictors and/or mechanisms regarding neighborhood effects on IPV?" No report was excluded based on this data evaluation; rather the score was included in the data analysis stage as an indicator of the report's significance during the analytic process. Dedoose software facilitated this process.

Stage 4: Data analysis. First, data were extracted on sample characteristics and method (if empirical), and any reference to concepts regarding neighborhood or IPV, resulting in one-page summary sheets for each article. A priori categories were identified based on the research questions; these categories included high/low ranking, community-level predictors, gaps in methodology, mechanisms of change, and nature of variable relationship: causal, correlational, null. During analysis, any other categories that arose from the data were recorded. Second, the data were organized visually in several forms (e.g., graphs, tables, concept diagrams) to elucidate patterns and relationships across primary sources. Third, data matrices were generated to display all coded data from each report by category, and were iteratively compared. As a higher level of

abstraction was induced, each primary source was reviewed to ensure the higher levels of abstraction remained congruent with primary sources. The results are organized by data emergence (i.e., greater frequency of a category appearing in the data), the co-occurrence of codes (i.e., factors that often appeared together, creating categories), and the significance of the findings (i.e., weighting of methodological or theoretical rigor, and relevance of the data to the research questions). As such, some results are not reported here (e.g., residential instability, a SDT concept), instead only those results most germane to the relationship between neighborhoods and IPV were reported.

Results

Using the combined theoretical model as a framework for the results, these findings describe elements of the model established in the literature. Nevertheless, empirical reports on all elements of the model as it relates to IPV were not identified in the literature. Specifically, IPV intervention norms, a macro concept, emerged in the literature, while little was found on socioeconomic and political context. The exo-level concepts of the model found in the literature include social environment and physical environment, while research reports on social network density, participation in community-based organizations, and material resources were absent. Finally, the meso-level concepts in the model, economic capital and collective efficacy, materialized; however, no research was found on social capital. The absence of research on certain elements of the model may be indicative of null findings (Cunradi, Todd, Mair, & Remer, 2013), which are often not published, or it may point to a need for additional research on these model elements. This uncertainty suggests interpreting these results with caution.

Macro-Level Factors

The macro-level factors in this model (see Figure 2) include socioeconomic and political context, and IPV intervention norms. Currently, no research exists examining the socioeconomic and political context as it relates to the relationship between neighborhoods and rates of IPV. However, a growing body of evidence has emerged identifying IPV intervention norms as an important macro-level factor to consider.

IPV Intervention Norms. IPV intervention norms are conceptualized as community support for a member's willingness to intervene upon witnessing IPV. Some researchers (e.g., Browning, 2002) suggest that community intervention norms for IPV operate differently than other areas of community intervention (e.g., juvenile delinquency) due to the unique nature of a family. Theorists assert that some individuals believe fights or "issues" between family members are private, thus excusing the act of intervention (Straus, Gelles, & Steinmetz, 1980); consequently several researchers have included this construct in their models (see Table 2.2).

Browning (2002) found that increased levels of non-intervention norms (i.e., unwillingness to intervene) in a community decreased, or mediated, the magnitude of effect of collective efficacy on lower IPV rates. In other words, the protective effect of collective efficacy is reduced by a community's unwillingness to intervene. One study measuring 'legal cynicism,' anomie with respect to law, (e.g., "Fighting between friends or within families is no one else's business") found that individuals living in communities high in legal cynicism were less likely to report IPV desistance (Emery, Jolley, & Wu, 2011). In other words, men who perpetrated IPV at baseline were more likely to report perpetration at the second time point if they resided in a community with high legal cynicism, compared to men living in a community with low legal cynicism whose odds of reporting continued use of IPV were 4.17 times less. The extant

literature indicates that acceptance of partner mistreatment or non-intervention norms with family matters may reduce the magnitude of effect of protective factors in a community.

Exo-Level Factors

Support for two exo-level factors, i.e., social environment and physical environment, was found. Yet, the remaining exo-level factors in the model (see Figure 2), social network density, participation in community-based organizations, and material resources in a neighborhood, have received no attention from researchers vis-à-vis the relation between neighborhoods and IPV. In the IPV literature, the social environment is often characterized by social disorder, specifically the inability to regulate the behavior of others in the neighborhood (e.g., drug dealing, public intoxication, prostitution) (e.g., Van Wyk, Benson, Fox, & DeMaris, 2003). The physical environment is typically characterized by the presence of graffiti, abandoned buildings, or garbage (e.g., Frye et al., 2008). Often, characteristics of the social environment and physical environment are subsumed under one variable, making it difficult to delineate the individual effects of each. Additionally, social and physical environments have been primarily measured at the individual level rather than neighborhood level, limiting interpretation of research findings.

Social Environment. Researchers report a significant relation between "neighborhood disorganization" (e.g., perception of drug dealing, fights, shootings, gangs, abandoned buildings) and higher rates of IPV (HerrenKohl et al., 2007). Operationalizing disorder using both social and physical measures, Cunradi's studies (2007, 2009) found a significant, positive relationship between disorder and rates of IPV perpetration by men, but not by women. Other IPV researchers have included a measure of social disorder; however, reducing it to a single item and subsuming it under concentrated disadvantage made it difficult to ascertain the effects (Van Wyk et al., 2003). In a qualitative study (see Table 2.3) conducted with African American women

living in low-income neighborhoods with histories of IPV victimization, social disorder (e.g., access to drugs, public drunkenness) was rated moderately to highly relevant to IPV perpetration (O'Campo et al., 2005).

Neighborhoods characterized by social disorder have been associated with high rates of neighborhood violence as a result of increased crime such as gang affiliation and drug distribution (Reed et al., 2009). Women who witness or are involved in community violence report significantly higher rates of IPV victimization, yet this relation did not hold for women who perceived community violence in their neighborhood (Browning, 2002; Jain, Buka, Subramanian, & Molnar, 2010). Raghavan and colleagues (2006) found that social disorder mediates rates of IPV. Specifically, living in a neighborhood with higher levels of social disorder increased women's exposure to serious levels of violence, such as armed fights, compared to women living in neighborhoods with low levels of social disorder. In turn, community violence was significantly related to increased rates of IPV.

Research indicates that men are particularly vulnerable to environmental influences. Significant relations were found with men's report of IPV perpetration and (1) perceived (i.e., perception of community violence, perception of the need to fight for survival) and (2) actual neighborhood violence (i.e., involvement in any street violence, involvement with gangs) in high-crime neighborhoods (Reed et al., 2009). Results from two qualitative studies (see Table 2.3) also provided support for neighborhood violence, e.g., involvement in gangs, as an important predictor of IPV perpetration by men (O'Campo et al., 2005; Reed et al., 2008).

Although researchers have hypothesized male economic disenfranchisement or unemployment as causal pathways to IPV perpetration, these results suggest otherwise. To wit, the relation between neighborhood violence and male perpetration of IPV exists beyond

individual-level factors (Reed et al., 2009). Nevertheless, future research must conduct measurement at the community-level in order to validate this interpretation.

Physical Environment. The physical environment is defined as the appearance of the built environment (e.g., vacant lots, vandalism, green space, parks) and is most commonly indicated by graffiti, abandoned buildings, or garbage in research (e.g., Frye et al., 2008; Van Wyk et al., 2003). Several aforementioned studies found a significant relationship between the physical environment and higher rates of IPV when including characteristics of the social environment (e.g., Cunradi, 2007, 2009; HerrenKohl et al., 2007). Other researchers have examined the effect of alcohol outlet density (i.e., the number of businesses selling alcohol in a neighborhood) on rates of IPV in a neighborhood, positing three pathways leading to higher rates of IPV: alcohol outlets promotion of alcohol use, high risk group formation, and loosened normative constraints against violence (Cunradi, Mair, Ponicki, & Remer, 2011).

However, two studies deemphasize the significance of physical disorder (Frye et al., 2008; O'Campo et al., 2005). For example, one study found no significant relation between physical disorder and 'femicide,' the killing of women by men; rather, neighborhood per capita income was the only significant neighborhood-level variable (inversely) related to IPV femicide (Frye et al., 2008). In a qualitative study conducted primarily with African American women living in low-income neighborhoods, physical disorder was not considered important (i.e., of low relevance) to IPV incidence (O'Campo et al., 2005). Still, additional research must be conducted before any strong conclusions can be drawn on the relation between the physical environment and IPV.

Conclusion. Taken together, these results suggest that aspects of social and physical environment may increase the likelihood that men will perpetrate IPV, increasing women's

vulnerability to IPV victimization. Moreover, of the studies that measured social and physical environmental characteristics separately, it appears that the social environment may have stronger effects on IPV than the physical environment, particularly when the social environment is measured using social disorder or community violence. Regardless, many studies have combined these factors, limiting researchers' ability to disentangle the effects.

Meso-Level Factors

Emanating from the proposed combined model, meso-level factors include social capital, economic capital, and collective efficacy. A review of the literature found studies examining economic capital and collective efficacy with respect to IPV. Though, research on social capital as it relates to the relation between neighborhoods and IPV was not found.

Economic Capital. Economic capital, analogous to socioeconomic status (SES), has been modeled most widely in the literature compared to the other elements in the model. Because poverty and disadvantage are complex, multi-dimensional phenomena (Sen, 1992; 1999), researchers often use different variables to operationalize these predictors (e.g., Benson, Fox, DeMaris, & Van Wyk, 2000; Caetano, Ramsetty-Mikler, & Harris, 2010; Herrenkohl et al., 2007; Jain et al., 2010; Miles-Doan, 1998). Concentrated disadvantage and occupational attainment emerged as common indicators of collective SES in this review.

Concentrated disadvantage. Overall, the majority of studies reviewed (80%) found that urban neighborhoods with high levels of concentrated disadvantage (i.e., areas characterized by collectively low income and scarce vocational opportunities) have higher rates of IPV, compared to neighborhoods with lower levels of concentrated disadvantage (Benson, 2000; Benson, Fox, DeMaris, & Van Wyk, 2003; Benson et al., 2004; Fox & Benson, 2006; Miles-Doan, 1998; O'Campo, 1995; Van Wyk et al., 2003; Wright & Benson, 2011). For example, after analyzing a

sample of 4,640 adult females across 80 Chicago neighborhood clusters using hierarchical linear modeling, Wright and Benson (2011) found that IPV was more likely to occur (OR = 1.13, CI 95% [1.04, 1.22]) in neighborhoods characterized by poverty and disadvantage than in neighborhoods not characterized by poverty and disadvantage. Notably, several studies found the relationship between neighborhood disadvantage and IPV to be non-linear (Benson et al., 2003; O'Campo et al., 1995). Specifically, IPV was disproportionately higher for individuals living in the *most* disadvantaged neighborhoods. For example, Benson and colleagues (2003) grouped census tracts by disadvantage in quartiles and found that census tracts in the most disadvantaged quartile had nearly double the rate of IPV compared to all other quartiles. These results are congruent with Sampson and Wilson's (1995) rationale of 'concentration' or threshold effects, in which neighborhood effects only influence violence in the most distressed neighborhoods.

While there is substantial support in the literature for the relationship between concentrated disadvantage and IPV, several studies did not find significant results. For example, Jain and colleagues did not find a significant relationship between concentrated poverty (i.e., % of persons unemployed, receiving public assistance, and living below the federal poverty level) and IPV rates (2010). Furthermore, Browning found that after controlling for individual and dyadic characteristics, the relationship between structural characteristics of a neighborhood and IPV became non-significant (2002). Thus, there is some mixed evidence in support of a relationship between concentrated disadvantage and IPV.

Occupational Attainment. One of the earliest studies found that neighborhoods with high rates of male unemployment were predictive of high rates of severe IPV (Miles-Doan, 1998). Further support was found when Cunradi and colleagues (2002) reported a significant positive relation between neighborhoods with high unemployment (i.e., >10% of population over 16

years in labor force reported unemployed) and severe IPV - albeit this relationship did not hold with moderate IPV. Moreover, Caetano and colleagues (2010) found that neighborhoods having a higher proportion of individuals who were unemployed, in working class jobs, or living below the poverty line were significantly more likely to have a higher prevalence of IPV. Others did not find any support for this relationship (e.g., Frye et al., 2008). If the collective level of unemployment is indeed a predictor of IPV, it may be more pertinent to severe IPV rather than moderate IPV.

Conclusion. Theorists have primarily explained the relation between economic capital and IPV at the individual level (see Bell, 2003; Hampton et al., 2003). Alternatively, from a community-level perspective, DoH theorists suggest that neighborhoods with low economic capital can result in fewer businesses and jobs available in the community, thus lowering the overall status of the neighborhood. With less economic capital, fewer resources are developed in and maintained by the community, such as housing and education. In turn, these structural determinants contribute to health disparities between communities. While some support exists in the literature, these relations have yet to be fully tested as they relate to IPV.

Collective Efficacy. Collective efficacy is defined as the "ability of communities to effectively mobilize to regulate local crime" (Browning, 2002). It is often operationalized by combining measures of social cohesion (i.e., solidarity or mutual trust amongst community members) and informal social control (i.e., a community's ability to manage criminal activity) (Sampson et al., 1997). Some support exists for each of these predictors, yet contradictions in the literature materialized.

Differences emerged among the studies reporting evidence of collective efficacy as a neighborhood-level predictor of IPV (Browning, 2002; Jain et al., 2010; Wright & Browning,

2011). For example, Browning (2002) found that collective efficacy mediated the relation between neighborhoods and IPV. Specifically, disadvantaged communities with high levels of collective efficacy had a 47% reduction in IPV homicides compared to disadvantaged neighborhoods with low levels of collective efficacy. Jain's study (2010) corroborated these findings, although results revealed that the protective effects of collective efficacy only impacted neighborhoods with low- to mid- level poverty, not neighborhoods with high-levels of poverty. Wright and Benson (2011) found that higher levels of collective efficacy significantly predicted lower IPV rates, but did not significantly mediate the relation between disadvantaged neighborhoods and severe IPV. Finally, one study found no support for collective efficacy as a predictor of IPV (Emery et al., 2011).

While many studies have reported on combined measures of social cohesion and informal social control to operationalize collective efficacy, other studies have examined these predictors individually. Findings from a qualitative study with a sample of 37 African American women residing in Baltimore indicated that expressions of social cohesion (e.g., communication between neighbors, community networks, neighborhood meetings) and informal social control (e.g., people who take a stand, alertness/vigilance of people, curfew) among neighbors had substantial impacts on IPV cessation in their neighborhoods (O'Campo et al., 2005). These findings were partially confirmed in a study using a national sample of adult, heterosexual couples; to wit, a path analysis revealed a significant, negative direct path from social cohesion to IPV; however, the direct path between informal social control and IPV was non-significant (Cateano et al., 2010). That is, social cohesion was significantly associated with reduced rates of IPV, while informal social control did not significantly affect IPV prevalence. However, another study (Frye

et al., 2008) found no evidence of the relation between social cohesion and femicide (i.e., homicide of a woman by an intimate partner).

These contrary findings suggest that collective efficacy may only be relevant in neighborhoods with certain degrees of poverty or that specific functions of collective efficacy affect IPV. Perhaps only social cohesion, not informal social control, contributes to the relation between collective efficacy and IPV. Researchers have suggested that the role of collective efficacy may be more salient for victims compared to perpetrators because community members are more likely to intervene using community resources or referral services, rather than intervene directly with a violent perpetrator (Browning, 2002; Jain et al., 2010). Although preliminary findings are promising, more research is needed to better understand collective efficacy, social cohesion, and informal social control as each relates to IPV.

Using the combined theoretical model as a guiding framework, it appears that there is empirical support for a number of elements of the model, namely social environment, physical environment, economic capital, collective efficacy, and IPV intervention norms. Yet, several empirical examinations have yielded null findings, or the constructs remain under-researched in the IPV field. Future investigators should examine the relation between IPV and manifestations of the socioeconomic and political context, social network density within a neighborhood, participation levels in community based organizations, material resources, and the level of social capital in a community.

Discussion

Much of the IPV literature has focused on individual characteristics of survivors and perpetrators, and dyadic dynamics of violent couples (Stith et al.,2004); however, the research reviewed in this paper demonstrates that higher order levels of ecology (i.e., macro, exo, meso)

may have an effect on rates of IPV. That is, there may be higher rates of IPV in certain neighborhoods because of contextual effects (i.e., characteristics of an area in which a group of people reside), in addition to the compositional effects (i.e., characteristics of a group of people) that are more commonly studied. Nonetheless, the theoretical gaps, limited predictors examined, and lack of mediational studies that inductively build and deductively confirm theoretical frameworks in this field restricts researchers' understanding of ecological effects on IPV.

Extending ecological IPV research beyond solely SDT concepts (see Pinchevsky & Wright, 2012) and narrowing the focus from an international scope (see VanderEnde, Yount, Dynes, & Sibley, 2012) to neighborhoods in the United States, the combined model proposed herein provides a theoretically and empirically valid framework from which to interpret the relationships between macro-, exo-, and meso-level factors related to the individual-level behaviors of IPV. Specifically, IPV intervention norms (macro-level), the social environment and physical environment (exo-level), and economic capital and collective efficacy (meso-level) emerged as significant factors related to IPV.

Preliminary though promising support of one of the most distal, macro concepts in the model indicates that IPV intervention norms mediates the relation between collective efficacy and IPV. However, theory indicates this macro concept may more readily reflect a moderating relationship. Socioeconomic and political context has yet to be examined as it relates to IPV. It would behoove policy analysts to examine, for example, educational, mortgage lending, or criminal justice policy and legislative effects on the social environment (e.g., prostitution, drug dealing) and physical environment (e.g., crowding) of a neighborhood.

Among the exo-level factors, the social environment (characterized by social disorder, community violence) and physical environment (characterized by alcohol outlet density)

materialized as important predictors of IPV. However, individual-level measurement was used to study community violence, a neighborhood-level construct (e.g., Reed et al., 2009), suggesting these results should be interpreted with caution. Future research must advance measurement standards to the community-level to more accurately evaluate ecological effects. Although social environment manifests in the literature as a stronger predictor than physical environment, researchers have not adequately investigated the role of physical environment as it relates to IPV. Thus, conclusions about the physical environment's effect on IPV would be premature. Additionally, a number of exo-level factors in the combined model remain under-researched, namely social network density, participation in community based organizations, and materials resources in a community. Investigation into these exo-level factors may be beneficial as this field of research builds a stronger theoretical base.

Economic capital, a meso-level factor, is the most widely researched level-two predictor of IPV. Although economic capital (most commonly characterized as concentrated disadvantage) is a robust predictor of IPV, researchers must examine mediators of this relation to more aptly identify models of change. Additionally, future research on the role of social capital as it relates to neighborhoods and IPV may enhance areas of intervention and prevention.

Finally, promising evidence indicates that collective efficacy may mediate the relation between neighborhoods and IPV, and may serve as a useful point of intervention with communities. For example, Yoshihama and colleagues (2012) conducted an intervention study aiming to enhance collective efficacy with an Asian Indian population in a Midwestern city. Known as the Shanti Project, this intervention raised awareness of IPV and built individual and collective IPV intervention skills among residents. Although the authors did not report the

effectiveness of this intervention, the Shanti Project provides an example of raising collective efficacy within a community to reduce rates of IPV.

Limitations

Several limitations qualify the findings of this integrative review. First, the generalizability of this study is limited to male-to-female partner violence within heterosexual relationships. Also, a limited number of datasets were used for the quantitative studies reviewed, which may have produced homogenous results among the studies. Due to the resource-heavy nature of neighborhood level data collection, few researchers are able to conduct ecological studies with primary data. As such, only several publically available datasets containing neighborhood-level variables exist for researchers to analyze. Finally, the results are limited to published manuscripts; unpublished findings may provide insight into elements of the proposed conceptual model.

Intervention Implications

Results of this review, informed by a systematic, integrative model, suggest that a systematic approach to IPV prevention and intervention is likely to yield more effective results than solely individual-focused, reactive interventions. The majority of IPV interventions have been reactive to those who commit and are affected by violent behavior (e.g., law enforcement, victim services) (Doll, Haas, Bonzo, Sleet, & Mercy, 2007), however, applying resources in the form of prevention at the macro-, exo-, and meso-levels may have longer-lasting effects, and thus, may be more cost effective to tax-payers over time (Foster &Jones, , 2006; Kleitz, Borduin, & Schaeffer, 2010). Understandably, resources are often applied to immediate crises and, primarily, towards victims (e.g., Niolon et al., 2009); nevertheless, if we do not begin to make

structural and systemic changes in the way of prevention and intervention, our efforts will continuously be focused on crisis, with limited overall impact.

Each level of the model serves as a potential point of intervention. For example, Medicaid coverage of batterer intervention programs would target the socioeconomic and political context (e.g., macro-level). Also, zoning regulations relating to alcohol sales or outlets permissible per square mile may influence the physical and social environment (exo-level), while state incentives to establish businesses in high-risk neighborhoods may affect the physical environment (exo-level). Finally, social marketing and media campaigns targeting attitudes, beliefs, and behaviors may influence the level of collective efficacy among neighborhood residents (meso-level).

Scientific Implications

The proposed model (see Figure 2) provides a tool to aid the field of IPV prevention as it continues to move forward. The logical adequacy and reasonable testability of social disorganization theory (Sampson et al., 1997; Shaw & McKay, 1942) combined with the broader, more complex framework of social determinants of health (Marmot & Bell, 2012; Wilkinson & Marmot, 2003; WHO, 2010) provides a comprehensive framework of predictors and mechanisms aimed at prevention. Moreover, this paper bridges the conceptual model with the measurement model, aiding future scientific inquiry. Scientists should explore under-researched areas such as the relations between IPV and (1) the social and political context and (2) levels of social capital. Additionally, the underlying mechanisms proposed in the model (e.g., collective efficacy) must be tested to aid in the development of neighborhood-level interventions.

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Table 2.1

Literature Search Stage: Article Search Parameters

Search Terms	Intimate partner violence; domestic violence; partner violence; neighborhood; community; multilevel modeling; wife-battering; social determinants of health; social disorganization theory
Data Bases	American Psychological Association; Cambridge Journals; Elsevier; JSTOR; MEDLINE; SAGE Journals; Sage Publications; Web of Science
Years Included	1995 - 2014

Table 2.2

Empirical Articles: Quantitative Methodology

Article	Data Source	Location	N	Community level variables in model	IPV Outcome
Benson, Fox, DeMaris, & Van Wyk, 2000	NSFH	U.S.	6,067	Concentrated disadvantage, Poverty	Physical violence
Benson, Fox, DeMaris, & Van Wyk, 2003	NSFH; U.S. Census	U.S.	5,031	Concentrated disadvantage	Physical violence
Benson, Wooldredge, Thistlethwaite, & Fox, 2004	NSFH; U.S. Census	U.S.	5,647	Concentrated Disadvantage	Physical violence
Bonomi, Trabert, Anderson, Kernic, & Holt, 2014	Seattle Police Department's Domestic Violence database; Survey data; U.S. Census	Seattle, WA	5,994 couples	Concentrated disadvantage	Non-Physical Abuse; Physical violence
Browning, 2002	PHDCN; U.S. Census; Chicago Homicide data; CHSLS	Chicago, IL	199	Concentrated disadvantage; Residential Stability; Immigrant concentration; Collective efficacy; Non-intervention norms	Female homicide; nonlethal severe physical violence; relationship conflict disclosure
Caetano, Ramisetty-Mikler, & Harris, 2010	n/s	U.S.	1,136	Education; Unemployment; Working-class composition; Poverty; Perceived social cohesion; Perceived informal social control	Physical violence
Cunradi, Caetano, & Schafer, 2002	NAS	U.S.	1,615	Unemployment	Physical or sexual violence
Cunradi, 2007	NHSDA	U.S.	19,035	Social disorder	Physical violence (mutual)
Cunradi, 2009	NHSDA	U.S.	2,547	Social disorder	Physical violence (mutual)

Cunradi, Mair, Ponicki, & Remer, 2011	Sacramento Police Department defined small geographic areas	Sacramento, CA	576*	Alcohol outlet density; %under 150% of poverty level, %HS graduates, unemployment rate; %Hispanic; %Black	IPV-related police calls; IPV-related crime reports
Emery, Jolley, & Wu, 2011	PHDCN; U.S. Census	Chicago, IL	599	Concentrated disadvantage; Ethnic heterogeneity; Residential instability; Collective efficacy; Legal cynicism	IPV Desistance (physical)
Fox & Benson, 2006	NSFH; U.S. Census	U.S.	2,273	Concentrated disadvantage	Physical violence (mutual)
Frye et al., 2008	NYC Dept. of Health and Mental Hygiene; U.S. Census; City administrative data	New York, NY	446	Social cohesion; Educational and Occupational attainment; Immigrant concentration; External Physical Disorder; Interior Physical Disorder;	Femicide
Herrenkohl, Kosterman, Mason & Hawkins, 2007	Seattle Social Development Project	Seattle, WA,	644	Perceived norms of antisocial behavior; residential mobility; social disorganization	Physical violence (mutual)
Jain, Buka, Subramanian, & Molnar, 2010	PHDCN	Chicago, IL	633	Collective efficacy; concentrated poverty; perceived community violence	Physical violence (mutual)
Miles-Doan, 1998	UCR	Duval County, FL	8,501	Resource deprivation; structural density; residential mobility	Non-robbery assault
O'Campo et al., 1995	n/s	Baltimore, MD	157	Social Class	Physical violence
Raghavan, Mennerich, Sexton, & James, 2006		Multi-site study in 6 U.S. cities	50	Social Disorder; Community violence	Physical violence
Reed et al., 2009	BAAMH	Boston, MA	703	Neighborhood violence involvement; perception of neighborhood violence	Physical & Sexual violence perpetration

Smith Slep, Foran, Heyman, & United States Air Force Family Advocacy Research Program, 2014	Active Duty Air Force Members & Spouses	U.S.	34,861 men; 24,331 women	Institutional support; Social Support; Community safety; Community resources; Community cohesion; Support from neighbors	Physical IPV perpetration
Van Wyk, Benson, Fox, & DeMaris, 2003	NSFH; U.S. Census	U.S.	6,610	Social disorganization	Physical violence
Wright & Benson, 2011	PHDCN; CLS; U.S. Census	Chicago, IL	4,640	Concentrated disadvantage; Immigrant concentration; Collective Efficacy	Physical violence

Data Source: BAAMH = Black and African American Men's Health Study; CHSLS = Chicago Health and Social Life Survey; CLS = Chicago Longitudinal study; INFHS-2 = Second Indian National Family Health Survey; NAS – National Alcohol Survey; NHSDA = National Household Survey on Drug Abuse; NFHS = National Family Health Survey; NSFH = National Survey of Families and Households; PHDCN = Project on Human Development in Chicago Neighborhoods; UCR = Uniform Crime Report

n/s = not stated

* = Electronic data processing grids

Table 2.3

Empirical Articles: Qualitative Methodology

Article	Participants	Location	Methodology	N	Community Level Findings
Frye et al., 2012	2 low-income neighborhoods, stratified by collective efficacy	New York, NY	Concept mapping	Brainstorming group, N = 36; Sorting and Rating group, N = 39	Prevention/Intervention points for IPV: (1) formal system, (2) perpetrator, (3) victim, (4) Neighborhood/community
O'Campo et al., 2005	African American women	Baltimore, MD	Concept mapping	Brainstorming group, N = 14; Sorting and Rating group, N = 37	Neighborhood characteristics (good or bad) contributing to IPV
Reed et al., 2008	Males enrolled in a BIP, ages 17-21	New England metropolitan area	Semi-structured interview	19	Family/Home environment, peer context, school, community violence

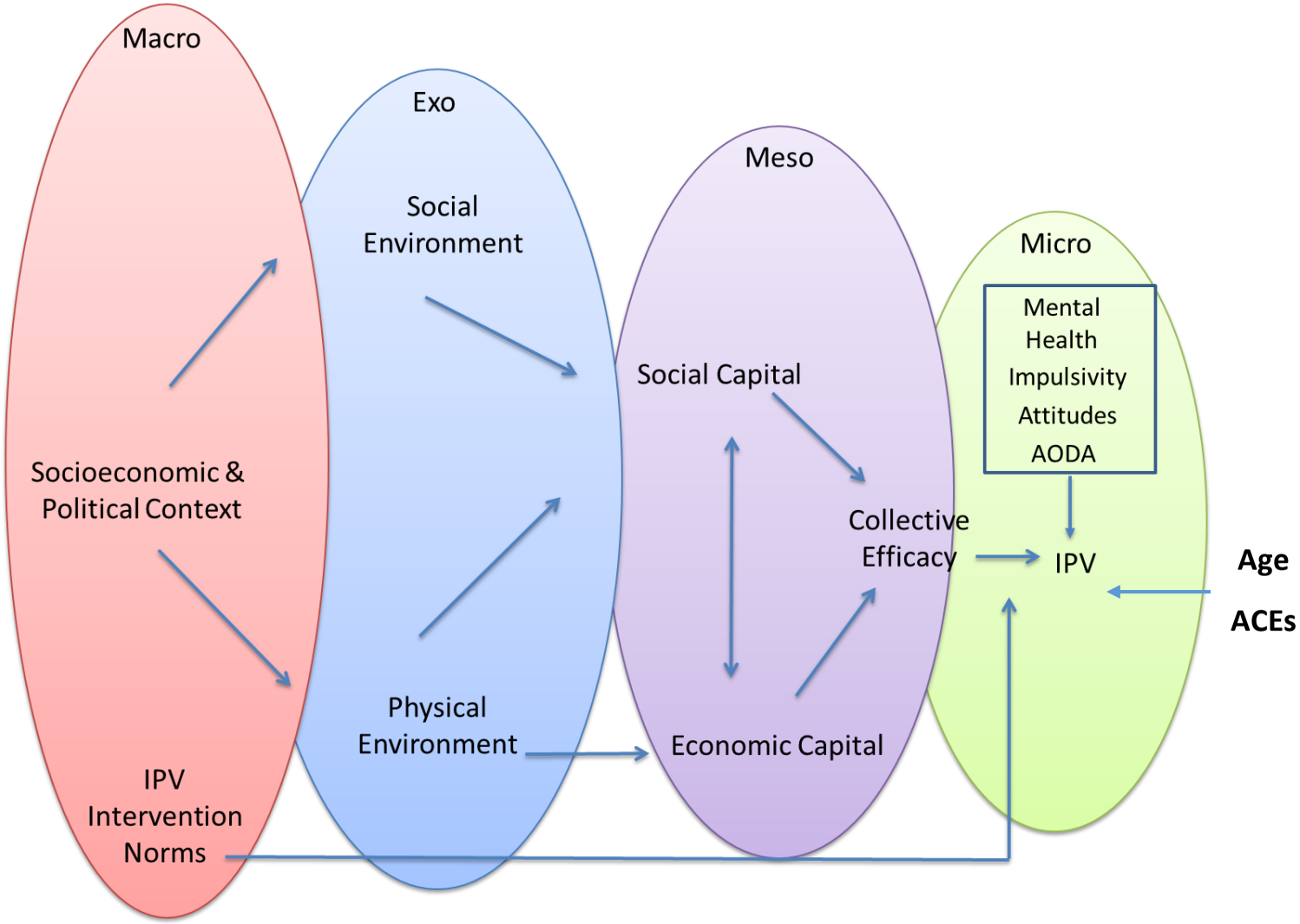

Figure 2. Conceptual Model of Neighborhood Effects on IPV

CHAPTER 3

Neighborhood Predictors of Intimate Partner Violence: A Theory-Informed Analysis using Hierarchical Linear Modeling

Introduction

Intimate partner violence (IPV) is a significant public health problem. IPV includes physical violence, sexual violence, stalking, and psychological aggression (including coercive tactics) by a current or former intimate partner (Breiding, Basile, Smith, Black, & Mahendra, 2015). The most recent national public surveillance data indicates nearly 1 in 3 women have experienced physical violence and 1 in 4 women have experienced severe forms of physical violence by an intimate partner in her lifetime (Breiding et al., 2015). Nearly 10% of women are raped by intimate partners and nearly 16% experience other forms of sexual violence from their intimate partners during their lifetime (Brieding et al., 2014). Finally, estimates of women's exposure to psychological aggression in their lifetime reach 47% (Brieding et al., 2014).

Much of IPV research focuses on individual or dyadic factors related to the risk of victimization or perpetration (e.g., Capaldi, Knoble, Shortt, & Kim, 2012), in large part, due to an underlying assumption that violence between intimate partners occurs "behind closed doors" (Straus, Gelles, & Steinmetz, 2006). Consequently, most interventions have focused primarily on the individual. However, research has illuminated the visibility of gender violence within neighborhoods (Miller, 2008), and because the act of IPV occurs in the context of communities and neighborhoods, research must focus not only on individual-level factors but also on the broader environment in order to successfully facilitate behavior change.

Theory asserts that environments can enhance or diminish the risk of violence, even among intimate partners. Specifically, the Determinants of Health framework (Marmot & Bell, 2012; Marmot, Rose, Shipley, & Hamilton, 1978) highlights structural arrangements (e.g., class) and social conditions (e.g., poverty) that influence available opportunities, such as gainful employment or transportation, and overall quality of life as factors contributing to the

disproportionate rates of IPV in impoverished communities, particularly in communities of color (e.g., Hampton, Oliver, & Magarian, 2003). However, due to the complex scope of Determinants of Health, testability of this theory is more difficult. Social Disorganization Theory (SDT) (Sampson, Raudenbush, & Earls, 1997; Shaw & McKay, 1942), while not inclusive of macro-level forces, is a theory with more reasonable testability. SDT focuses on social processes within impoverished neighborhoods, such as collective efficacy, that lend themselves towards the breakdown or maintenance of social fabric shaping social norms and conformity. In other words, investment in the community by residents creates conditions in which individuals monitor others' behavior, such as IPV. Combining these two theories asserts that affecting behavior change stems from processes and efforts that are both external to the community (e.g., local policies) as identified by Determinants of Health and internal to the community (e.g., community organization) as acknowledged by Social Disorganization Theory. Undoubtedly, individual-level factors such as gender beliefs or impulsivity have a substantial effect on intimate partner violence, yet the environments in which individuals exist can enhance the risk of these individual-level factors contributing to the occurrence of IPV.

Gaps in the Literature

Previous studies examining environmental or neighborhood context and IPV have provided useful insights, however, these studies have notable limitations. First, many studies have examined clustered data using logistic regression (e.g., Benson, Fox, DeMaris, & Van Wyk, 2003; Gracia & Herrero, 2007; Pearlman, Zierler, Gjelsvik, Verhoek-Oftedahl, 2003; Van Wyk, Benson, DeMaris, & Fox, 2003), which does not take into account the clustering effect of the data and can lead to biased standard estimates (Raudenbush & Bryk, 2002). If data points are clustered, e.g., within neighborhoods, individuals are more likely to be similar to each other,

violating the rule of independence and resulting in each individual in the sample providing less information. If this correlation is not accounted for, small standard errors, narrow confidence intervals, and small p-values can be spuriously produced.

Additionally, most studies have examined factors related to women's risk of IPV victimization (e.g., economic dependency, social networks) (e.g., Golden, Perreira, & Durrance, 2013; Levendosky et al., 2004; Li et al., 2010; Lindhorst & Tajima, 2008). For example, Golden and colleagues (2013) examined mother's risk factors for IPV victimization using the Fragile Families dataset. Results from adjusted multivariate logit models indicated that maternal economic hardship and dependency, and women's traditional gender beliefs (but not neighborhood disadvantage) significantly increased the risk of women living with a romantic partner. This study did not include important risk factors for men, limiting intervention implications to victims. Fewer studies have included male-report of risk factors related to men's use of violence against their partners (e.g., substance use, male level of education, female to male partner violence) (e.g., Caetano, Schafer, & Cunradi, 2001; Frye, 2007), hampering researchers' understanding of men's experiences related to violence perpetration, and ultimately limiting intervention implications for violence prevention and intervention with men.

Finally, due in part to a tenuous theoretical framework, the neighborhood-level predictor models tested tend to be under-identified and relatively limited in depth. Most ecological studies examining IPV are atheoretical or ascribe to a single theory, Social Disorganization Theory; as a result, this body of research maintains a diffident theoretical perspective (VanderEnde, Yount, Dynes, & Sibley, 2010). While Social Disorganization Theory certainly has merit, it is limited in the number of ecological levels it considers, i.e., it does not include macro-level effects. It also is not easily applied to IPV due to community members' unwillingness to intervene in intimate

partner conflicts, which are considered private, compared to other types of social disorder or crime (Browning, 2002; Emery, Jolley, & Wu, 2011).

The Current Study

The current study employs hierarchical linear modeling to model the relationship between neighborhoods and male to female IPV using the Fragile Families dataset, allowing for more robust conclusions to be drawn. To add to the limited research focusing on men's experience as perpetrators, the current study includes important individual-level risk factors related to men's use of IPV. Finally, this study expands the range of neighborhood-level predictors under study using a conceptual model drawing from Determinants of Health (Marmot & Bell, 2012) and Social Disorganization Theory (Sampson et al., 1997; Shaw & McKay, 1942). The study aimed to answer the following research questions.

1. Do levels of male to female IPV vary across census tracts, a proxy for neighborhoods?
2. If so, do neighborhood-level factors stemming from the Determinants of Health framework, i.e., social environment and social capital, and Social Disorganization Theory, i.e., social disorganization and collective efficacy, have an effect on the occurrence of male-to-female IPV, when controlling for important individual-level risk-factors for men, i.e. alcohol and drug use, level of education, employment, age, female-to-male IPV, and impulsivity?

Methods

Participants and Data

The Fragile Families and Child Wellbeing Study dataset (Reichman, Teitler, Garfinkel, & McLanahan, 2001) is comprised of a cohort of nearly 5,000 children born in 16 U.S. metropolises. In this study, approximately two-thirds of the families are considered "fragile

families" in that they were determined to be at great risk of breaking up and living in poverty compared to "traditional families" (Center for Research on Child Wellbeing, 2015). The first five waves of the data include information from an in-person interview at the hospital after birth (baseline) and four follow-up telephone interviews with mothers and fathers when the child was 1, 3, 5, and 9 years old.

The dataset includes the core study questions surveyed at each wave and ancillary study questions surveyed at different waves. Although IPV was assessed at each time point, neighborhood variables of interest (e.g., social cohesion, informal social control) were only collected during the fourth wave of the Fragile Families Study, i.e., when the child was five years old. As a result, the current study analyzed data in the fourth wave. Of the total sample (N = 4,898), n = 759 participants were not in the wave. This attrition rate, i.e., 16%, meets acceptable standards of large-scale survey studies, for which there is an expectation of some level of attrition (Fowler, 2002).). A number of wave four participants, n = 2,177, responded that they were not currently in a romantic relationship with the father of their child and, subsequently, were not included in the primary analyses. However, of this subsample, 843 mothers reported that they were previously involved in a romantic relationship with the father of their child and reported on IPV in the last month of their relationship; robustness checks were completed on this subsample. Women who reported involvement in a romantic relationship with a partner other than the father of her child (n = 1,071) were excluded from the analysis because follow-up surveys were not conducted with these partners. After identifying the subsample of mother's reporting on IPV in their current relationship with the father of the child, data from the fathers were matched and census tract data was applied to those cases. Only census tracts that included

more than one participant (*range* 2-8) were included in the final analysis; thus, the final sample included n = 474 individuals across n = 186 census tracts (see Figure 3).

Measures

Outcome Variable

Male to Female Partner Violence. Lindhorst and Tajima (2008) have conceptualized IPV as a "pattern of behaviors that yields adverse effects perceived by the victim (e.g., injury, harm, fear, intimidation) and that is motivated by the perpetrator's need for power" (p. 364). As a result, IPV was conceptualized to incorporate the multi-dimensional nature of intimate partner violence, including psychological aggression, and physical or sexual violence. *Psychological aggression* was operationalized using 6 indicators (e.g., father "keeps me from seeing or talking to friends or family," "prevents me from going to work or school," "prevents me from keeping my own money or obtaining access to family money") ($\alpha = .671$). *Physical or sexual violence* was operationalized using 5 items (i.e., the father of your child "hits you with a fist or object that could hurt", "slaps or kicks you", "throws something at you", or "pushes, grabs, or shoves you", "forces unwanted sex") ($\alpha = .783$). Each item assessed how often the behavior occurred (i.e., never, sometimes, often), with no specific time frame appended to the question. Some of the items are drawn from the Conflict Tactic Scale, a well-validated and widely used scale in research (Straus, 1979; Straus, Gelles, & Steinmetz, 2009 [1980]). Other items are drawn from Lloyd (1997) and her interviews with domestic violence victims.

The items were coded such that low numbers reflected less violence exposure and high numbers indicted more violence exposure. Separate t-scores were created for each type of violence exposure, i.e., psychological aggression ($M = 49.65$, $SD = 9.52$, range: 44.11 – 116.18),

and physical or sexual violence (M = 49.84, SD = 10.21, range: 48.14 – 181.32). Summing each of the t-scores and dividing by the total number (2), the variable *Total IPV* was created.

Level-Two Variables

Social Environment. Conceptualized using the Determinants of Health framework, the social environment includes elements of stressful living conditions (e.g., perception of drug dealing, fights, shootings, gangs) (Solar, 2010). In this study, father's perception of community-based violence was measured using a single item, "Have you ever been afraid to let you child go outside because of violence in your community?" This variable was averaged within census tracts to aggregate the level of perceived community violence within a census tract. The variable ranged from 0 (no perception of violence) to 1 (perception of violence).

Social Disorganization. Drawing from Sampson and colleagues' (1997) theory of social disorganization, concentrated disadvantage, immigrant population, and residential instability were constructed from 2000 U.S. Census data, corresponding with the time of data collection. After conducting a parallel analysis (Watkins, 2000) and an exploratory factor analysis (Kaiser, 1960), two factors emerged. *Concentrated disadvantage*, the first factor, was made up of five indicators: percent of families below poverty level in 1999; percent of households on public assistance; percent of civilian labor force (16+) unemployed; percent family households with kids below age 18 headed by females; and the percent population non-Hispanic Black in a census-tract. *Immigrant population*, the second factor, consisted of two indicators: percent of population Hispanic and percent foreign born in a census-tract. Factor correlation indicated that there was less than a 10% overlap of variance among factors and, thus, a Varimax rotation was applied (Tabachnick & Fidell, 2007). Regression based factor scores for both constructs were determined using SPSS version 22.0. Finally, *residential instability* was operationalized using a

single indicator, percent of renter-occupied housing units in a census-tract, and modeled as a continuous variable. Typically this variable includes the duration of residency, i.e., living in same home for five years or more (Sampson et al., 1997); however, this information was not available. Nevertheless, renter-occupied compared to owner-occupied units represent more transient tenets, i.e., residential instability.

Social Capital. Social capital has been conceptualized as a psychosocial process (i.e., the relationships that exist between neighbors or social support) and the material resources that contribute to or deprivation that detracts from a community (Bourdieu, 1986; Coleman, 1988; Hunter, Neiger, & West, 2011). Two items indicated social capital: *social network density* and *community based participation*. *Social network density* was measured using one item, "How many of the families on your block would you say that you know well?" Responses to this item were averaged within each census tract. Ranging from 1 to 5, the response scale was coded to have lower scores reflect loose social networks and higher scores reflect dense social networks. Men's level of p*articipation in community based organizations* was operationalized using the item "Do you participate in any groups, such as senior centers, social groups, work groups, church, charity, service, or community groups?" Responses to this item were averaged within each census tract. The variable ranges from 0 to 1, with 1 indicating high community based participation and 0 indicating low community based participation.

Collective Efficacy. Collective efficacy is the "ability of communities to effectively mobilize to regulate local crime" (Browning, 2002). Following theory and previous research (Sampson et al., 1997), two factors emerged from parallel analysis (Watkins, 2000) and exploratory factor analysis (Thompson, 2004), i.e., social cohesion and informal social control. Scores were summed for each factor and averaged across census tracts. Respondents were asked

to what extent they agree or disagree with the following statements regarding social cohesion, "people around here are willing to help their neighbors"; "this is a close-knit neighborhood"; "people generally don't get along with each other"; "people in this neighborhood do not share the same values"; "gangs are a problem in this neighborhood" ($\alpha = .754$). Informal social control was assessed by asking respondents how likely neighbors were to intervene if they witnessed "children skipping school and hanging out on street corners"; "children spray painting buildings with graffiti"; "children showing disrespect to an adult"; "fight broke out in front of their house"; "neighbor fire station threatened/budget cut" ($\alpha = .860$). The response scale was coded to have low numbers reflect low levels of social cohesion or informal social control and high numbers reflect high levels of social cohesion and informal social control.

Level-1 Variables

Focusing on men-as-perpetrators, each individual-level variable included in the analysis was based on father's characteristics. That is, all level-1, or individual-level, variables were based on father-report. Previous research indicating risk factors for men's use of IPV guided the inclusion of each factor (e.g., Stith et al., 2004).

Alcohol Use. Alcohol use was conceptualized using the consumption and frequency of binge drinking. The Substance Abuse and Mental Health Service Administration Alcohol Use Disorder guidelines (SAMHSA, 2014) were used to model drinking behavior closest to moderate, binge, and heavy drinkers standards. The variable was created using responses from the following two items, "what is the largest number of drinks you have had in a single day in the last 12 months" and "in the past 12 months, how often did you have 4+ drinks in one day"? Based on the responses, *Abstainers/Moderate* drinkers included individuals who reported 0 drinks in the past year or occasions in which they consumed 1-3 drinks in the past year. A small

number of cases (n=3) refused to answer; these cases were coded as *Abstainers/Moderate* drinkers resulting in a conservative estimate. *Binge drinkers* included individuals who reported consuming 4 or more drinks less than once a month or about one time per month in the past 12 months. *Heavy drinkers* included individuals who reported consuming 4 or more drinks a few times a month, every week, or every day in the past 12 months.

Drug Use. Illicit drug use was captured using 10 items inquiring if men had used illicit substances (e.g., crack/cocaine, heroin, marijuana) in the past 12 months. Because the number of men endorsing drug use was so small (n =68), the categories of drug use (sedatives (n = 10); tranquilizers (n = 3); amphetamines (n =2); analgesics (n = 7); inhalants (n = 2); marijuana (n=59); cocaine (n=12); LSD (n=3); Heroin (n=1)) were collapsed into a dichotomous variable. Endorsement of any drug use was coded 1, else 0. Any cases that refused to answer (n = 2) were coded 0, resulting in a conservative estimate.

Education. To construct father's self-reported level of education, data from waves 1-4 were used to ascertain men's current level of education at time of survey. The response items were coded as 1 = less than high school, 2 = high school or GED, 3 = some college or technical schooling, and 4 = college graduate.

Employment. Father's employment status was dichotomized using father's report of any legitimate, i.e., legal, work in the past week. Endorsement of this item was coded 1, else 0.

Age. Father's age was based on self-report and modeled as a continuous variable.

Impulsivity. Father's level of impulsiveness was measured using six items from the Dickman scale (1990) of dysfunctional impulsivity ($\alpha = .842$). Collected in wave 2, items such as "Often, I don't think before I act" and "I often say or do things without considering the consequences" were measured on a scale ranging from 1 (strongly disagree) to 4 (strongly

agree). Scale items were summed for each individual; low numbers indicated low levels of dysfunctional impulsivity and high numbers indicated high levels of dysfunctional impulsivity.

Female to Male IPV. Father report of IPV victimization reflected the same items used to conceptualize women's report of IPV victimization, however, the items were worded "how often does the mother of your child…" with a scale of frequency, i.e., 1 = never, 2 = sometimes, 3 = often. Separate t-scores were calculated for each type of violence exposure, i.e., psychological aggression ($\alpha = .691$) and physical or sexual violence ($\alpha = .732$). Summing each of the t-scores and dividing by the total number (2), the variable *Female to Male Partner IPV* was created.

Data Analysis

The participants in the sample were drawn from census tracts in 16 U.S. metropolises; due to the inherent grouping, or "clustering," of participants in certain areas (i.e., census tracts), it is possible that using multiple regression with this sample may lead to biased standard error estimates. The use of multilevel models account for these clustering effects and yields more accurate estimates, allowing for more robust conclusions to be drawn (Raudenbush & Bryk, 2002). An intraclass correlation (ICC) is an indicator of the amount of variation attributable to level-two, or neighborhood-level factors, in a relationship. Any relationship with an ICC of 2% or greater suggests the presence of level-two effects. Calculations from this study indicated an ICC of 7.3%. Consequently, multilevel models were employed. Sample weights were missing for half of the sample; as a result, they were not included in the analyses; however, key control variables were included.

Using restricted maximum likelihood estimation (REML), a random intercept model with only level-1 predictors, i.e., men's report of age, alcohol use, drug use, employment, level of education, impulsivity, and female to male IPV victimization, was used to model the outcome,

Total IPV. [1] [2] Through a series of subsequent model building, each individual-level explanatory variable was tested as a fixed and random effect. Drug use, impulsivity, and female to male partner violence emerged as significant fixed effects; however, the variance of the random slope for each explanatory variable was not significant for any model. Although men's age and report of alcohol use, drug use, and employment were not significant, there is strong statistical (Snijders & Boskers, 2012), theoretical, and empirical support for the retention of these predictors (Stith, Smith, Penn, Ward, & Tritt, 2004). As such, based on the theoretical background of the relations between these predictors and the occurrence of IPV, and some exploratory analyses, the random intercept model was considered the best model (Raudenbush & Bryk, 2002). After model building was complete for level-1 predictors (Raudenbush & Bryk, 2002), the level-two predictors, i.e., neighborhood-level predictors, were entered into the model. The models were run using *Proc Mixed* in SAS version 9.4.

Robustness checks were completed with the sample of mothers and fathers who were not romantically involved at wave 4, but who were in a relationship with each other previously (n = 843). Due in large part to census tracts having fewer than two respondents (n = 457) and missing data for level-2 variables, such as census tract identifiers (n = 296), and level-1 variables, such as impulsivity (n =22) and female to male partner violence (n=35), it was not feasible to apply multi-level models. As a result, t-tests were conducted on all level-1 variables comparing intact partnerships and mothers and fathers who were romantically involved at a previous wave.

Results

[1] Sattherwaite approximation was used to define the degrees of freedom as recommended by Manor and Zucker (2004).
[2] The G-matrix covariance using the unstructured (UN) matrix was not significant; as a result, the variance component (VC) matrix was used because it is a simpler model.

Descriptive statistics

In the sample, most women reported no or little exposure to intimate partner violence. Of the two subscales comprising Total IPV, *physical or sexual violence* exposure in the sample was similar and *psychological aggression* was higher compared to national incidence rates. In the sample, 2.6% of women endorsed experiencing at least one form of physical or sexual violence in their relationships compared to the national estimate of 2.1-2.3% of women experiencing physical or sexual violence in the last 12 months (Breiding et al., 2014). Over 35% of women in the sample reported at least one form of *psychological aggression* in their relationship compared to an estimated 14.2% of women who experience some form of psychological aggression in the last 12 months (Breiding et al., 2014).

Descriptive statistics in Table 3.1 indicate that on average, men in the sample were 33 years old, had at least a high school degree, were employed in the last week, reported low to moderate drinking, very little drug use, low to moderate levels of dysfunctional impulsivity, and comparable levels of female to male IPV to women's report of IPV. Table 1 also indicates that on average within a census tract, the level of concentrated disadvantage was 17%, the immigrant population comprised 20% of the total population, a little less than half of the houses were renter-occupied, and overall residents 'agreed' that the neighborhood was socially cohesive (social cohesion) and that their neighbors would likely intervene if something bad was happening in the neighborhood (informal social control). Additionally, on average within census tracts men reported knowing very few to some neighbors on their block, a form of men's social network density within neighborhoods, and relatively few men reported participating in community groups. Finally, community violence was perceived to be relatively low on average.

Significant bivariate associations were found between the level-one predictors and the outcome variable. Specifically, drug use, impulsivity, and female to male partner violence were positively correlated, and education was negatively correlated with women's total violence exposure. Among the level-two variables, concentrated disadvantage was positively correlated and social cohesion was negatively correlated with the outcome variable.

Model results

The results of the unconditional model (Model 1), the random intercept model with only level-one predictors (Model 2), and the unconditional model with both level-one and level-two variables (Model 3) are presented in Table 3.2. In Model 2, men's report of female to male partner violence significantly predicted higher rates of women's total IPV exposure. Men's report of drug use trended towards significance (p = .08). That is, men who reported IPV victimization were significantly more likely to perpetrate IPV against their partner and men who reported no drug use were less likely to perpetrate IPV against their partner. In Model 3, the results show that indicators of social disorganization significantly related to rates of IPV. In neighborhoods with higher levels of concentrated disadvantage, women were more likely to report IPV victimization. Neighborhoods with lower rates of renter-occupied housing units significantly predicted women's IPV victimization. Finally, after the level-2 predictors were entered into Model 3, female to male partner violence remained significant and men's use of drugs became non-significant.

Discussion

This study contribute to the growing body of literature investigating the effects of individual and neighborhood factors on men's use of intimate partner violence in an at-risk sample residing in 16 U.S. cities. Individual-level factors, namely female to male partner

violence, emerged as an important predictor of women's IPV victimization. Results from hierarchical linear modeling suggest that indicators of social disorganization within a neighborhood affect the rates of IPV, over and above individual-level predictors.

We found that men's exposure to IPV victimization by their female partners significantly predicted higher rates of IPV perpetration by men. Additionally, men's report of IPV victimization by their female partners remained a significant predictor of women's report of IPV after including neighborhood-level predictors, suggesting that women's use of violent or aggressive behaviors against their partners should be considered when evaluating women's risk of victimization in romantic partnerships. Previous empirical and theoretical research has suggested that less severe forms of intimate partner violence are more commonly bi-directional (Straus, 2011), which may be represented in this sample. To better understand the context of bi-directional violence, i.e., both partners using violence, future research should identify the antecedents of female-to-male and male-to-female partner violence.

At the individual-level, we found that drug use was marginally significant (p = .08); in other words, although this result did not meet the threshold of significance (p = .05), it does suggest that drug use may influence IPV particularly because it emerged from analyses of a relatively small sample. Consistent with previous research (Moore et al., 2008; Kaufman-Kanter & Straus, 1989), this result indicates that men who reported no drug use were less likely to perpetrate IPV compared to men who reported drug use. Once we accounted for neighborhood characteristics, however, drug use became non-significant. These results suggest that a risky environment may moderate the effects of men's drug use on IPV perpetration.

Surprisingly, several empirically validated factors did not predict men's use of IPV against their partners in this sample. For instance, men's use of alcohol did not emerge as a

significant predictor despite strong evidence of its relation to IPV in previous research (Cunradi, Mair, Todd, & Remer, 2012; McKinney, Caetano, Rodriguez, & Okoro, 2010). This discrepancy may be due to measurement issues: SAMHSA guidelines state that binge and heavy drinker statuses should be based on 5+ drinks over a 2 hour period for men, however, secondary data did not allow us to construct the variable as such. Also, although impulsivity has been found to be a strong predictor of violence in other studies (e.g. Edwards, Scott, Yarvis, Paizis, & Panizzon, 2003), when modeled with other covariates, such as female to male partner violence and age, it became non-significant in this model. Reviewing bivariate associations among the variables, we found a significant, negative association between age and impulsivity suggesting that as men get older, levels of impulsivity decrease. Also, a significant, positive association was found between female to male partner violence and impulsivity. Our results suggest that when accounting for contextual and biological variables, levels of impulsivity may be less relevant for IPV.

In our multi-level examination, higher rates of concentrated disadvantage, an indicator of social disorganization, significantly predicted higher rates of IPV; these results are consistent with previous research and theory (e.g., Browning, 2002; Caetano, Ramisetty- Mikler, & Harris, 2010; Cunradi, Caetano, Clark, & Schaefer, 2000; Cunradi, Mair, Ponicki, & Remer, 2011; Emery, Jolley, & Wu, 2011). In fact, in the existing literature, concentrated disadvantage is one of the most robust neighborhood-level predictors of IPV; yet, little research exists examining the underlying mechanisms driving this relation. Some researchers exploring underlying mechanisms have illuminated the ill effects of off-premise liquor outlets (e.g., corner stores) on IPV (Cunradi et al., 2011; Snowden, 2015). Specifically, neighborhoods with a greater density of corner stores and liquor stores, typically found in neighborhoods characteristic of concentrated disadvantage, are more likely to have higher rates of IPV. These results direct policy-makers and

practitioners towards concrete implications (e.g. geographical alcohol outlet regulations). However, without additional research examining potential underlying mechanisms explaining the relation between concentrated disadvantage and IPV, policy-makers and practitioners are left with little in the way of prevention and intervention.

The percent of renter-occupied housing units is another indicator of social disorganization within a neighborhood. Social Disorganization Theory indicates that areas with a higher proportion of renter-occupied housing have an increased risk of unstable neighborhoods with lower investment and loose ties among neighbors (Sampson et al., 1997); however, support for that assertion was not validated in this sample. Instead, results indicated that census tracts with lower rates of renter-occupied housing were more likely to have higher rates of IPV. Because this indicator is typically measured using both percent renter occupied units and residents' duration of stay, it is possible this finding is due to measurement error and may be spurious. Also, it may be too highly correlated with another variable, such as concentrated disadvantage, leading to the problem of multicollinearity. Alternatively, it is possible that this finding may indicate an unexplained underlying mechanism driving the relation between lower rates of renter-occupied units and higher rates of IPV. For instance, residents of owner-occupied units may have more responsibilities and higher rates of stress, which may increase the risk of IPV among couples. Other studies have not found support for residential instability consistent with theory (e.g., Browning, 2002); however, this study alone is not enough to draw a strong conclusion. Future studies should include both indicators of residential instability with self-reported IPV.

Several empirically validated neighborhood-level factors did not emerge as significant in this sample. Previous research points to community violence as an important predictor of IPV

within the home (e.g., Raghavan, Mennerich, Sexton & James, 2007); yet, this predictor did not materialize in the current study. In this study, men's *perception* of community violence was measured, rather than verified rates of community violence. Because these men may normalize violence, the perceived level of community violence may be inadequately reflected in this measurement. Levels of collective efficacy within a neighborhood, i.e., social cohesion and informal social control, did not significantly predict women's IPV victimization. While previous research has identified social cohesion and informal social control as important predictors of IPV (Browning, 2002; Frye, 2007; Wright & Benson, 2012), other researchers have hypothesized that this predictor may be more salient for victims after IPV has occurred, rather than as an agent of prevention, because neighbors may be more comfortable intervening after the fact (Jain, Buka, Subramanian, & Molnar, 2010). Finally, social capital was not significant. Due to the limited measurement modeled for men's participation in the community and social network density (characteristics of social capital) in the current study, future research should explore the relevance and nature of these phenomena with men in relation to their neighborhoods.

The results of this study comported only in part with theory. According to Determinants of Health, structural arrangements and social conditions such as the social environment, e.g., community violence, and social capital, e.g., community based participation and social network density, within the neighborhood influence available opportunities and create contexts that enhance or diminish risk of violence between partners. Yet, these theoretical assertions were not supported in this study. Nevertheless, future studies should include these concepts with improved measurement and design in order to continue the development and refinement of the theoretical framework guiding this body of research. Comporting with theory, concentrated disadvantage aligned with Social Disorganization Theory in that areas of higher concentrated disadvantage

predicted higher rates of IPV. Nevertheless, little empirical research has tested underlying mechanisms driving this relationship. Identifying these underlying mechanisms will be critical in the design and implementation of neighborhood-level policies and interventions. Finally, the other key elements, i.e., residential instability and immigrant population, of Social Disorganization Theory were not supported. In fact, other studies have found immigrant population to have a protective effect for violence (e.g., Caetano et al., 2010). Potentially, this theory may need to be adjusted to fit the unique nature of IPV.

Limitations

This study is not without limitations. First, census tracts were used to approximate neighborhoods, which may have obfuscated important patterns (Anderson & Malleson, 2013). Also,, the items used to operationalize *physical or sexual IPV* focused primarily on severe forms of violence, limiting interpretation of the findings from mild or moderate forms of physical or sexual IPV. Finally, due to the study design, generalizability is limited to intact partnerships. Robustness checks were completed comparing fathers in intact relationships and fathers who were previously involved in a romantic relationship with the mother of their child. Reports of IPV were not significantly different between intact partnerships and previous partnerships; however, the two groups differed significantly on other characteristics. Father's in previous partnerships were significantly more likely to be less educated, younger, unemployed, report higher levels of impulsivity, drug use, and female to male partner violence, and consume alcohol at lower rates, compared to father's whose relationships are currently intact. These results indicate that the effects found in this study are likely underestimated due to the exclusion of a higher-risk sample.

Future Research & Implications

Future research should examine neighborhood factors related to IPV based on theoretical support, such as those examined in this study. Research studies with strong methodological designs and measurement, examining factors within multiple ecological levels related to IPV, will more readily ascertain the important contributing factors. For example, future studies should include indicators of community violence in addition to the perception of community violence. Also, future ecological studies should model IPV using measures of self-reported IPV and official reports, such as domestic violence calls, within a neighborhood to discern potential differences in their relation to neighborhood-level variables. As the field progresses, it is imperative that research begin to delineate the underling mechanisms characterizing the relation between concentrated disadvantage and IPV. For example, exploratory, qualitative methods may serve as a useful tool to capture the social and interpersonal processes heightening the risk of IPV among couples within the home and their respective neighborhoods.

The results of this study indicate that female to male partner violence is a robust predictor of women's IPV victimization. While batterer programming has historically rejected dyadic work, i.e., working with both partners, this study and recent evidence (Gondolf, 2012) suggests that incorporating programming directed at behaviors for both partners may lend itself towards a more successful model. Assuredly, practitioners and researchers must work together to better understand and address the complexities of IPV between partners. Over and above individual-level factors, concentrated disadvantage emerged as a robust predictor of IPV. To begin addressing the negative impacts of concentrated disadvantage on women's IPV victimization, policy-makers and community stakeholders should invest in community economic development strategies to revitalize the economic, physical, and social infrastructures and networks in low-income neighborhoods (for example, see Sofier, McNeely, Costa, & Pickering-Bernheim, 2014).

Employing a community-embedded approach, practitioners working within disadvantaged communities should engage with community members to develop and implement strategies, ensuring sustainability and effectiveness for all those involved.

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Table 3.1.

Descriptive Statistics

	M/%	SD	Min	Max
Dependent Variable				
Psychological Aggression	1.13	0.22	1.00	2.60
Physical or Sexual Violence	1.02	0.12	1.00	2.60
Independent Variable, Level-One				
Age	33.22	6.80	20.00	53.00
Alcohol use				
Abstainer/Moderate Drinker	72.20			
Binge Drinker	13.50			
Heavy Drinker	14.30			
Drug use				
No	91.40			
Education				
>High School	33.80			
High School or Equiv.	34.00			
Some college or technical school	20.70			
College or Graduate Degree	11.60			
Employment				
Not Currently Working	17.30			
Level of Impulsivity	1.92	0.64	1.00	4.00
F-M Psychological aggression	1.20	0.30	1.00	2.83
F-M Physical or Sexual violence	1.04	0.16	1.00	2.40
Independent Variable, Level-Two				
Social Dis/Organization				
Concentrated disadvantage	.172	.123	0.01	0.49
Immigrant concentration	.206	.186	0.01	0.64
Percent renter-occupied housing	0.44	0.23	0.02	1.00
Collective Efficacy				
Social cohesion	3.02	0.40	1.60	4.00
Informal social control	3.38	0.45	1.20	4.00
Social Capital				
Average social network density	2.67	0.76	1.00	5.00
Average community based participation	0.30	0.30	0.00	1.00
Social Environment				
Average community violence	0.16	0.24	0.00	1.00

Notes 1 Descriptive statistics are based on 474 individuals in 186 census tracts

2 All independent level-one and level-2 variables are based on father's report or census data

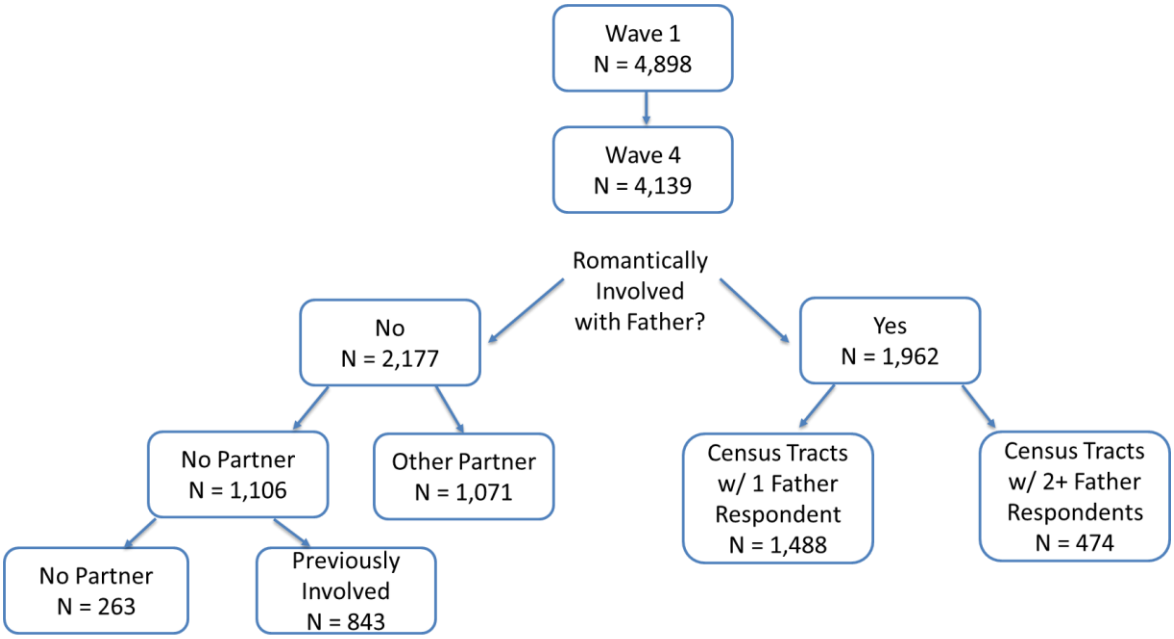
Table 3.2.

Random Intercept Model Predicting Continuous Outcome 'Total Violence'

	Model 1			Model 2			Model 3		
	B	SE		*B*	SE		*B*	SE	
Intercept	49.7586	0.4454	***	35.17	4.66	***	39.05	7.20	***
Independent variables, Level-one									
Age				-0.03	0.07		-0.04	0.08	
Alcohol use (Ref: Heavy Drinker)									
Abstainer/Moderate Drinker				-1.77	1.45		-1.85	1.51	
Binge Drinker				0.08	1.78		-0.08	1.82	
Drug use (Ref: Yes)									
No				-3.12	1.79	*	-3.20	1.82	
Education (Ref: College graduate)									
Less than high school				1.14	1.61		0.37	1.75	
High school equivalent				1.07	1.54		0.02	1.66	
Some college				0.11	1.60		-0.21	1.65	
Employment (Ref: Yes)									
No				0.51	1.34		0.25	1.46	
Level of Impulsivity				1.15	0.78		1.05	0.78	
Female to male partner violence				0.32	0.05	***	0.31	0.06	***
Independent Variable, Level-Two									
Economic Capital									
Concentrated disadvantage							1.69	0.77	***
Immigrant concentration							0.68	0.53	
Percent renter-occupied housing							-5.08	2.92	**
Collective Efficacy									
Social cohesion							-0.05	1.51	
Informal social control							0.37	1.12	
Social Capital									
Average social network density							-0.11	0.64	
Average community based participation							-1.11	1.57	
Social Environment									
Average community violence							-0.88	2.41	
	Model 1			Model 2			Model 3		
Effect Size (ƒ2)				0.20			0.21		
Intra-Class Correlation	0.07			0.00			0.00		
-2LL	2929.9			1758.6			1734.8		

Note. Model 1 = Unconditional Model, Model 2 = Random Intercept, Level-1 Predictors, Model 3 = Random Intercept, Level-1 and Level-2 Predictors., *p<.10, **p<.05, ***p<.01

Figure 3. Sample Attrition Flow Chart



CHAPTER 4

How Neighborhoods Influence Intimate Partner Violence: A Qualitative Inquiry with Men in Batterer Intervention Programs

Introduction

As I sat among the eight men, I recognized that the camaraderie established from the batterer intervention program group allowed us all to settle into the focus group discussion quickly. The group consisted of outspoken and quiet members. Jamal[3], a 25-year old Black man spoke infrequently but with a quiet confidence. As the discussion turned to witnessing or experiencing violence, many accounts were offered. Jamal's impassive tone while describing his entrée to community violence captured the sentiment of most men in the study.

> Well, part of my life, I grew up on [street name], and I used to wonder what the noise was next door every day, until I found out [when I was] older, you know, like 12 or 13, like people was actually getting stabbed and shot at in the basement next door.

His account struck me because he seemed vulnerable in the wake of this memory, in contrast to many of the other men in the focus group who presented with hardened exteriors even when recounting difficult memories. Like most men in the study, Jamal's concept of childhood ended at a very early age – 12 or 13 – after which he had to "grow up quickly." Disruption at such a young age, during which time critical working models are reinforced, created significant deficits in the establishment of trust and safety for Jamal and the other men in the study. Thrust into "adulthood" at young ages, boys were often "raised by the streets" where they learned to fight in order to preserve their physical and mental integrity.

> Andre: And growing up as a kid [in my neighborhood], you got to see a lot of things done, and you got other kids that learn from that behavior that's around them. So, it's like they become bullies and try and pick on you. And, of course, not wanting to be someone that's . . . weak in the neighborhood, you learn to adapt and you get a thick skin, where you learn to fight back and try to make out as best as you can.

[3] All participant names used in this manuscript are pseudonyms.

"Learning to fight" exposed men to more severe forms of violent perpetration and victimization, leading to chaotic and exhausting existences before reaching young adulthood. Growing up in housing projects in Chicago, Preston described how this process unfolded.

> So it was just like, you know, after being shot at, being shot, seeing people beat, seeing people dead on the street, it was like, you know what, it's time for me to leave. At the age of 20, I came to Milwaukee.

Unsurprisingly, these men struggle to establish and maintain healthy romantic relationships. Stemming from community and home life environments in which one's fight for survival is constant, men enter partnerships with unresolved memories of violence, i.e., in all likelihood trauma. Easily triggered, conflictual interactions can result in men's use of violence against their partners.

Study Purpose

Previous literature has established that a relation exists between neighborhoods and intimate partner violence (IPV), yet very little is known about *how* neighborhoods affect the occurrence of IPV. Moreover, comparatively little research has explored IPV from men's perspective, instead viewing it primarily from women-as-victims perspective (e.g., West, 2004). Women-as-victims provide valuable viewpoints; however, more research is needed to explore how IPV unfolds from the perspective of men-as-perpetrators to gain a more comprehensive understanding of this phenomenon. Identifying potential mechanisms driving the relation between neighborhoods and IPV, as understood by men's lived experiences, will generate future confirmatory research and highlight targets of individual- and community-level interventions.

As such, this paper addresses the following research question: *What are potential mechanisms underlying the relation between neighborhoods and IPV?* This paper will provide rich, exploratory explanations of how neighborhoods influence men's use of violence against

their partners, as expressed through men's lived experience. Bridging the adverse childhood experiences (ACEs) framework to the IPV field, this research elucidates men's experience of severe and persistent forms of adversity and even trauma in childhood and adolescence, decimating essential foundations of trust and safety and, subsequently, enhancing the risk of violent perpetration against their partners. Also, this work contributes to the field's limited understanding of underlying mechanisms driving the relation between neighborhoods and IPV; specifically, this work will demonstrate how structural forces within neighborhoods can protect against or increase the risk of re-traumatization during middle-childhood and adolescence. Finally, results from this analysis illuminate key systemic or macro forces in society that contributed to a relatively recent proliferation of island-neighborhoods, i.e., a risk-laden environment, and how this shift in neighborhood structure has key practice implications.

Literature Review

Neighborhoods and IPV

Spanning the last two decades, researchers have examined the relation between neighborhoods and IPV. The majority of studies report that neighborhoods characterized by high levels of concentrated disadvantage (i.e., collectively low income and scarce vocational opportunities) have higher rates of IPV compared to neighborhoods characterized by low levels of concentrated disadvantage (e.g., Benson et al., 2004; Cunradi, Caetano, Clark, & Schafer, 2000; Fox & Benson, 2006; Miles-Doan, 1997; Van Wyk et al., 2003). For example, Wright and Benson (2011) analyzed a sample of 4,640 adult females across 80 Chicago neighborhood clusters and found that IPV was more likely to occur (OR = 1.13, CI 95% [1.04, 1.22]) in neighborhood's characterized by poverty and disadvantage compared to middle-class or affluent neighborhoods.

Congruent with Sampson and Wilson's (1995) rationale of 'concentration effects,' several researchers found the relation between neighborhood disadvantage and IPV to be non-linear (Benson et al., 2003; O'Campo et al., 1995); that is, rates of IPV were disproportionately higher for individuals living in the *most* distressed neighborhoods. For example, when grouping census tracts by disadvantage in quartiles, Benson and colleagues (2003) found that census tracts in the most disadvantaged quartile had nearly double the rate of IPV compared to all other quartiles. Although contradictory findings have emerged (e.g., Browning, 2002; Cunradi, Todd, Mair, & Remer, 2013; Jain et al., 2010), the critical mass of studies indicates that neighborhoods, particularly those characterized by concentrated disadvantage, have an effect on IPV. However, the question of how neighborhood characteristics relate to IPV remains unanswered.

Potential Underlying Mechanisms linking Neighborhoods and IPV

Some researchers addressing potential underlying mechanisms have uncovered important elements related to this phenomenon including community violence and social and physical characteristics of neighborhoods. For example, Reed and colleagues (2008) reported that involvement in gangs and community violence were critical experiences in the life trajectories of young men serving in batterer intervention programs (BIP). Additionally, when considering men's experience of IPV perpetration, a significant relation was found when measuring perceived and actual neighborhood violence (Reed, 2009). Specifically, African American men who resided in high-crime neighborhoods and were involved in street violence in the last six months (OR = 3.0, CI = 1.9-4.6), were ever involved with gangs (OR = 2.0, 95% CI = 1.3-3.2), perceived that violence occurred in their neighborhood (OR = 3.1, 95% CI = 1.2 – 7.6), and perceived the need to fight for survival in the neighborhood (OR = 2.0, 95% CI = 1.0 – 4.0) were more likely to report IPV perpetration (Reed et al., 2009).

Concerning social and physical processes that result in IPV, one qualitative study conducted primarily with African American women residing in low-income Baltimore neighborhoods found that social disorder (e.g., access to drugs, public drunkenness) was rated moderately to highly relevant to IPV perpetration. Conversely, physical disorder (e.g., abandoned buildings, garbage) was perceived to have low relevance to IPV perpetration (O'Campo et al., 2005). Nevertheless, this study focused on women's perceptions of how neighborhood characteristics related to men's use of IPV, rather than men's perceptions.

Several relatively recently published studies (e.g., Cunradi, 2009; 2010; Livingston, 2010; Snowden, 2015) have dug further into the effects of neighborhood physical characteristics on IPV. For example, findings from one study showed that the presence of off-premise alcohol outlets, such as liquor stores or corner stores, in a neighborhood increased IPV-related crime reports by 3% and IPV-related police calls by 4% (Cunradi, Mair, Ponicki, & Remer, 2011). Purchasing liquor at sites without guardians (i.e., bartenders or servers) enhances the risk of intoxication, after which individuals return home with lowered inhibitions and, ultimately, increases the likelihood of domestic disputes.

The link between social environments and health outcomes has been hypothesized for a long time. More recently, however, investigators have explored the link between neighborhoods and IPV. Yet, the gap between theoretically guided and applied research threatens the progress of the violence prevention field, including the neighborhood-level IPV research. Without theoretically grounded research examining the underlying mechanisms driving the relation between neighborhoods and IPV, better prevention and client care will remain elusive goals.

Certainly, research demonstrating that neighborhoods of concentrated disadvantage are at an increased risk for IPV yields important implications for stakeholders; nonetheless, without a

better understanding of what drives the association between concentrated disadvantage and IPV, practitioners and policy-makers are left with little actionable information. Research exploring underlying mechanisms can directly inform policy and practice, but due to a tenuous theoretical framework guiding the scholarship on neighborhood-level IPV effects (VanderEnde, Yount, Dynes, & Sibley, 2010), there is a paucity of studies investigating mechanisms of effect. As such, this study explored the processes by which neighborhoods influence male to female partner violence from the lived experiences of men in batterer intervention programs in order to uncover mechanisms in an exploratory fashion and build theory with an inductive approach.

Methods

Design

Grounded in a pragmatic epistemology and guided by an ecological theoretical lens, this study employed a grounded theory approach. Grounded theory addresses questions of systems or processes (Glaser & Strauss, 2009); specifically, it is utilized to identify characteristics, conditions, causes, antecedents, and consequences of events or responses (Charmaz, 2006). Aiming to discover "mid-range" theories, researchers utilizing grounded theory cycle between data collection and analysis from which coding builds a parsimonious conceptual model (Padgett, 2008). Although researchers may use "sensitizing concepts" from previous literature or theories, grounded theory is in essence an inductive method. This study aimed to unpack systemic causes and neighborhood conditions related to IPV and to identify potential mechanisms by which neighborhoods influence men's use of partner violence. Because this study's research question called for a methodology that can unfold the process by which neighborhoods influence individual-level behavior, namely men's use of IPV, grounded theory was considered the most appropriate methodology to address the research question.

In focus groups, i.e., an interview with a group of people sharing common characteristics, the researcher aims to facilitate a discussion among participants to understand their meaning and interpretations of a topic (Liamputtong, 2011). Due to a number of advantages, focus groups were employed in this study. First, the sense of belonging among group members can create a sense of cohesion and safety that may encourage individuals to more readily share information (Vaughn, Schumm, & Sinagub, 1996). Reinforcing a common sense of agency is particularly relevant for stigmatized groups, such as violent offenders, and may have been more difficult to achieve using other methods, such as individual interviews (Mkandawire-Valhmu & Stevens, 2010). Additionally, the use of groups allowed for interactions and spontaneous comments that yielded important data, which may not otherwise have been possible in interviews (Butler, 1996). Finally, focus groups are an economical and efficient way to collect data, potentially increasing the overall number of participants in the study (Krueger & Casey, 2000).

Procedures

Existing batterer intervention programs (BIP) (n = 3) in Milwaukee were approached and invited to participate in the study. Two BIPs consented to the study, while the third BIP declined due to infrastructure changes. The two BIPs included in the study are prominent programs in Milwaukee and represent differing philosophical approaches and strategies. Including programs with divergent curriculums strengthened the study findings because differences among the participants, i.e., negative cases, could be more readily illuminated. Due to overlapping professional interests, relationships were established with each agency years before study initiation. Consequently, the BIP facilitators readily recommended the research study to their program participants, ultimately paving the way for me to quickly build trust and rapport with the study participants.

The focus group questions were piloted with two women (African American and White) and two men (African American and White), providing gender and racial lenses' from which to view and shape the questions. After acquiring weekly programming schedules from each agency, groups held at different times, e.g., weekend, weekday, evening, daytime, were selected to enhance diversity of the recruitment pool. Recruitment was conducted at the beginning of the BIP group meetings. Within each group, the first 8 men meeting study criteria (described below) who indicated interest were selected for the study. If more than 8 men were interested, a random number generator was used to select the participants.

Each focus group consisted of 4 to 8 men, lasted approximately 1.5 hours, and was facilitated by two researchers: the author/study PI along with a research assistant. Trained in doctoral level, qualitative methodologies within different academic disciplines, i.e., Social Welfare and Public Health, each researcher enhanced the data analysis process with her respective perspective via coding and theory emergence. The PI was responsible for facilitating the focus group discussion. The research assistant was responsible for distributing and collecting consent forms, processing incentive payments, and documenting dis/agreement among the focus group participants. Participants chose between a $30 gift card or one 'credit' towards program completion (upwards of 25 credits were required to successfully complete the program) for their incentive. The Institutional Review Board approved all study procedures and materials.

Sample

Five focus groups were completed with a criterion sample of 32 men at their respective agencies from October 2015 to January 2016. Eligible participants for this study included adult men (i.e., 18 years and older) currently participating in a BIP, who spoke fluent English. Women participating in the BIPs were excluded from the study. While research shows that women can

and do use violence against their partners (Straus, 2011), research suggests that women and men interact with and are affected by their neighborhood environments differently (O'Campo, 2005; Jain et al., 2010; Reed, 2009); thus, the current study focused exclusively on men. On average, men in the study were 35 years old, African American, had obtained a high school degree, were employed full or part time, had never been married, and had a history of incarceration (see Table 4.1). Men reporting 'Other' for race/ethnicity self-described as African-American/Moor and Serbian. Self-reported incarceration histories included charges for domestic violence, conduct disorder, drug distribution and possession, violent offences, and unpaid tickets.

Data Collection and Analysis

Grounded theory is premised upon simultaneous data collection and analysis; thus, these study components are presented together. Employing focus groups with grounded theory involves analyzing data one group at a time; the analysis of multiple groups ultimately served as a proxy for theoretical sampling (Charmaz, 2000). That is, constant comparison analysis was used to analyze the data in each focus group and guided subsequent focus group data collection, i.e., subsequent sampling occurred to assess the meaningfulness of and the refinement of emerging themes. This type of design has been termed "emergent-systematic focus group design" (Onwuegbuzie, Dickinson, & Leech, 2009).

Specifically, after the completion of each focus group, two researchers independently coded transcripts. Beginning with open coding (i.e., brief descriptions that are provisional, comparative, and concrete) we then moved to focused coding (i.e., using the most significant and/or frequent codes established during open coding to guide the development of categories) and axial coding (i.e., specifying the properties and dimensions of a category) in later transcripts (Charmaz, 2006; Padget, 2008). Upon completion of each coded transcript, we met to discuss the

resultant codes culminating in a codebook after the second focus group (MacQueen, McLellan, Kay, & Milstein, 1998). Upon each coding completion of subsequent focus group transcripts, the code book was expanded to reflect new codes and refined to eliminate or collapse codes. This process facilitated theoretical sampling; that is, focus group questions were eliminated after achieving or expanded to achieve saturation with research topics (Thornberg & Charmaz, 2014). Upon coding completion of each focus group, all transcripts were re-coded with the final codebook. Finally, theoretical coding (i.e., conceptualizing how the substantive codes relate to each other) was completed through a series of hypothesis testing using peer debriefing and reexamination of the data (Padgett, 2008).

Positionality & Rigor

Important insider-outsider distinctions frame the study findings. In this study, "insiders" were predominantly working-class men of color, with histories of violence against women, and I represented the "outsider" as a middle-class, highly educated, white woman. A chief concern of this distinction includes the unequal power relations between the researcher and the researched (Collet, 2008). As a researcher in this study, I held positions that were empowering and disempowering. To wit, my race and class bestowed undue power unto me, while the participants' gender bestowed undue power unto them. Moreover, the research focus, i.e., IPV, my position as a woman, and men's histories of violence against women added another layer of complexity.

The insider-outsider distinction in research unfolds in a couple distinct ways. First, communities subjected to historical trauma and internalized oppression, such as African American men in the United States, often mistrust researchers who are "members" of the subordinating group, i.e., white heterosexual men (Minkler, 2004). Additionally, these important

distinctions can lend themselves towards researcher-bias during multiple phases of research, such as the study conception (e.g., phenomenon), study design, (e.g., participants included, types of questions asked), data collection (e.g., how questions are posed in interviews, reactions to answers), and data analysis (e.g., interpretation of data through a privileged lens) (Rubin & Rubin, 2011). Although the unequal distribution of power cannot be "controlled" for in qualitative studies, steps can be taken to acknowledge power differentials, bridge researcher-participant differences, and enhance trustworthiness of the study findings.

My acknowledgement of positions of power during multiple phases of the study built important bridges between the "insiders" and myself. My active role in the community and long-term relationships with the BIPs built trust at the administrator-level of the participating agencies, which permitted entrance into the agencies. In meetings with agency staff (predominantly men of color) my positionality, intentions, and understanding of men was vetted, resulting in staff endorsements to potential participants. These endorsements created an important link between the men in the study and me. Before conducting focus groups, I piloted the questions with two men (African American and White) and two women (African American and White) from upper-, middle- and working-class backgrounds, in order to incorporate different racial, class, and gender lenses than my own. During data collection, I established credibility and legitimacy by acknowledging to men the positions of power I held, providing my rationale for working with men, and providing personal information (i.e., family background) that illuminated some shared experiences.

Multiple steps were taken during data collection and analysis to enhance trustworthiness. First, a second researcher assisted with data collection and analysis. As a woman of color, the second researcher provided a different lens from which to interpret the data. Debriefing with the

second researcher after each focus group, coding each transcript separately, reaching consensus after each coded transcript, and identifying areas of saturation and further study enhanced the credibility of data collection and analysis. Second, member checking was used as a strategy in focus groups to ensure accurate representation of concepts (Guba & Lincoln, 1989). Third, a codebook was created, enhancing auditability by creating a trail of the codes, concepts, and categories stemming from the data (Guba & Lincoln, 1989). Fourth, data was triangulated via the inclusion of important references made by agency staff regarding the life experiences of men in their programs, e.g., introductions to local gang leaders, materials on dialectical exchanges with oppressed groups, and historical perspectives. Fifth, negative cases were analyzed prompting impartial attention to varying viewpoints (Padgett, 2008). Lastly, in the final stages of analysis, peer debriefing was completed with the preliminary theory emanating from the data.

Results

Three intersecting core categories emerged from focused and axial coding, representing processes by which neighborhoods affect men's use of IPV. These included ACEs (Adverse Childhood Events) and Trauma, i.e., deeply distressing experiences that overwhelm one's sense of safety and control, Structural Forces, i.e., positive and negative elements that affect the social processes within neighborhoods, and Systemic Forces, i.e., macro-level influences on the physical and social makeup of neighborhoods. Further analysis, i.e., theoretical coding, illuminated how these core categories interact with each other and their sequence or procedure of events.

Below, a preliminary theory grounded in data of men's lived experiences depicts a chronological narrative showing that men experienced ACEs and trauma via unstable home lives and later experienced ACEs and trauma on the streets. Adverse and traumatic events in early life

challenged basic foundations of safety and trust needed for intimate relationships in later life. Moreover, the types of neighborhoods men lived in enhanced or diminished further risk of re-traumatization and, subsequently, the risk of IPV. Specifically, neighborhoods with positive and negative Structural Forces were coined "villages" by men in the study. Neighborhoods with solely negative Structural Forces were labeled "islands," a term I coined based on men's descriptions. Finally, Systemic Forces fueled the proliferation of island-neighborhoods, i.e., risk-laden environments.

ACEs and Trauma

Unstable home life. Beginning in childhood, living in an unstable home life served as the catalyst to grow up quickly. ACEs oft characterized an unstable home life, particularly absent fathers and violence in the home. The deep hurt and sense of abandonment felt by men without fathers left lasting impressions on their self-worth. Bemused, Devon described, "You know, just like me when I was growing up. . . Like, I ain't got a father. So I think, what [did] I mess up? Because I grew up feeling that way." Absent fathers disrupted critical developmental processes that normally contribute to a foundation of safety, trust, and personal worth in young men (McLanahan & Teitler, 1999), ultimately precipitating the onset of adulthood.

> Charles: I had male figures, but I'm thinking really like it's very different than having your own father. Like my mother had three men outside of my father from the time I was eight until now, and they was good people to a, you know, certain extent, but they wasn't my father, you know. So I always had a little resentment for them. . . it made me leave [home] early, and I think it made me worse, no, it didn't make me better, because I'm 15, but I'm making grown man decisions. But, I'm not a grown man, and I've never stayed [home] long enough to stay stable or still long enough to get everything. I got some of the things. And when I thought I was grown, I ran with it.

Exposure to violence in the home also contributed to an unstable home life. The types of violence exposure varied but included witnessing domestic or intimate partner violence as Winston describes, "uncles fighting uncles, I seen my mother get jumped on a lot coming up,

you know what I'm saying, my aunts, all that, man." Direct victimization in the form of physical or emotional abuse was also commonly reported among study participants. The severity of violence exposure among the group of men was astonishing. Paul, a 23-year-old White man explained being abused, "my dad was real violent, fractured my spine when I was 12." Many men attributed the drug trade, substance use, and mental illness to their parents' use of violence against them and their siblings. As Paul later stated, "But a lot of that had to do with my dad being a meth dealer and pot dealer…very violent…he was a pretty bad guy, really."

As boys, several of the men perpetrated severe forms of violence, such as shooting or stabbing, in order to protect their mothers or other family members. Terrell stated:

> I had to stab my mother's boyfriend at 12 years old. He was violent, he was on crack, and he was trying to rob my mama and beat her up, and I had to help my mama out by being the oldest.

The varied forms and severity of violence exposure in the home can have detrimental effects on children because they are still forming internal working models during times of key neuronal development (van der Kolk, 2005). As children age into middle-childhood and adolescence, these maladaptive internal working models can manifest in other domains. That is, exposure to violence in childhood can hamper socio-emotional development in boys, contributing to delinquent and criminal behavior in young adulthood (e.g., Topitzes, Mersky, & Reynolds, 2011). Jamal, a 25-year-old Black man, explained the long-term effects, i.e., violent perpetration resulting in court mandated batterer intervention programming, of being physically abused by his father.

> I was beaten my whole life, you know. And it's like…that's where my beef and why I'm in this [batterer intervention program] now…just trying to get over the effects of being beaten so many times. I'm trying to understand like, damn, why I get beat?

In Part, exposure to ACEs propelled young men to exit the home early or to enter adult domains prematurely. Although not considered an ACE, being raised by a single mother also contributed to these men turning to the streets. Many men respected the strength and dedication exhibited by their mothers; however, men also indicated that single mothers were often "not enough." Due to the limited resources of these single mothers, there was a lack of oversight to steer boys away from negative influences or introduce them to positive outlets. Andre, a 40-year-old Black man, explained,

> My mother was a hard worker. Raising three boys, there was times when she would work three different jobs. And she raised us very well, but it was at our own discretion to go and do the things that we seen glorified throughout the neighborhood. . .

Due to the lack of resources within a single-parent home, some young men either wanted to or were expected to contribute to the household and, as a result, turned to the streets at relatively young ages. Terrell explained,

> When you don't have nothing, your mother can't provide what you need or what you want, so you need some new shoes for school or you need, you know, anything, period, some clothes or whatnot, and you got to reach out to other people to try to get it. Some people rob, some people hustle. My thing was hustling. And that's when I became a man, you know, like 15 years old where I got to help out with the house and my little sister at the house to make ends meet.

Unstable home lives comprised of a multitude of positive and negative factors. However, compensatory effects such as those from positive parental figures, e.g., single mothers, grandmothers, or the rare report of positive two-parent households, did not appear to offset the negative experiences. As a result of an unstable home life, men sought guidance, purpose, and financial stability by looking to the streets.

> Preston: Like I said, I grew up real early, because my father deceased when I was like 13, so I had to take care of my little sisters and my brothers and everything. And my mother was on drugs, really, basically not at the house a lot, so I had to be the father. . .

John: And the big brother.

Preston: . . . and me seeing [drug dealers] doing that, it made me go out there and do it. You know, so I started selling drugs to take care of my sisters and brothers, you know, and that's what I knew. Now that lifestyle is stuck in me, you know. I can't get it out. . .

Looking to the streets. Many men explained a lack of positive or "right" male role models in their lives and instead "chose the streets" and "looked up to the dope boy." Searching for structure, Alan explained ". . . because my father wasn't really around. Like, you know, me and my two other brothers got separate fathers. So it's like, they dads may have been around, but my dad was never around. So I always looked to the streets to raise me." While some men described positive male role models in their lives, including fathers and uncles, the tantalizing dream of what the street had to offer – money, prestige, power – seemed to outweigh the influence of male role models or other protective factors. Others described entering the drug trade or joining a gang as a birthright.

Marvin: You in this neighborhood, you either riding with that neighborhood or you against it. So when I was growing up, it was like basically I was birthed into it, you know what I'm saying, my organization. So all the guys that I used to see, them the guys that I wanted to be like. [You think] Oh, he got all this money.

Carlos: He got the power.

In part, neighborhoods influenced men's use of violence through socially learned behavior, extending the theory of intergenerational transmission of violence which suggests that men learn methods of violence from witnessing abuse in the home (Bandura, 1971; Foshee, Bauman, & Linder, 1999). The street environment also provided unhealthy models for young men to emulate. Winston who started gangbanging at 12 years old explained, " . . .we raised up to be womanizers. We don't know how to treat a woman, we don't know how to have a healthy

relationship. And that's part of the issue too, because I grew up around pimps, dealers, killers . . . you know how them guys treat women, and that's what you see. That's all you know."

Neighborhoods also influenced men's use of violence against their partners via trauma. Threats to safety were omnipresent, via community violence, gangs, prostitution, drug trade, and personal victimization and perpetration. As a result, boys' sense of safety was continuously threatened. For example, walking in certain areas, as Sean described, "I walked down the wrong alley or something. I don't know. But they just started shooting at me" or standing at the bus stop as Marcel described, "I was scared for my life. Man, it was hectic. Over there they ain't playing. And, you see . . . down at the bus stop, they might snatch your mama purse. You feel me?" Men grew up in environments in which you constantly had to "watch your back." Edward explained, "you learn quick growing up in the hood . . . or you're going to be a victim. And that's what you try to do is keep your head above water and not be a victim to anything." The 'rules' of the street and the persistent need to protect oneself from victimization contributed to diminished social-emotional development and enhanced hyper-vigilance in men, leaving them ill-equipped to handle complex emotional interactions with intimate partners that may challenge their sense of safety.

Due to the dangers of the streets, men bare the marks of ACEs and trauma in their relationships through two primary mechanisms. First, early exposure to street life contributed largely to men experiencing complex trauma, which may have disrupted key developmental milestones during childhood. Complex trauma is "multiple, chronic, and prolonged developmentally adverse traumatic events most often of an interpersonal nature and early-life onset" (van der Kolk, 2005, p. 402). As a result, men's sense of trust and safety with others was precarious at best. Without a sense of safety, the ability to master basic skillsets and master

developmentally complex domains, such as those invoked in a romantic relationship, proves difficult (Cicchetti & Valentino, 2006). As men aged, it appeared that they entered into intimate partnerships with little trust for others. Dwayne explained how the unresolved trauma from his childhood impacts his relationships today, "I learned a lot the hard way. . . and it's stick in my head. You know, and that's where I'll tell you, no trusting [anyone] because of my childhood."

Second, perceptual priming has trained their brains to constantly detect threat in any environment. Seen in trauma survivors, perceptual priming is the process by which current stimuli are paired with previous trauma related stimuli, often times prompting post-traumatic stress symptoms (Sundermann, Hauschildt, & Ehlers, 2013). A group of men discuss how their neighborhood's primed or cued them to detect threat when outside of their homes.

> Charlie: The term we came up with was running the gauntlet . . . you had to be able to duck, move, and slide to the left, you had to be able to think three moves ahead. I see this guy coming over here. What's on his mind? What he up to?
>
> Marcel: Or don't let nobody walk behind you. Someone walk up behind me, I'm like [let them walk past].
>
> Charlie: You have to know what you're around.

Detecting threat in dangerous environments is critical for one's survival; yet, this mechanism can interrupt emotional regulation development and lead to long-term dysregulated behavioral responses in stressful environments and an inability to discriminate between dangerous and safe environments (Shonkoff et al., 2012). That is, when men's brains have been primed to perceive threat in any and all environments, conflictual interactions with their others, such as intimate partners, can serve as triggers and lead to violent or overtly aggressive responses. Reggie describes this,

> I can't sit up here and say I'm a better man in some areas, because I still got residue from living that life that I used to live. You know what I mean? So, it's like shooting dice. I still shoot dice with some of my behaviors and my attitude and the way I think. Like,

> right now, I'm being civil, you know, and when I leave here, I could be out there civil and woo, woo. But, some residue will pop up, and I'll be like, oh, man, I got a flashback, you know, and then I get jiggy with it. . . I could go back to being immature, me making 15-year-old decisions when I'm in my 40's. You know what I'm saying? So I revert back to being 17, you know, my thinking will go back to 17. . . and I will act on those behaviors of when I was 16 or 17 or 18.

The "residue" Reggie refers to is the unresolved trauma from adverse or traumatic events experienced within the home or neighborhood, i.e., on the streets. These traumatic experiences have lasting effects on men's lives and may pervade other interpersonal domains, such as intimate partnerships. Unresolved trauma ultimately hinders their ability to successfully develop and maintain healthy behaviors with their partners.

Structural Forces

Men in the study primarily grew up in inner cities of major metropolises. While the drug trade, gangs, and a certain level of community violence was present in all inner city neighborhoods, a distinction emerged in the types of neighborhoods, particularly those that were villages and those that were islands. Villages, characteristic of positive and negative structural forces, reduced the risk of trauma exposure. Islands, characteristic of solely negative structural forces, enhanced risk of trauma exposure.

Villages. Villages, an in vivo code, are neighborhoods made up of a diverse body of individuals, often described as "having everything" such as working people, drug traffickers, two-parent households, and single-parent households.

> Terrell: It was a mixture of everything. Like you could have a family, like a mama and daddy in that house, then grandma raising the kids at this house, then there's a nosy lady across the street, you know. Then there's grandma raising her grandson.
>
> David: Everybody knew everybody in the neighborhood.
>
> Terrell: Right. It was like mixed, but everybody knew everybody.

In villages, there was "participation" meaning that individuals in the neighborhood "looked out for each other." Christopher, a 32-year old Black man who grew up in the inner-city explained the physical characteristics, "where we stayed, we had a store on the corner, church right across, right on the next block" and the social characteristics of his neighborhood, namely social cohesion (Sampson, Raudenbush, & Earls, 1997), "and everybody in the neighborhood just kind of was like family, they all stuck together." Within these neighborhoods, the village raised the children. In other words, children were parented through a collective effort of all those residing in the neighborhood and this social order was accepted by residents throughout the neighborhood. James described his experience in a village, "Well, they, everybody in our community, they watch everybody child. If you did something [wrong], you getting your ass whooped right then and there." Reflecting Sampson's (1997) concept of informal social control, villages managed conflict within the neighborhood using informal mechanisms. For example, men described the critical role of the Old Heads, also known as working people or responsible people, in the neighborhood in monitoring the interactions of fellow residents.

> Wallace: I've been in situations where the old heads would come out and be like, no, no, let them fight, don't call the police. Let them fight, get it over with, and release they feelings, you know, and it would just be that.
>
> Laura: So would they let that happen every time?
>
> Telly: It depends on what the situation is. Like if, when I was younger, like we used to fight over crazy stuff, like this dude hit me over a piece of candy one time. And my cousin, my older cousin was like, dude, you going to let him hit you? I'm like, no, so I went over and fought the dude. He called his whole family, and all the old people like, just let them fight, you know, it's they situation, we ain't going to have no big family fight over no candy. Just let them fight, get it over with. And that's what it was.
>
> Laura: So there was almost like a kind of monitoring – people would keep an eye on the fight?
>
> Telly: Yea, like, yeah, they would watch us. . .

Wallace: Or if you fall to the ground, wasn't no kicking, there was rules to the fight.

Terrell: No jumping, all that.

Beyond Old Heads, there were multiple informal mechanisms creating and maintaining structure in villages, including men who hung out on the corner or "street people," gang members, and drug dealers. Each of these groups had an investment in keeping the neighborhood relatively safe and neighborhood residents content because, as Darin describes, "if they trying to sell drugs or do they gang activities, they don't need the police over there, so they going to keep everything good. They going to make sure everybody is okay."

Notably, these informal mechanisms only extended to intimate partner violence in the most severe situations. Incidents that were not considered severe, such as arguing, pushing, or slapping, were monitored from a distance by residents, but were not directly intervened upon. In more severe cases, individuals in the village may have indirectly intervened in domestic disputes by anonymously calling the police or directly by stopping a physical altercation.

> Terrell: I mean, if it come down to a woman getting beat up, I mean, we didn't never like to get in people business, but when it come to women, yeah, we will, we'll step in on that.
>
> David: Yea.
>
> Terrell: . . . you know, we don't want to see no woman getting beat up like that, especially man handled like a man. I mean, that's how, that's what we came from, you know what I'm saying?

Islands. Other men described growing up in neighborhoods characterized as islands, a term I coined based on men's descriptions. Islands are places in which individuals were very isolated. Individuals living in neighborhoods characterized as islands would often "keep to themselves" or would stay inside their homes at all times due to fear of others in the

neighborhood. Winston succinctly described his neighborhood as "a lot of single families, a lot of abandoned properties, a lot of run down properties, a lot of drug dealing, a lot of violence, and gangs." There were similar elements across villages and islands, such as drug dealing and gangs, however, there were also a number of differences. Islands did not appear to have any or enough positive structural forces, such as Old Heads or strong matriarchal figures, to balance the negative forms of structure, such as gangs or drug dealers. Because there was a lack of positive structural forces within the neighborhood, there were no checks and balances for the negative forces within the neighborhood.

> Marcel: I grew up in a neighborhood that liked shooting. [There was] a lot of drug activity, a lot of violence, a lot of no participation.
>
> Laura: What does that mean, no participation?
>
> Marcel**:** That means that nobody cooperate. Dangerous.

Due to the insufficient power or complete absence of positive structural forces to counter negative structural forces within the neighborhood, islands lacked a sense of community and belonging among neighborhood residents. Instead, a selfish mentality was characteristic of islands. Terrell, a 30-year old Black man, shared his experience when he moved to an island.

> I was a gangster at the time and all that. And [in my neighborhood], it was always about self, who got more than who. I got more than you, or my car bigger than yours, or I got more women than you, you know, or they're not sticking together. They just want to be a hog about everything.

Living in island neighborhoods, men described feeling persistent threat, always being alert or hyper vigilant, and constantly living with fear. Living in such conditions contributed towards the social isolation of residents. Additionally, these conditions contributed to the perceptual priming of men's brains, an unremitting detection of potential threat.

> Tom: That's why people don't get involved either.

John: People don't want to get shot at.

James: . . . stay in the house.

Anthony: These gangs that go around, [will] turn around and kick an old lady.

Carlos: You just never know what's going on, so you always like prepared for something every time you walking outside or walking anywhere.

Within islands, there was an apparent abandon of social order. While community violence existed across villages and islands, residents living within villages had agreed upon social norms while actions of residents within islands was far more chaotic. While living in an island neighborhood Derrick described the abandon for socially accepted rules,

> I watched a man with his kids pull up, got out of their car and let loose on [my neighbor's] house. It was broad fucking daylight. Broad daylight, you know. I don't know what the problem was, what the beef was but the idea was this, it was broad daylight. You know, it wasn't dark. They didn't drive by, they just stood there and let loose. Man, I was . . . tell my kids get in the house and shit. They was crazy. . .

Growing up in an unstable home and in an island neighborhood can change the physiological structures of men's brains (Shonkoff et al., 2012). Growing up or currently living in these types of environments can condition men to detect potential threats and respond to such threats using survival mechanisms. With shaky foundations and brains cued to identify threats, men may be easily triggered during interactions with intimate partners that elicit emotions of fear, anger, disappointment, or sadness, and, thus, increase the risk of IPV.

Systemic Forces

Study participants described growing up in neighborhoods characteristic of both villages and islands; however, men explained that villages are disappearing and islands are proliferating in the inner city, today. Describing his observation of how neighborhoods shifted from villages to islands vis-à-vis family structure, Wallace stated,

> Wallace: It's kind of like this. . . back then, it was just mothers without a father, because when the father left the house, it was the females in the neighborhood - they all helped raise that child. Nowadays, you got actual real, live single females that's out here taking care of the kids.
>
> Laura: I want to understand that better. Can you give an example?
>
> Wallace: Well, the father, if that father decided to leave, then the females, other females or uncles that was around, they all helped raise [that child]. . . But nowadays it's just that kid and that mom or that kid by himself. . .

Historically, several pivotal systemic movements occurred that contributed to the proliferation of island-neighborhoods. First, the declaration of the War on Drugs in 1971 and the crack/cocaine epidemic led to mass incarceration of Black men (Alexander, 2012). Men described that the absence of fathers and father-figures due to mass incarceration contributed substantially to the proliferation of island-neighborhoods. Charles, a 35-year old Black man, described this effect when discussing historical trends such as mass incarceration and the crack/cocaine epidemic.

> Charles: That's because like it's the absentee of the father. Back in the day, you had grandfathers and big dads…or uncles who was there, you know. Like if your father [wasn't there], one of your uncles, there's somebody who was there to give you some type of discipline. Know what I'm saying? Get your first haircut. Teach you how to shave. You know what I mean? Teach you how to be a man, how to be respectful. It was there, you know. . . but now it done escaped, it done escape me like absentee fathers, our generation, the crack generation when we was coming up, a lot of us went to jail. We wasn't there, so the generation that's growing up now, they're raised by women without fathers.

Black men growing up in the 1980's, the "crack generation," were and continue to be incarcerated at alarmingly high rates (Alexander, 2012). While in prison, men experienced severe forms of violence. Winston shared his experience in a federal prison,

> That's where I learned the worst violence in my life, a dude almost cut my head off when I was in jail. Gave me a buck fifty, cut me with a razor. Look at the scars.

Men entering the revolving door of the prison system, in which one's personal safety was constantly threatened, were primed to detect danger and respond to threat with physical force or

threats. While a minority of men expressed that jail taught them responsibility and provided opportunity, most men shared the sentiment that although prison was eye-opening, it would never outweigh the harm caused to them in the process. The harm caused to men who served prison time may have carried forward into their relationships with women. Most men entered the prison system during adolescence, a formative period, which contributed to their interrupted development, decimating their sense of safety and trust with others. Subsequently, men who have traversed the prison system are easily triggered by confrontation.

After prison, scads of men returned to their neighborhoods to find little in the way of resources and employment due to desegregation and deindustrialization.

> Reggie: I'm not trying to defend the people that's been to jail or the criminal justice system or whatever. I'm not trying to defend us, because I believe that we all sort of strive for what we really want in life, no matter what it is. But here come the flipside. They put you there, but there's not enough resources. There are some resources out here, but there are not enough resources out here for people that's coming home from prison and people that's out here on probation, you know. It's a whole lot of people out here that doesn't have jobs. . . don't have places to stay. But you have agents that put pressure on you to do this. But a lot of cats, I mean, they're trying their hardest, but there's not, what else can a man do?

Deindustrialization, a process of social and economic change caused by the reduction of manufacturing and industry capital, in combination with the other systemic forces, contributed to the dwindling village-neighborhoods. In Milwaukee, the manufacturing industry was the primary source for unskilled and semi-skilled labor – a critical resource for undereducated Black men. However, the steep decline of manufacturing jobs changed access to gainful employment (Levine, 2007). Dwayne, a 50-year old Black man, describes how deindustrialization impacted his community,

> Back then it was easy to get a job here in Milwaukee. It was jobs everywhere. I mean, inner city. You didn't have to go way out to get no job. You could quit a job and go get another one. Factories, whatever kind of work. Now jobs is so far, you know. And they're

> putting them out there for a reason. . . and then the buses don't go out that far. Or they ship them overseas or whatever.

Occurring simultaneously, desegregation – the process of ending the separation between Black and White people in the United States – contributed towards the dwindling village-neighborhoods. Men spoke of how village-neighborhoods had everything – working people, old heads, strong matriarchs, gangs, and drug dealers. Villages benefited substantially from the diverse roles in the neighborhood, because it allowed for a check-and-balance among positive and negative structural forces; however, when desegregation occurred, Black families who were capable of leaving once-segregated neighborhoods did so, i.e., upward mobility. Nevertheless, this "black flight" from communities had detrimental effects on the village-neighborhoods because those who were unable to exit these areas were left behind, leading to generations entrenched in joblessness and illegitimate work (Levine, 2007) and social isolation (Wilson, 1987), concentrating disadvantage and leaving little room for social and economic capital building among residents.

While villages were transitioning into islands, the women's liberation movement was afoot, resulting in women entering the workforce. The women's liberation movement resulted in a shift in gender-roles within intimate partnerships. Arguably, women of color, particularly impoverished women of color, have always participated in the work force (Davis, 1983); nevertheless, from men's perspective there was a marked difference in identity between men and women in relationships after this movement.

> James: When I was coming up, women didn't have really the rights that they have today until women's lib came along. But my mother, she didn't have to work. She was at home. She was a stay-at-home mom. My dad did what he had to do, and he was the man, she was the woman. She could cook, clean, and stayed in the kitchen barefoot and pregnant.

Discussing the shift in gender roles, David explained that women today no longer possess their "feminine ways," in which they dedicated their lives to raising children. While another man expressed that men's gender roles have shifted to embrace fatherhood, ". . . it's kind of like, the males are stepping up because the females are stepping back."

Fatherhood was a strong sentiment shared by nearly all men in the study; however, when pressed to understand what fatherhood meant in terms of partnership with women there was dissent. David expressed the predominant feeling of men in the study, "I'm like, well, if I stuck my thing in this woman and I had this baby, it's not about her and our relationship, it's about that child that you brought in [to the world]." Often, relationships with women were characterized as adversarial. However, there were some men who identified as being a "family man" and loving their wives, although these men were in the minority.

Tied to the shifting gender roles, Terrell expressed that "now that women can do what men can do. . . [they're] just trying to be like a man", and as a result "[women] don't respect us no more as a man." Andre bolstered this notion, explaining that "a lot of [women] is going out here and just, they're giving up [on men]." To some extent, the shift in gender roles has confounded relationships between men and women and, in part, contributed to the shift away from village-neighborhoods in which the structure women brought, i.e., child-rearing, and men brought, i.e., earners, was more clearly defined and readily understood.

Discussion

Exploring the lived experiences of 32 men in BIPs using grounded theory yielded a preliminary theory explaining the relation between neighborhoods and IPV. During childhood, living in unstable homes propelled boys to seek guidance, purpose, and financial stability from the streets. Both within the home and on the streets, men were exposed to severe forms of

adversity and trauma during formative periods of their development, which hindered their development of healthy foundations of safety and trust. As they grew into adolescence, their neighborhoods further exposed them violence. Many men were incarcerated, interrupting critical developmental periods of their lives and exposing them to even more severe forms of violence. Men's violence exposure during adolescence, on the streets or in prison, reinforced hyper-vigilance and perceptual priming that, ultimately, increased the risk of violence in their romantic relationships.

Men who were raised in village-neighborhoods benefited from the checks-and-balances of positive (e.g., Old Heads) and negative (e.g., gangs) structural forces, which allowed for a certain sense of trust, stability, and order to be established within their neighborhoods. Although not exclusively, men coming from village-neighborhoods perpetrated less severe forms of violence and presented with a stronger inclination toward behavior change. However, men who grew up in island-neighborhoods, particularly those with the added risk of unstable home lives, established tenuous foundations. These men were more likely to perpetrate more severe violence against their partners and appeared less amenable to change. As men entered into young adulthood, they brought with them the varying degrees of unresolved trauma from their pasts which spilled over into intimate partnerships. Within intimate relationships, these men were primed to detect threats and, thus, were more easily triggered by conflict, increasing the likelihood that domestic disputes would escalate into violence. Today, islands have proliferated due to the convergence of several key systemic forces: the War on Drugs and mass incarceration, desegregation, deindustrialization, and the women's liberation movement. Furthermore, men living in islands, are under constant threat in their own neighborhoods, which triggers past, unresolved trauma that finds expression in their relationships, enhancing the likelihood of IPV.

Limitations

Several limitations must be considered in the context of these findings. First, only men in BIPs were included; perhaps including men without histories of violence, growing up in similar neighborhoods would have highlighted important differences. Moreover, the sample primarily consisted of African American men living in the inner cities of Midwestern states. A more geographically and racially diverse sample may have illuminated similarities and differences among men with histories of violence. Lastly, there are some disadvantages of using focus groups, including additional resources to assemble group meetings, less control over the data generated, and difficulty analyzing data due to multiple participants (Morgan, 1997). Nevertheless, precautions were taken to minimize the effects of such disadvantages and enable collection of rich data afforded by focus group contexts. For example, forging strong relationships with the agencies minimized the additional resources required to recruit and assemble participants for data collection. Moreover, two researchers attended each focus group to systematically record all types of data (i.e., verbal, non-verbal, assent/dissent among group members) and help manage participant needs (e.g., late arrivals or early departures).

Future Research

Confirmatory studies should examine the ecological (i.e., meso, exo, and macro) factors identified by men in BIPs, as they relate to neighborhoods and IPV. Important research has already begun with several of these factors, such as personal trauma (Ehrensaft et al., 2003), community trauma (Raghavan, Rajah, Gentile, Collado, & Kavanaugh, 2009), and elements of structural forces, i.e., collective efficacy (Jain, Buka, Subramanian, & Molnar, 2010). Future research should exploit the context of neighborhoods and examine how factors, such as systemic forces, influence men's use of IPV. Specifically, basic science studies should examine the

relation between trauma, i.e., ACEs, and IPV with community samples, and ACEs and BIP completion with clinical samples. Additionally, future studies should include victimization and perpetration via neighborhoods (e.g., gangs, community violence) when examining the cumulative and complex effects of trauma on men's use of IPV. Also, potential mediators, i.e., men's participation in the drug trade, and moderators, i.e., presentation of developmental trauma disorder, of the relation between neighborhoods and IPV should be examined. Lastly, examination of the social and physical processes of neighborhoods is the critical next step. For example, the level of isolation among residents (e.g., island-neighborhoods), the percent of men incarcerated or on probation (e.g., systemic forces), the number of businesses (i.e., deindustrialization), and the number of local institutions, such as churches or community centers (i.e., positive structure), in neighborhoods will begin to illuminate the underlying social and physical processes and their relations to IPV.

Implications for Practice

Trauma was a prominent theme in this study. Changes in men's behavior and intention in intimate relationships will remain superficial without addressing the root issues of men's violent behavior, namely childhood and adolescent trauma; ultimately, putting women at continued risk. BIPs would benefit from incorporating trauma-informed principles into curricula or treating unresolved trauma, such as absent fathers, child abuse or maltreatment, and witnessing or participating in community violence, with men in their programs, as has been done with women-focused mental health services (e.g., Covington, 2008). Additionally, engaging men recently released from prison or on probation to address unresolved trauma may alleviate future violence between partners. In the way of prevention, creating positive structural forces that engage boys in middle childhood may serve as a critical resource, particularly in areas of concentrated

disadvantage. Moreover, identifying human capital in a neighborhood and staffing these engagement efforts with community residents will create more impactful, sustainable change (Soifer, McNeely, Costa, & Pickering-Bernheim, 2014). Within island-neighborhoods, coalition building among residents, business owners, and gangs to influence social change of disenfranchised youth may support the development of village-neighborhoods. Finally, a primary prevention campaign targeting IPV intervention norms may enhance residents' collective influence on partner violence (for example, see Yoshihama, Ramakrishnan, Hammock, & Khaliq, 2012).

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Table 4.
Sample Characteristics (N = 32)

	Frequency (%)
Age *(M, SD)*	35 11.61
Race/Ethnicity	
African American/Black	21(67.7)
Caucasian/White	5 (16.1)
Hispanic/Latino	1 (3.2)
Asian/Pacific Islander	1 (3.2)
Other	2 (6.5)
Level of Education	
Less than HS	6 (19.4)
HS or Equivalent	19 (61.3)
Some College	1 (3.2)
Technical or Trade	2 (6.5)
Bachelor's Degree	1 (3.2)
Marital Status	
Single	22 (71.0)
Married or Domestic Partnership	7 (22.6)
Divorced	1 (3.2)
Separated	1 (3.2)
Employment Status	
Employed FT	12 (38.7)
Employed PT	9 (29.0)
Self Employed	3 (9.7)
Unemployed, but Looking	3 (9.7)
Student	1 (3.2)
Retired	1 (3.2)
Unable to Work	1 (3.2)
Previously Incarcerated	
Yes	21 (67.7)
No	9 (29.0)

Notes. HS = High School, FT = Full Time, PT = Part Time. Totals do not equal total sample (N = 32) due to missing data.

CHAPTER 5

Conclusion

Discussion

This dissertation contributed to ecological IPV research by (1) expanding the neighborhood predictors under study and (2) illuminating pathways by which neighborhood conditions converge with individual-level factors to enhance the risk of IPV by drawing from existing theoretical frameworks and building theory inductively. The following chapter will present a cohesive integration of the three studies presented in this dissertation. First, the major findings across each study will be presented in context of the other study findings. Second, study limitations will be highlighted and subsequent implications discussed. Finally, the implications and future directions based on study findings will be reviewed.

Expanding the Predictors under Study

Social Environment. The social environment consists of social characteristics of a neighborhood. Social disorder, a manifestation of social environments, emerged from the integrated conceptual model presented in Chapter 2 as an important neighborhood-level predictor related to IPV. Social disorder is the inability to regulate the behavior of others, such as drug dealing, public intoxication, and prostitution in neighborhoods (e.g., Van Wyk, Benson, Fox, & DeMaris, 2003). Findings from Chapter 4 corroborated the importance of the social environment. Specifically, gangs in neighborhoods or direct involvement with gangs were found to expose men to trauma directly and indirectly. Findings from Chapter 4 support previous literature highlighting exposure to community violence and participation in gangs as predictors of IPV perpetration by men (Reed et al., 2009) and extend this research by emphasizing the role of trauma. Additionally, findings from Chapter 4 indicated that drug trade in a neighborhood indirectly and directly exposed men to trauma by way of violent victimization and perpetration, adding to the relatively little research on this topic with men (e.g., HerrenKohl, Kosterman,

Mason, & Hawkins, 2007). Finally, community violence, a byproduct of the drug trade and gangs, was not supported in Chapter 3, but was supported in Chapter 4 as a potential predictor of IPV perpetration. Given the theoretical support detailed in Chapter 2 and empirical support found using qualitative methods with men in batterer intervention programs in Chapter 4, the discrepancy found in Chapter 3 is likely due to measurement error as the variable was limited to a single item.

Physical Environment. The physical environment is characterized as place of residence, crowding environments, and the 'built environment' such as buildings, physical spaces (e.g., vacant lots, green spaces), and transportation systems. Stemming from Chapter 2 in which an integrated conceptual model was presented, the physical environment is considered an important factor in the relation between neighborhoods and IPV. However, this assertion did not emerge as a predominant theme in Chapter 4. Elements of the physical environment were unable to be tested in the study presented in Chapter 3. Thus, no strong conclusions can yet be drawn.

Economic Capital. Economic capital is analogous to the socioeconomic status of a neighborhood. The integrated conceptual model presented in Chapter 2 includes economic capital as an important predictor of IPV, drawing from the Determinants of Health framework and Social Disorganization Theory (SDT). Most research has measured economic capital using elements of SDT, i.e., concentrated disadvantage, residential instability, and immigrant concentration (e.g., Browning, 2002; Wright & Benson, 2011). Nevertheless, previous empirical research reviewed in Chapter 2 supported some, but not all of these theorized relations.

Neighborhoods with high levels of concentrated disadvantage are characterized by collectively low income and scarce vocational opportunities (Sampson, Raudenbush, & Earls, 1997). Results from the integrative review (Chapter 2) indicated that this is the most robust

neighborhood-level predictor of IPV under study. Moreover, results from the study presented in Chapter 3 corroborated these findings, supporting theory (Sampson et al., 1997; Shaw & McKay, 1942) and previous research (e.g., Benson, Fox, DeMaris, & Van Wyk, 2003). Nevertheless, mediators of this relationship are understudied, particularly with male perpetrators (Jain, Buka, Subramanian, & Molnar, 2010). Several studies have found support for collective efficacy as a mediator of the relation between neighborhoods characterized by concentrated disadvantage and IPV (Chapter 2); however, results from the second study (Chapter 3) did not support previous research. Specifically, employing hierarchical linear modeling, collective efficacy did not emerge as a significant predictor of IPV with the Fragile Families dataset, a prerequisite for mediation. Results from the qualitative study (Chapter 4) illuminated the potential significance of trauma exposure within neighborhoods characterized by concentrated disadvantage, as trauma appeared to be very common among men raised in low-income, high crime neighborhoods. Trauma effects, in turn, appeared to influence intimate relationships, ultimately contributing to IPV. Although not confirmatory, results from Chapter 4 indicate that trauma may mediate the relation between neighborhoods characterized by concentrated disadvantage and men's use of IPV.

Stemming from SDT, residential stability and immigrant concentration surfaced in the theory and research review of Chapter 2 as potential neighborhood-level predictors of IPV; although, these constructs did not always operate as theorized. In other words, previous research did not find residential instability (i.e. high resident turn over) and immigrant concentration (i.e., ethnic heterogeneity) to significantly predict higher rates of IPV (Emery, Jolley, & Wu, 2011; O'Campo, Burke, Peak, McDonnell, & Gielen, 2005; Pinchevsky & Wright, 2012), and in one case, high density of immigrant population was found to have a protective effect on IPV (Wright

& Benson, 2011). In line with previous research reported in Chapter 2, results from Chapter 3 found residential instability to have a protective effect on IPV and immigrant population had no effect on IPV. Notably, results from Chapter 3 must be interpreted with caution due to inadequate measurement of residential instability. That is, residential instability is typically measured using the percent renter-occupied units in an area *and* residential duration of 5 years or more; however, only the percent renter-occupied units were used to model residential instability and, thus, the state of residential stability/instability may be mischaracterized. Considering the extant literature (Chapter 2) and the second study's findings (Chapter 3), it is likely that these constructs may not affect IPV as they do with other types of crimes.

Social Capital. Two dimensions define social capital: the psychosocial process (i.e., the relationships that exist between neighbors, social support) and the social context in which the psychosocial process takes place (i.e., tangible resources that a community could use in relationship to a social network) (Hunter, Neiger, & West, 2011). Results from Chapter 2 indicate that concepts of social capital have rarely been included in published manuscripts examining neighborhood factors related to IPV. According to the conceptual model developed in Chapter 2, social networks among residents and participation in the community were hypothesized to have important impacts on the cessation and intervention of IPV. Nevertheless, results from Chapter 3 did not indicate support for these factors. Notably, measurement of these factors was limited to a single item each and, thus, the dimensions of social capital were likely not adequately captured. Support for the importance of social capital as it relates to IPV was found in the third study (Chapter 4), however. For example, *Old Heads* were working, responsible people in the neighborhood who intervened in neighborhood conflict and violence, including IPV. Also, neighborhoods in which people "participated" were more likely to have

stronger protective influences on interpersonal violence among residents. The limited study of social capital with ecological IPV research in combination with results from Chapter 4 suggest an area of further study.

Uncovering Ecological Transactions

Neighborhood conditions can enhance or diminish health and health behaviors. That is, neighborhood factors and individual factors cannot be examined in isolation of one another, rather factors at both levels must be considered in context of each other. Considering the transaction between neighborhoods factors and individual risk and protective factors will heighten researchers, policymakers, and practitioners' ability to reduce and eliminate IPV. To that end, this dissertation, particularly the study presented in Chapter 4, uncovered potential relations between neighborhood conditions with individual behavior.

In order to explain the connection between neighborhoods characterized by concentrated disadvantage and IPV (i.e., results from Chapter 3), experiences from men in batterer intervention programs were analyzed using qualitative methods (i.e., Chapter 4). Similar to other research, findings from this study indicated that men who have used violence against their partners have witnessed intimate partner or domestic violence in childhood (for example, see Stith et al., 2000). Previous researchers have invoked social learning theory to explain the link between witnessing IPV in childhood and perpetrating IPV in adulthood (Stith et al., 2000); however, the findings presented in Chapter 4 expand upon previous research by positing unresolved trauma as a mechanism leading to IPV in adulthood.

Results from this study also revealed that a number of other adverse and traumatic experiences, in addition to witnessing IPV, influenced men's decision to "look to the streets" to ameliorate issues at home. Although previous research has identified adverse childhood

experiences (ACEs) such as exposure to abuse and neglect along with exposure to household alcohol or drug abuse as risk factors for deleterious outcomes in adulthood (Dube, Felitti, Dong, Giles, & Anda, 2003), few researchers have investigated these ACEs as potential predictors of IPV (Mair, Cunradi, & Todd, 2012).

Furthermore, previous research has linked community violence, a common characteristic of areas characterized by concentrated disadvantage, to an increased risk of IPV (e.g., Raghavan, Mennerich, Sexton, & James, 2006). Some researchers have even measured men's participation in, witnessing of, or perception of community violence as it relates to IPV (Reed et al., 2009). However, the study presented in Chapter 4 is among the first to illuminate potential links between boys' experience of ACEs and trauma in the home, re-traumatization from direct or indirect exposure to dangerous events in neighborhoods during late childhood and adolescence, and an increased risk for IPV perpetration in adulthood.

Unresolved trauma over an extended period of time can have corrosive impacts on individuals' heath and behavioral health (van der Kolk, 2005). For example, growing up or spending prolonged periods of time in unsafe environments primes individuals' neurobiology to scan for threat across contexts and throughout the day. However, this mechanism is unable to distinguish between imminent threat and normative or only somewhat threatening occurrences (Shonkoff et al., 2012).

As theorized in Chapter 4, men who come from homes and/or neighborhoods in which threats were omnipresent are conditioned to detect danger in intimate relationships, resulting in an interpretation of conflictual relational dynamics, e.g., arguments, as threatening and dangerous. Moreover, cumulative effects of trauma often affect men who come from homes and neighborhoods in which their sense of safety was continually threatened, creating a more

complex sequelae. Among these men, interactions with intimate partners that are deemed threatening may escalate quickly from conflict to IPV. In the quantitative study in Chapter 3, female to male partner violence was a robust predictor of male to female IPV. Potentially, men with unresolved trauma may be more easily triggered by physical or verbal threats from women, ultimately increasing the risk of using violence against their partners.

Results from Chapter 4 indicate that impoverished neighborhoods can take two forms, those of "villages" (inclusive of positive and negative structural forces) and "islands" (inclusive of only negative structural forces). These results supported theoretical concepts identified in the integrative review as potential neighborhood-level predictors of IPV (Chapter 2), such as men's participation in community-based organizations and men's local social networks. To wit, men in focus groups explained that villages had people who "participated" in the neighborhood, meaning individuals who were financially and socially invested in the neighborhood.

Villages included both positive (working people, strong matriarchs) and negative structural forces (gangs) that worked together to meet the needs of neighborhood residents, providing checks-and-balances. Men who lived in these neighborhoods benefited from a sense of structure and safety which helped prevent trauma exposure. Islands were characterized as neighborhoods in which people felt isolated, fearful of other residents, and kept to themselves. Negative forces were prolific in islands and overpowered the emergence of any positive forces, ultimately enhancing the risk of trauma exposure.

These results support the work of Wilson (1987) and extend the work of Sampson (1997). Wilson has written extensively on the macro-level forces, such as deindustrialization, that have converged to strip the economic and social fabric of primarily Black, inner-city neighborhoods. Wilson's work, in conjunction with research highlighting mass incarceration of inner city Black

men (Alexander, 2010), helps to explain the existence and proliferation of island neighborhoods described in Chapter 4. Additionally, these results reinforce the concept of collective efficacy identified by Sampson (1997) in that an important element of village neighborhoods was the cohesion among residents and the informal social control exerted by those in the neighborhood. This work extends Sampson's work by highlighting other important elements, such resident participation, i.e., financial and social investment in one's neighborhood, and illuminates the role of both positive and negative forces working together towards common goals.

Summary

Considering the findings from each study as an integrative whole, several important conclusions can be drawn. First, developmental trajectories leading to violence between intimate partners is multifaceted and no one path, i.e., certain risk factor, determines this outcome. Moreover, these developmental trajectories do not exist in isolation of their environments and, instead, inform and are informed by them. Thus, considering IPV from an ecological, transactional perspective is essential. The ecological conceptual model proposed in Chapter 2 was validated by the lived experiences of men in batterer intervention programs (Chapter 4) in numerous ways, indicating the models credibility for future research. However, many questions about this conceptual model remain unanswered. For example, forms of social capital (i.e., social network density and participation in the community) were not validated in the quantitative study (Chapter 3). This finding may be due to inadequate measurement or may indicate a conceptual misfit to phenomenon. Additionally, this dissertation illuminated new psychosocial process, i.e., unresolved trauma, and corroborated the importance of situational or contextual factors, i.e., female to male partner violence, that increase men's risk of IPV perpetration. Empirical evidence stemming from future studies must be paired with the existing conceptual model in order

continually enhance and refine the underlying processes by which neighborhoods influence individual behavior.

Limitations

The findings must be considered in context of overall dissertation limitations and specific study limitations. An overarching limitation of the dissertation is that only heterosexual, male to female partner violence was examined; as a result, the findings are not generalizable to female to male partner violence in heterosexual couples or partner violence within homosexual couples. Limitations also existed within each study, i.e., Chapters 2, 3, and 4.

In the integrative review, i.e., Chapter 2, a modest number of studies contributed to the analysis because only a few researchers within the IPV field analyze datasets with neighborhood-level data. As such, the results and implications that contributed to the integrated conceptual model are based on only a few samples and may be obscuring important nuances in the relation between neighborhoods and IPV. Nevertheless, the reviewed studies primarily drew from a national sample and employed stratified random or random digit dialing methods, increasing generalizability of the results to the broader population (Fowler, 2002). Additionally, the reports included in Chapter 2 were limited to published manuscripts. Inclusion of non-published manuscripts may have illuminated non-significant relationships, yielding important information for the conceptual model.

To expand upon a limitation noted in Chapter 2 -- that there were few datasets used in the existing body of ecological research on IPV -- the Fragile Families and Child Wellbeing Study dataset (Reichman, Teitler, Garfinkel, & McLanahan, 2001) was used in the study presented in Chapter 3. Nevertheless, , census-tracts were used to approximate neighborhoods, which may have obfuscated important patterns. To be certain, much of the ecological research on IPV is

plagued with this limitation due to the substantial resources required to conduct large-scale neighborhood-level research. Additionally, the outcome variable, i.e., IPV, did not include mild and moderate forms of physical and sexual IPV, limiting applicability to more severe forms of IPV. Finally, the results are limited to intact partnerships. Robustness checks indicated that the excluded group (i.e., non-intact partnerships) was indeed a more high-risk group; thus, the strength of association reported between factors and IPV are likely underestimated.

The study presented in Chapter 4 is limited in that it only included men in batterer intervention programs. Perhaps including men growing up in similar neighborhoods to those who participated in the study, without histories of violence would have highlighted important differences. Moreover, the sample consisted of primarily African American men living in the inner cities of the Midwest. A more diverse sample may have illuminated similarities and differences across race/ethnicity, urban/rural areas, etc. Finally, the use of focus groups presented a couple challenges, such as less control over the data collected and difficulty analyzing data due to multiple participants. However, precautions were put in place to minimize limitations associated with focus groups; for example, two researchers were present at each focus group to systematically record all types of data.

Implications and Future Directions

The primary aim of this dissertation was to understand how neighborhood factors converge with individual-level factors to enhance an unwanted outcome, namely intimate partner violence. The results of the three studies making up this dissertation lend themselves toward a comprehensive, multi-level approach to end intimate partner violence. Specifically, findings can inform future IPV prevention practices and future IPV research.

There are four implications that practitioners can draw from this work. First, results from Chapter 4 indicate that practitioners should incorporate trauma-informed principles into curricula for batterer intervention programs. Potentially, addressing past trauma with men in batterer intervention programs will aid in treating the root cause of violent tactics with partners, rather than addressing symptoms of unresolved trauma, and, ultimately, enhance the effectiveness of current intervention practice. For example, programs should design therapeutic activities and strategies to help men acknowledge early trauma exposure and related consequences, discriminate between actual threatening inputs and non-threatening inputs, and develop intra- and interpersonal safety. Incorporating trauma-informed principles with other types of mental health issues has yielded success, such as with substance abuse treatment (for example, see Covington, 2008); results from Chapter 4 suggests that extending these principles to men who use violence against their partners may hold similar promise. Second, results indicating that female to male partner violence significantly predicted male to female partner violence (Chapter 3) suggest that practitioners may consider incorporating dyadic work, i.e., working with both partners, when treating intimate partner violence. Although this practice has been somewhat controversial in the past, recent research shows potential for success (Gondolf, 2012). Third, results highlighting Structural Forces and Systemic Forces from Chapter 4 underline the importance of employing systemic, integrative models for IPV prevention and intervention. For example, engaging men returning from prison via prisoner re-entry programs to assess for risk factors, such as joblessness and trauma exposure, and put in place corresponding resources will enhance the success of these men in their intimate relationships and reduce the risk of IPV. In the way of prevention, creating or bolstering positive structural forces within neighborhoods to engage boys in middle childhood may have long-lasting impacts in intimate relationships in

adolescence and adulthood. Finally, results from Chapter 4 emphasize the importance of coalition building among positive and negative structural forces in impoverished neighborhoods, particularly engaging disenfranchised youth who may otherwise pursue negative structural forces for identity and purpose.

Results from this dissertation provide important broad and specific directions for future research. Broadly, confirmatory studies should examine the theoretically supported predictors and underlying mechanisms uncovered in Chapters 2 (i.e., elements of social environment, physical environment, social capital, and economic capital) and 4 (i.e., elements of ACEs and trauma exposure, structural forces, and systemic forces). Additionally, future research must develop and implement improved measurement of neighborhood-level variables. Due to limited measurement of theoretically derived predictors in Chapter 3, the non-significant relations, (e.g., social network density and community based participation related to IPV) are tentative until improved measures are employed, and future research can support or refute these findings. For example, in Chapter 3, men's *perception* of community violence was measured, rather than men's witness of or participation in community violence. Future research including the multi-faceted nature of exposure to community violence, such as conducted with Reed et al. (2009), may provide important information for intervention program design. Finally, future research must improve upon the current practice of using census-tracts as a proxy for neighborhoods because it may obscure important patterns underlying this phenomenon (Andreson & Malleson, 2013). IPV researchers may look to other fields, such as child maltreatment, that have employed improved methods such as spatial analysis (for example, see Grunewald, Freisthler, Remer, LaScala, & Treno, 2006).

Additionally, researchers can draw more specific directions from this research. First, researchers should explore the relation between trauma and IPV with men. Specifically, future studies should examine the relations between the number of adverse childhood experiences (ACEs) and IPV perpetration with community samples. With clinical samples, researchers should examine the relation between the number of ACEs and batterer intervention program completion, and the role of complex or cumulative trauma with men who have used violence. In conducting these studies, researchers must also include men's exposure to victimization and perpetration within their neighborhoods, such as the presence of or participation in gangs and participation in the drug trade, extending the current ACE framework (Finkelhor, Shattuck, Turner, & Hamby, 2013). Finally, in an effort to tease apart the relation between neighborhoods and IPV, researchers must examine the social and physical processes of neighborhoods in order to create effective neighborhood-level interventions. For example, examining the percent of incarcerated men or men on probation (i.e., macro-level), percent of locally owned businesses (i.e., exo-level), and the degree of isolation experienced by residents (i.e., meso-level) within neighborhoods may begin to unfold underlying mechanisms driving the relation between neighborhoods and IPV.

This dissertation contributes to the important shift in the IPV field, and many other fields, in which researchers, practitioners, and policy makers have begun to examine the role of environments on individual's health and health behavior. There is much work to be done in the effort to understand ecological effects on IPV, particularly illuminating the underlying mechanisms driving the relation between neighborhoods and IPV. This and future work will help to unfold the ecological dynamics related to IPV and the development of critical interventions and policies that will reduce IPV prevalence.

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Laura A. Voith

University of Wisconsin-Milwaukee
PO Box 786 Milwaukee, WI 53201
Phone: (414) 690-9104
lavoith@uwm.edu

EDUCATION

Ph.D.	University of Wisconsin-Milwaukee Department of Social Work *Dissertation Title: Exploring the Relationship between Neighborhoods and Intimate Partner Violence* Committee Members: James Topitzes (chair), Carol Cunradi, Michael Brondino, Laura Otto-Salaj, Aleksandra Snowden, Joan Blakey	Expected May 2016
MSW	University of Wisconsin-Milwaukee Department of Social Work	2012
BA	University of Wisconsin – Milwaukee Major: Psychology	2008

PEER REVIEWED JOURNAL PUBLICATIONS

Voith, L.A., Holmes, M.R., & Duda-Banwar, J. (In Press) Clicking toward Better Grades: The use of Student Response Systems in Social Work Education. *Journal for Social Work Education.*

Voith, L.A., Topitzes, J., & Reynolds, A.J. (In Press). Violent Victimization among Disadvantaged Young Adults Exposed to Early Family Conflict and Abuse: A 24-year Prospective Study of the Victimization Cycle across Gender. *Violence and Victims.*

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Voith, L.A. & Blakey, J.M. Restoring and Empowering Traumatized Girls: An Examination of a Philippines-Based Independent Living Program. *Journal of Child & Adolescent Trauma.*

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Voith, L., Barnack, J., & Reddy, D. (2008). Correlates of College Women's HPV Vaccination Decisions. Ronald E. *McNair Undergraduate Research Journal.*

FELLOWSHIPS

Advanced Opportunity Program (AOP) Fellowship 2015
Funder: The State of Wisconsin
Awarded: Total Funds $16,000

Distinguished Dissertation Fellowship 2015
Funder: University of Wisconsin-Milwaukee
Alternate List, Declined ($17,500)

Fahs-Beck Dissertation Grant Program 2015
Funder: Fahs-Beck Fund for Research and Experimentation
Not Funded ($5,000)

Guggenheim Dissertation Fellowship 2015
Funder: Harry Frank Guggenheim Foundation
Not Funded ($20,000)

NIJ Graduate Research Fellowship Program in the Social and Behavioral Sciences 2014
Funder: National Institute of Justice
Not Funded ($32,000)

International Research Fellowship 2012
Funder: Helen Bader School of Social Welfare, University of Wisconsin-Milwaukee
Awarded: Total Funds $4,000

Dean's Fellowship 2011
Funder: Helen Bader School of Social Welfare, University of Wisconsin-Milwaukee
Awarded: Total Funds $20,000

AWARDS

SSWR 2016 Doctoral Fellows Award 2015
Funder: Society for Social Work Research
Not Funded ($3,000)

Dr. Tomas Garrett-Rosas Research Award 2015
Funder: University of Wisconsin-Milwaukee
Awarded: Total Funds $1,500

CSWE Annual Program Meeting Student Travel Scholarship 2015
Funder: Council on Social Work Education
Awarded: Total Funds $765

Graduate School Travel Grant 2013 - 2014
Funder: Graduate School, University of Wisconsin-Milwaukee
Awarded: Total Funds $1,850

Graduate Student Reading Group Grant 2013
Funder: Center for 21st Century Studies, University of Wisconsin-Milwaukee
Awarded: Total Funds $300

Midwest SAS User Group, Student Scholarship Recipient 2012
Funder: SAS ® Institute
Awarded: Total Funds $210

McNair Achievement Program, Scholar 2008
Funder: Ronald E. McNair Post Baccalaureate Achievement Program
Awarded: Total Funds $2,800

PEER REVIEWED PRESENTATIONS

Voith, L.A. (2015, October). Exploring the Relationship between Neighborhoods and Intimate Partner Violence: An Integrative Review. Interactive Poster presented at Council for Social Work Education Annual Program Meeting. Denver, CO.

Yoon, S., Kobulsky, J., **Voith, L.A.,** Steigerwald, S., & Holmes, M.R. (2015, October). Violence Exposure and Adolescent Behavior Problems: Parent-child Relationships as a Mediator. Interactive Poster presented at Council for Social Work Education Annual Program Meeting. Denver, CO.

Voith, L.A. & Blakey, J.M. (2014, November). Restoring and Empowering Traumatized Youth: An Examination of a Philippines Based Transitional Living Program. Oral paper presented at American Public Health Association Annual Meeting and Exposition. New Orleans, LA.

Voith, L.A., Anderson, R.E, & Cahill, S. P. (2014, July). The Cycle of Violence: Males' Experience of Childhood Victimization and Later Revictimization and Perpetration. Oral paper presented at International Family Violence and Child Victimization Research Conference. Portsmouth, NH.

Voith, L.A., Gromoske, A.N., & Holmes, M.R. (2014, January). An Ecological Examination of Cumulative Violence Exposure on Children's Trauma and Depression Symptoms. Oral paper presented at Society for Social Work Research, San Antonio, TX.

Holmes, M.R., **Voith, L.A**., & Gromoske, A.N. (2014, January). Lasting effect of intimate partner violence exposure during preschool: Cross-lagged analyses of aggressive behavior and prosocial skills. Oral paper presented at Society for Social Work Research, San Antonio, TX.

Anderson, R., Chen C., Cortes, N., Milli, J., & **Voith, L.A.** (2013, February). Violence Against Women, Interdisciplinary Approaches and Failure: A Discussion Panel. Panel presentation at Midwest Interdisciplinary Graduate Conference, Milwaukee, Wisconsin.

Voith, L.A. & Topitzes, J. (2013, January). The Cycle of Victimization: A Main Effect, Moderation, and Mediation Study. Poster presented at Society for Social Work Research, San Diego, CA.

Barnack, J., **Voith, L.,** & Reddy, D. (2009, April). The HPV Vaccine Debate: What do College Women and Feminists Think? Poster presented at Association for Women in Psychology, Newport, Rhode Island.

Rameshbabu, A., Reddy, D.M., Fleming, R., Nettles, S., **Voith, L**., & Wawiorka, A. (2009, March). Shift work and Negative Health Behaviors. Poster presented at Midwest Psychological Association Annual Conference.

OTHER PRESENTATIONS

Voith, L.A. (2013, May). Healthy Relationships Workshop: Women's Health Fair. Milwaukee Health Services, Inc., Milwaukee, Wisconsin.

Voith, L.A. (2012, August). Healing and Survival of Filipino Youth. Oral presentation presented at Consuelo Foundation, Manila, Philippines.

Voith, L.A. (2011, August). Community Collaboration for Services of Sexual Assault and Domestic Violence Survivors: Emergent Themes from a Purposive National Sample. Oral report presented at Milwaukee County Sexual Assault and Domestic Violence Planning Summit, Milwaukee, WI.

Voith, L., Barnack, J., & Reddy, D. (2008, October). Correlates of College Women's HPV Vaccination Decisions. Oral paper presented at 17th Annual McNair Conference and Graduate Fair, Delavan, WI.

RESEARCH EXPERIENCE

Study Coordinator 2014 –Present

Evaluation of PEACE Program: A school-based violence prevention program. Funded by SET Ministry ($50,000)

Supervisor: James Topitzes, Ph.D., Principal Investigator

Responsible for operation management, data collection and analysis, and report writing of a program evaluation with three elementary schools in Milwaukee using quantitative and qualitative methods; supervised, trained, and mentored 2 MSW graduate research assistants and 1 MSW field student; adapted training manual of violence prevention program for teachers; designed and implemented training modules for teacher training and "coaching" in program principles; co-authored two successful IRB protocols

Research Assistant 2013 - 2014

Center for Applied Gerontology. Funded by Helen Bader Endowment.

Supervisor: Rhonda Montgomery, Ph.D., Endowed Chair

Responsible for contributing to two grant applications for National Institute of Health; wrote two successful IRB protocols; collaboratively conceptualized multiple research projects and built community alliances

Principal Investigator 2012

Healing and Survival of Filipino Youth: Examining Risk and Resilience in Trauma Survivors. Funded by International Research Fellowship, Helen Bader School of Social Welfare ($4,000)

Supervisor: Laura Otto-Salaj, Ph.D. Faculty Principal Investigator

Conceptualized and implemented a cross-cultural, exploratory qualitative study; conducted and transcribed focus groups; analyzed data using thematic analysis; wrote a co-authored manuscript (under review)

Assistant Researcher 2009 – 2011

Etiology of HIV Sexual Risk, Substance Use, and Trauma: A Bioecological Systems Model (Etiology/Resilience). Funded by NIH-NIDA (R01 – DA23858-02A2) ($2,932,106)

Supervisor: Laura Otto-Salaj, Ph.D. Principal Investigator

Responsible for participant recruitment and retention, in-person interviews, and data management; created and employed a data fidelity system; assisted with community relations and financial management

Ronald E. McNair Post Baccalaureate Achievement Program 2008

Correlates of College Women's HPV Vaccination Decisions. Funded by Department of Education (84.217A) ($254,237)

Supervisor: Diane Reddy, Ph.D. Principal Investigator

Responsible for conceptualization, data analysis, and report writing for study on college women's decisions to receive HPV vaccination

Research Assistant 2008
Exploration of College Women and the HPV Vaccination.
Supervisor: Diane Reddy, Ph.D.
Responsible for data coding for master and doctoral student thesis/dissertation

Research Assistant 2008
Enhancing the Intelligibility of Narrowband Speech with Out-of-band noise. Funded by the NIDCD (R01 – DC000208)
Supervisor: Peter Lenz, Ph.D.
Conducted participant screening, data collection; trained undergraduate research assistants in data collection procedures

TEACHING EXPERIENCE

Course Design Consultant
Trauma Theory – Masters
Helen Bader School of Social Welfare, University of Wisconsin-Milwaukee Spring 2015
Advised faculty on the development of a fully online version social work elective course for masters-level students; developed modules for online delivery

- Cognition & Moral Development
- Historical Trauma

Lecturer
Human Behavior and the Social Environment – Undergraduate Fall 2014
Helen Bader School of Social Welfare, University of Wisconsin-Milwaukee
Developed course using active learning for 74 undergraduate students; fostered student engagement using "clickers"; developed 4 online lessons; supervised one (1) undergraduate teaching assistant

Lecturer
Individual Behavior and Social Welfare – Masters Spring 2014
Helen Bader School of Social Welfare, University of Wisconsin-Milwaukee
Developed course using active learning for 15 master-level students; supported an environment of critical thinking and application of material

Guest Lecturer Fall 2012
Trauma Theory - Masters
Helen Bader School of Social Welfare, University of Wisconsin-Milwaukee
Developed individual lectures using active learning for 20 master-level students; supported an environment of critical thinking and application of material

- Cumulative Trauma
- Historical Trauma

Teaching Assistant Fall 2012
Trauma Theory - Masters
Helen Bader School of Social Welfare, University of Wisconsin-Milwaukee
Created learning tools for students through various forms of media; assisted professor with grading and managed grading book

PROFESSIONAL EXPERIENCE

Grant Development Assistant 2013-2014
Office of Proposal Development Services
Supervisor: Kari Whittenberger-Keith, Ph.D. & Michelle Schoenecker, MS
Conducted content analysis of grant proposal reviewer feedback and presented results for training; conducted individual funding searches for faculty; distributed weekly funding announcements; identified effective grant writing training resources

Masters of Social Work Internship 2012
Association Compassion Asian Youth (ACAY)
Supervisor: Yvonnie Dontogan, MSW
Provided individual and group therapy to adolescent female trauma survivors; conducted advocacy work within government and non-government systems; conducted home visits; co-wrote case management systems manual; conducted training in program logic models

Masters of Social Work Internship 2011
Milwaukee Health Department, Office of Violence Prevention
Supervisor: Audrey Skwierawski, J.D.
Co-facilitated work groups for the Milwaukee Commission on Domestic Violence and Sexual Assault with 50 stakeholders; conducted data collection and performed a content analysis of nationwide semi-structured interviews with sexual assault providers and delivered report; created and employed survey for Milwaukee community regarding sexual assault education

CONTINUING EDUCATION & TRAINING

Communicating Your Research Effectively at Conferences, University of Wisconsin-Milwaukee Center for Excellence in Teaching and Learning, Milwaukee, Wisconsin, February 24th, 2015
Teaching Philosophy and Portfolio Workshop, University of Wisconsin-Milwaukee Center for Excellence in Teaching and Learning, Milwaukee, Wisconsin, September 24th, 2014
Online and Blended Teaching Program, University of Wisconsin-Milwaukee Center for Teaching and Excellence, Milwaukee, Wisconsin, June – August, 2014
SAS Business Analytic Software Workshop, SAS Institute ® and the University of Wisconsin-Milwaukee Center for Addiction Behavioral Health Research, Milwaukee, Wisconsin, August 29th – 30th, 2013
Dedoose Software Workshop, University of Wisconsin-Milwaukee Center for Addiction Behavioral Health Research, Milwaukee, Wisconsin, June 3rd – 4th, 2013
Responsible Conduct of Research, University of Wisconsin-Milwaukee Science and Research Integrity Professional Development Series, Milwaukee, Wisconsin, September – December, 2012

Connection between Trauma, Substance Use, and Mental Health: A Trauma Informed Training hosted by Dr. Stephanie Covington in Milwaukee, Wisconsin, December 2012
21st Annual National McNair Research Conference and Graduate Fair, Lake Geneva, Wisconsin November 9 – 11th, 2012 [Moderator]
Community Based Intervention Research for Underserved and Minority Populations, SSWR Summer Institute Workshop hosted by University of Pittsburg, Pittsburg, PA. July 12 – 14th, 2011
EDGE Ph.D. Visitation Program at the University of Southern California funded by the National Science Foundation (NSF), Los Angeles, California, November 12 – 15th, 2008
WAEOPP McNair and SSS Senior Retreat, Fontana, Wisconsin, September 26 – 28th, 2008
22nd Annual 2008 CIC/SROP Conference, Michigan State University, July 25 – 27th, 2008
Proficient in Microsoft Office: Microsoft Word, Microsoft Excel, Microsoft Powerpoint, SPSS, and SAS

SERVICE

Social Service Review 2015 - Present
Book Reviewer

Social Work Program Writing Committee 2014 - Present
Committee Member

Worked with faculty of undergraduate and master's social work program to develop and implement programmatic changes to address strengthening writing of students matriculating through undergraduate and graduate programs

Doctoral Program Committee 2013 - 2015
Member, Student Representative

The program committee is responsible for advising the chairs of the joint MSW/PhD and PhD program on course requirements and expansions, research and teaching expectations of doctoral students, and development of the program model to meet evolving standards and student needs.

Doctoral Student Seminars & Workshops 2012 – 2015
Coordinator

Identified and coordinated speakers regarding methodology, professional development, and opportunities to network for social work doctoral students

Milwaukee Commission on Domestic Violence and Sexual Assault 2013 - 2014
Data Work Group Member

Worked with group members to build community relationships in order to create a more cohesive process to collect city-wide data on domestic violence and sexual assault, conduct simple statistics on data collected, and prepare annual report for City of Milwaukee stakeholders

Advisory Committee Member 2013 - 2014
Cathedral Center

Assisted with conceptualization of transitioning a homeless shelter for women and families to a trauma-informed care model; Tasked with advisement of agency program redesign, adoption, and elimination, staff structure, and interpretation of evaluation of agency impact

Violence against Women Interdisciplinary Research Group 2012 – 2014
Co-Founder & Co-Chair

Co-developed aims and goals of VAWIRG; Coordinated Milwaukee Area Interpersonal Violence Research Symposium in April 2014

Doctoral Admissions Committee 2012 - 2013
Member, Student Representative

The admissions committee is responsible for advising the chairs of the joint MSW/PhD and PhD program on the admission of student candidates based on the applicant's GPA, GRE scores, personal statement, research writing sample, professional history, and area of interests.

Psychology of Women Quarterly 2009 - 2013
Student Reviewer

Graduate Faculty Committee 2011 - 2012
Member, Student Representative

Advised the Dean of the Graduate School on administrative issues that pertain to graduate education, formulate and review graduate programs, review existing graduate programs, formulating and implementing guidelines for fellowship funds, and upholding the integrity of graduate programs on campus

PROFESSIONAL AFFILIATIONS

Council for Social Work Education	2015 – Present
American Public Health Association	2014 – Present
National Association of Social Workers	2012 – Present
Society for Social Work and Research	2011 – Present
Psi Chi	2008 – Present
American Psychological Association	2008 – 2011