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# Safe Havens or Danger Zones?: A Multilevel Examination of Immigration, Community, and Intimate Partner Violence

Adrienne Celaya

*University of Miami*, a.celaya1@umiami.edu

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UNIVERSITY OF MIAMI

SAFE HAVENS OR DANGER ZONES? A MULTILEVEL EXAMINATION  
OF IMMIGRATION, COMMUNITY, AND INTIMATE PARTNER VIOLENCE

By

Adrienne Celaya

A DISSERTATION

Submitted to the Faculty  
of the University of Miami  
in partial fulfillment of the requirements for  
the degree of Doctor of Philosophy

Coral Gables, Florida

May 2014

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Adrienne Celaya

Approved:

\_\_\_\_\_  
Amie L. Nielsen, Ph.D.  
Associate Professor of Sociology

\_\_\_\_\_  
Alejandro Portes, Ph.D.  
Research Professor of Sociology

\_\_\_\_\_  
Roger G. Dunham, Ph.D.  
Professor of Sociology

\_\_\_\_\_  
M. Brian Blake, Ph.D.  
Dean of the Graduate School

\_\_\_\_\_  
Donna Coker, J.D.  
Professor of Law

CELAYA, ADRIENNE  
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Of Immigration, Community, and Intimate Partner Violence

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The second wave of feminism in the 1960s and 70s brought intimate partner violence (IPV) to the forefront of public discourse, leading to recognition that it is a major social concern in the United States. Since then, substantial progress has been made in IPV research despite its complex nature. Recently, the country's demographic shift has prompted scholars to examine the role of the immigrant experience for IPV. Despite advancements in the field over the past several decades, several questions regarding the nature of IPV have remained unanswered. The scarce research on IPV among immigrant populations provides inconclusive findings on the role of the immigrant experience on this type of violence, studies on gender symmetry have continued to yield inconsistent results prompting disagreement among scholars, and the recent use of multilevel modeling in IPV research has only begun to uncover the confounded effects of micro- and macro-level predictors of violence between intimates.

This dissertation seeks to contribute to the existing literature by providing a multilevel analysis of IPV and several immigrant-related factors. Specifically, this study examined the impact of nativity status and neighborhood immigrant concentration on IPV types, net of the effects of individual, couple and neighborhood factors, and incorporated social disorganization theory as a major theoretical framework. The purpose was to determine whether there are differences among native and immigrant populations in the risk of IPV and in the neighborhoods in which they reside. In addition, the analyses

assessed whether the data evidenced gender symmetry in IPV. Based on prior research, I expected to find a positive association between immigrant status and the likelihood of IPV victimization and perpetration, and a negative association between neighborhood immigrant concentration and all IPV types. I also expected to find a positive association between being female and IPV victimization. Utilizing longitudinal data from the National Longitudinal Study of Adolescent Health (Add Health), this dissertation seeks to contribute to the existing literature by providing a multilevel examination of IPV, defined as two categories – physical and severe, that incorporates elements of the recent field debates on the immigration-crime debate and gender symmetry. The hypotheses were tested utilizing univariate, bivariate, and multivariate analyses.

The hypotheses received partial support. Multinomial logistic regression results indicated that immigrant status was significantly and positively associated with physical IPV perpetration, severe IPV victimization, and severe bidirectional IPV. Results also indicated that immigrant concentration was not significantly related to any of the physical IPV or severe IPV types. In terms of sex differences, females were significantly more likely to be perpetrators of physical IPV, victims of severe IPV and to participate in bidirectional physical IPV. Study findings suggested that while neighborhood context does play a small role in the likelihood of certain IPV types, individual-level factors are resilient predictors of this type of violence. Community structural factors did not explain away the effects of the individual and relational indicators of IPV in this study.

The study also highlights the need for continued development of tools for IPV measurement so as to obtain more accurate accounts of its prevalence, incidence, and severity. Future research should also continue to focus on the susceptibility of victims

and conditions specific to immigrants that may enhance their vulnerability to IPV. Specifically, identifying predictors that differentiate types and directionality of IPV, and determining if there are differences among the native and immigrant populations, can lead to the implementation of more appropriate intervention strategies and services. Finally, it is recommended that agencies interested in IPV should focus on data compilation so as to provide larger and more comprehensive datasets from which to conduct more in-depth IPV research.



To my parents,  
Maritza and Andres,  
for instilling in me the belief that you can never be overeducated  
and the values that guide my research

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“... With the right education, both at home and at school, you can learn how to be a better human being. For when you read a great story or you learn about an important moment in history, it helps you imagine what it would be like to walk in somebody else’s shoes, to know their struggles. The success of our economy will depend on your skills, but the success of our community will depend on your ability to follow the Golden Rule -- to treat others as you would like to be treated.”

- Barack Obama  
President of The United States of America

The completion of this dissertation and my graduate career at the University of Miami has been a long and rewarding journey that I could not have achieved alone. First and foremost, I would like to thank the members of my committee, who not only guided the direction of my paper, but inspired me to be a better academic. I am forever indebted to Dr. Amie L. Nielsen for her guidance, encouragement, and patience over the last several years. Her constant input, willingness to meet, and numerous emails just “checking-in” kept me on track and challenged me to do my best work. I would like to thank Dr. Alejandro Portes for taking me under his wing a few years ago and reminding me of why I fell in love with sociology through his seminal work on immigration. I am grateful to Dr. Roger Dunham and Professor Donna Coker for bravely agreeing to serve on my committee and whose contributions throughout this process were remarkable. I also want to thank Dr. Michael French and the Health Economics Research Group for granting me access to the dataset used in this dissertation, sharing your office space with me, and always answering my questions even if it meant taking on a bit of extra work.

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## **Chapter 1**

### **INTRODUCTION**

After decades of confinement in the private sphere, activism in the 1960s was the first step in bringing the issue of violence against women by intimate partners to the forefront of public discussion (Rizer 2005). The issue was further highlighted and violence vehemently advocated against in the decade that followed during the second wave of feminism and with the development of the Battered Women's Movement (Dutton 1985; Straus, Gelles, and Steinmetz 1981; Tierney 1982; Walker 1979). Until that time, prevailing explanations of violence against women were based on the psychopathology of batterers, and incidents were viewed as a familial problem (Kurst-Swanger and Petcosky 2003). The view began to change under the new feminism. In addition to challenging existing lifestyle and economic issues, the rise of the new feminism placed a direct focus on the power dynamics of heterosexual relationships. A theme that distinguished it from earlier movements was appropriately captured by the famous slogan: "the personal is the political." This new wave of feminism proved significant in not only creating greater awareness of intimate partner violence (IPV), but also in the development of more accurate explanations for its occurrence and persistence (Kirkwood 1993). The first of these theories was posited by the very feminists mobilizing the movement and who explained IPV in terms of power and control operating within, and enabled by, society's patriarchal framework (Dobash and Dobash 1979).

After steadily garnering greater attention in the media and academic arenas, a significant decline in the prevalence of IPV among Americans has been observed since the 1960s, with the drop most notably occurring after 1993, concurrent with drops in

other types of crime (Catalano, Smith, Snyder and Rand 2009; Rennison 2003). However, while improvements are evident in aggregate rates of IPV, it remains a prevalent issue and continues to be a concern across the country with adverse effects on the well-being of victims and their offspring (Breiding and Black 2014; Catalano 2006; CDC 2010). Indeed, in the U.S. in 2010 more than one in three women reported being stalked, physically assaulted or raped by an intimate partner at some point in their lives (CDC 2010).

Several factors make examination of IPV more difficult than other forms of violence, most notably the frequently passive criminal justice responses to it and the changing definitions of IPV. The nature of the relationships of the parties involved in incidents of IPV created hesitation among policymakers to define it as a crime as well as resistance among the general public and police to intervene and recognize it as one. While women's rights advocates in the late 19<sup>th</sup> century successfully eliminated the legal right of husbands to physically punish their wives in 'moderation' (Siegel 1996), there was an evident policy-practice gap whereby the persistence of spousal abuse, and its subsequent lack of recognition, was sustained through informal norms governing family life. This disjuncture between formal laws and prevailing informal norms gave way to the practice of using marriage licenses as "hitting licenses" without serious repercussions for perpetrators (Stets and Straus 1989; Straus and Hotaling 1980; Straus, Kantor, and Moore 1997). Domestic violence legislation, under which IPV was prohibited, simply stated the legalities of the issue, while neglecting the provision of active protections against it. This led to the dismissal of IPV incidents by actors in the legal system and concerns among victims about reporting and possible subsequent retribution. Browne (1987) emphasized



this point in her work on battered women. She pointed to the lack of assistance by criminal justice agencies as a deterrent to the departure from these abusive relationships as well as a motivator for retaliatory lethal violence for victims who sought to leave and/or seek criminal justice intervention (see also Eber 1981, Ewing 1997). At present, some contend that IPV cases are still not treated stringently enough by criminal justice systems in some states (Michalski 2004), allowing perpetrators to avoid jail time altogether by participating in pre-trial diversion or batterer's intervention programs.

As the criminal justice system has attempted to address IPV, scholarly interest in the topic has also increased. Over the past 40 years, researchers have made substantial progress in advancing understanding of IPV and addressed conceptualization issues that further add to the complexity of its examination. More specifically, it is argued that divergent scholarly definitions of this type of violence produce inconsistent patterns in terms of assessing the extent, severity and nature of abuse (Dasgupta 2002; Dobash and Dobash 2004; Johnson 1995). Altogether, inconsistent findings in empirical research make it difficult to ascertain which populations are disproportionately affected by IPV, where funding should be allocated, and which specific issues policies should address. While it is established that research findings depend on the measures of IPV used, the widespread disagreement on the appropriateness of definitions is visible in the highly contentious gender symmetry debate among scholars, whereby researchers dispute the role of gender in victimization and perpetration patterns (for an overview see Allen 2011).

Following the shift away from early IPV theories of psychopathology, research in the field has generally been dominated by two competing theoretical perspectives:

feminist theory and family violence research. While feminist theorists focus on patriarchy as the underlying source of IPV (Dobash and Dobash 1979), family researchers place a greater emphasis on the role of sociodemographic indicators of structural inequality (Straus, Gelles and Steinmetz 2006). Guided by these perspectives, risk factors pertaining to individual perpetrator characteristics, victim vulnerability, and couple dynamics have been well-established. For example, perpetrators are likely to be young (Caetano, Vaeth, and Ramisetty-Mikler 2008), of low socioeconomic status (Fox, Benson, DeMaris, and Van Wyk 2002; Moffitt and Caspi 1999), have a history of substance abuse (Stalans and Ritchie 2008; Thompson and Kingree 2006), and display personality characteristics such as extreme jealousy (Guerrero et al. 2004; Stith et al. 2004). Studies have also found that prior victimization (Coker et al. 2000; Hattendorf and Tollerud 1997), mental health issues (Campbell et al. 2002; Dutton et al. 2005; Hankin et al. 2010), and substance abuse (Caetano, Schafer and Cunradi 2001; Hankin et al. 2010) all enhance victim vulnerability. Separation among couples has also been identified as an IPV risk factor (Farr 2002; Serran and Firestone 2004; for a review see Stith et al. 2004).

Differences in each perspective's beliefs about the underlying causes of IPV have led to differences in its conceptualization and given rise to a controversial debate regarding the existence of gender symmetry in IPV. In criminological studies, IPV is conceptualized in two ways: 1) as referring exclusively to physical assaults on an intimate partner (dating, cohabiting or marital) (see Gelles and Straus 1979; Saltzman 2004); or 2) in a broader sense that includes physical aggression, sexual coercion, and/or emotional/psychological abuse involving tactics of power and control of an intimate partner (dating, cohabiting or marital) (see Kilpatrick 2004; Tjaden 2004). These two

definitions represent the competing perspectives in the gender symmetry debate, whereby researchers adhering to the gender symmetry hypothesis utilize a narrow definition of IPV and find that women are just as likely as men to be perpetrators of IPV (Archer 2000; Dutton 2007; Straus 1979, Straus, Hamby, Boney-McCoy and Sugarman 1996). Opponents of the gender symmetry hypothesis counter that defining IPV solely in terms of physical assault disregards broader patterns of abuse and control, and in turn, their harmful consequences. While physical aggression is the most recognizable form of IPV, consequences are not limited to physical injuries but can also include mental health issues such as depression and suicidal ideation, reliance on substance abuse as a coping mechanism, and the transmission of diseases through sexual contact (CDC 2011). Kilpatrick (2004) and Tjaden (2004) are among those who assert the importance of examining other techniques individuals use to intimidate, terrorize or inflict harm on their intimate partners. Consistent with feminist views regarding the gendered nature of IPV, studies using broader definitions of IPV consistently find that women are more likely to be victimized by their male counterparts (Acker 2006).

Overall, while research has shown that IPV is often bidirectional (Brush 1990; Caetano, Ramisetty-Mikler and Field 2005; Tolan, Gorman-Smith and Henry 2006), it is also evident that women are more likely experience the tactics of coercive control included in broader definitions of IPV (Archer 2002; DeKeseredy et al. 1997; Johnson 1995; Johnson and Ferraro 2000; Pence and Paymar 1993). The higher rates of IPV experienced by women than men are further supported by UCR and NCVS data on assaultive incidents. For example, in 2008 it was reported that 653,000 individuals were victims of non-lethal IPV and, of these, 552,000 were women (Catalano et al. 2009).

Similar patterns were found in rates of lethal IPV for the previous year, with women killed by an intimate partner at twice the rate of men. In 2007 alone, intimate partner homicides accounted for 14% of the total homicide rate; however, of these, 70% of victims were women (Catalano et al. 2009). These trends suggest that redefinition of IPV from a private matter to a social problem was not enough to eradicate existing patterns, as IPV not only persists in American society, but continues to plague women disproportionately and represents a significant form of crime.

There have been efforts to reconcile the contradictory and inconsistent findings supporting gender symmetry or asymmetry. One of the most significant developments arising out of this debate is the delineation of different types of IPV that can be explained by varying etiologies (Gelles and Straus 1988; Graham-Kevan and Archer 2003; Holtzworth-Munroe et al. 2000; Holtzworth-Munroe and Stuart 1994; Johnston and Campbell 1993; MacMillan and Gartner 1999; Olson 2002; Straus 1990). For example, Johnson and colleagues (1995, 1996; Johnson and Ferraro 2000; Johnson and Leone 2005; Kelly and Johnson 2008; Leone, Johnson, Cohan and Lloyd 2004) developed and modified a typology of IPV that differentiates incidents according to the use of coercive control, retaliation and separation. These more detailed definitions of IPV differ according to context and social location, leading to questions about the explanatory power of existing theories and the effectiveness of standard models of prevention that do not take into account these relationship dynamics.

While individual and relational characteristics helped identify patterns among couples experiencing IPV, it has been argued that more complete explanations must incorporate social structure and cultural supports of IPV (Hattery 2009). Consequently,

some researchers have called for theoretical integration of varying perspectives to provide a more comprehensive understanding of IPV, specifically when using typologies of violence (Anderson 1997; Miller 1994). This unified approach to explaining violence between partners has provided substantial theoretical contributions and prompted scholars to incorporate other elements of social life as predictors in the occurrence of IPV. This has been visible in the rising number of neighborhood studies of IPV (Benson and Fox 2002; Benson et al. 2003; Benson et al. 2004; Browning 2002; DeMaris et al. 2003; Fox and Benson 2006; Miles-Doan 1998; Van Wyk et al. 2003; Wright and Benson 2010) and in the development of nested ecological frameworks (Dutton 1995; Edleson and Tolman 1992; Heise 1998). Collectively, these theoretical and methodological advancements have provided a wealth of information on the multitude of social processes affecting IPV. The intricacies of current explanations are fitting considering the complex nature of the intimate relationships themselves. While providing more comprehensive descriptions of the conditions under which, and reasons why, IPV occurs, they have simultaneously led to the development of additional questions, especially when considering the changing composition of American society.

The country's population has gradually changed over the last several decades, a point that has been highlighted extensively in the media. Whereas 16 percent of the population was a racial/ethnic minority in 1970 (U.S. Information Agency 1998), in 2005 ethnic minorities comprised 33 percent of the nation's inhabitants (U.S. Department of Education 2007). Race and ethnicity have become prominent issues in the study of IPV, mainly because of the high prevalence of IPV in minority communities (Hampton and Gelles 1994; Tjaden and Thoennes 2000). While it is important to note that ethnic

minorities are more likely to be victims and perpetrators of abuse, largely because of broader socioeconomic factors and conditions (Dugan et al. 1999; Fox et al. 2002; Hotaling and Sugarman 1990; Melzer 2002; Moffitt and Caspi 1999; Pyke 1996), it is also important to study race in the context of the stress process associated with IPV due to possible differences in the availability and utilization of social networks. Large-scale immigration into the country has resulted in the growth of the foreign-born population, from 4.7 percent in 1970 (Gibson and Lennon 1999) to 12.9 percent in 2010 (Grieco et al. 2012). This demographic shift has prompted scholars to examine the role of immigrant status in the perpetration of crime and more recently, in interactions among intimate partners.

At the macro-level, criminological research on social disorganization has viewed immigrant concentration as an indicator of ethnic heterogeneity, fostering crime by reducing informal controls within communities (Shaw and McKay 1969). However, this immigrant-crime relationship has been heavily criticized by criminologists who find that immigrants do not have a higher propensity for crime than the native-born (see Sampson, Morenoff and Raudenbush 2005) and that immigrant concentration in neighborhoods may function as a protective factor against crime, rather than a risk indicator (Desmond and Kubrin 2009; Lauritsen 2001; Lee, Martinez and Rosenfeld 2001; Martinez and Lee 2000; Martinez, Lee and Nielsen 2004; Morenoff, Sampson and Raudenbush 2001; Sampson 2008; Sampson et al. 2005). Theories of immigration and immigrant status have received little attention in the criminological literature on IPV. However, the few studies that do examine these issues have found support for the inverse relationship between crime and immigration in multilevel studies of IPV (Wright and Benson 2010). At the

micro-level, however, IPV literature suggests that immigrants experience specific stressors that increase their vulnerability to victimization (Menjívar and Salcido 2002; Perilla et al. 1994).

Despite advancements in this field of research, several questions regarding the nature of IPV remain unanswered. The scarce research on IPV among immigrant populations provides inconclusive findings on the role of the immigrant experience on this type of violence, studies on gender symmetry have continued to yield inconsistent results impeding agreement among scholars, and the recent use of multilevel modeling in IPV research has only begun to uncover the confounded effects of micro- and macro-level predictors of violence between intimates. Utilizing longitudinal data from the National Longitudinal Study of Adolescent Health (Add Health), this dissertation seeks to contribute to the existing literature by providing a multilevel examination of IPV that incorporates elements of the recent field debates on the immigration-crime debate and gender symmetry. Specifically, I examine the role of immigrant status (nativity) and community factors in the occurrence of IPV, net of the effects of individual-level characteristics (inclusive of gender). Attention will be given to the effect of immigrant concentration (neighborhood level) in the study of IPV. These immigration variables are specifically considered due to findings on the unique conditions experienced by immigrants as they attempt to join mainstream American society, or at least function within it. For example, research has shown that immigrants in the U.S. may find themselves negotiating traditional beliefs about gender, experiencing lifestyle changes that affect the dynamics of their personal relationships, and facing increased social isolation as compared to their home country (Menjívar 1999; Menjívar and Salcido

2002). This analysis differs from previous research by incorporating individual, relationship and community correlates of IPV in its specific focus on immigration in the examination of different forms of IPV, specifically differentiating between perpetration of unidirectional IPV, victimization of unidirectional IPV, and bidirectional IPV. The differentiation of IPV types allows for the examination of gender patterns in perpetration, victimization and bidirectional violence.

This study attempts to answer the following questions regarding IPV:

- How does immigrant status affect the likelihood of perpetration of unidirectional IPV, victimization of unidirectional IPV, or bidirectional IPV?
- Is there a significant relationship between gender and directionality of IPV?
- What other individual, relational and community characteristics are significant predictors of these IPV types?
- How does immigrant concentration in a neighborhood affect the likelihood of IPV perpetration, IPV victimization, and bidirectional IPV?
- Are the individual-level predictors of IPV conditioned by community-level factors?

The broader purpose of this study is to determine whether there are differences among native and immigrant populations in the risk of IPV, and more importantly in the neighborhoods in which they reside. Additionally, it seeks to assess whether there is any evidence of gender symmetry in IPV. In attempting to bridge these gaps in the literature, this dissertation may be an important step in unraveling the relationship between IPV and immigrant-related factors operating at different levels of social life. Research in the aforementioned areas is critical for aiding our general understanding of IPV and in



determining whether experiences differ among population subgroups and within the neighborhoods they reside, therefore allowing possible types of interventions to be identified. Furthermore, the identification of potential significant variables may aid in the identification of more appropriate prevention strategies and services.

The organization of the remaining chapters of this dissertation is as follows. Chapter Two provides a summary of the contemporary theoretical frameworks for explaining IPV with particular emphasis on the competing perspectives that have guided research in this field. Chapter Three offers a detailed review of studies documenting significant individual-, relationship- and community-level correlates of IPV, inclusive of factors associated with the immigrant experience and immigrant concentration in neighborhoods. Chapter Four explains the methodology utilized in this study, providing detailed information on the sample, conceptualization of variables, and the multilevel modeling techniques used. Chapter Five reports the results of the analysis. In closing, Chapter Six draws conclusions based on key findings, discusses the implications of the analysis, and suggests avenues for future research.

## Chapter 2

### THEORETICAL BACKGROUND

Theories of IPV have gradually shifted from single-variable explanations to more complex frameworks that incorporate elements from micro- and macro- level processes. This chapter begins by briefly describing early individual-oriented theories of IPV. Attention is then focused on sociocultural theories guided by the two major approaches used to explain IPV and their divergent assertions regarding the role of gender. The general tenets of these competing frameworks are discussed, as well as their explanations of immigrant vulnerability to IPV. Contemporary beliefs about the usefulness of these approaches are reviewed in relation to the current knowledge of abuse. Discussion then proceeds to an overview of social disorganization theory, its extension to IPV, and the rationale for using ecological frameworks to explain this type of violence.

#### *Individual-Oriented Theories*

Early explanations of IPV relied heavily on individual levels of analysis (Bui and Morash 1999). These theories attributed violence between partners to batterer and victim characteristics related to psychopathology (Dutton 1995; Gleason 1993; Holtzworth-Munroe and Stuart 1994; Holtzworth-Munroe et al 2000), background factors (Murphy, Meyer, and O'Leary 1993), and social learning (Bandura 1977). Critics of these approaches argued that these types of explanations lessen batterer accountability (Chornesky 2000) and assume that certain victim characteristics are predictors, rather than consequences, of victimization (Gelles and Cornell 1990).

Theories of psychopathology combine ideas regarding childhood development and personality disorders to explain IPV perpetration (Holtzworth-Munroe and Stuart

1994). For example, Dutton (1995) describes how shame and lack of stable attachments during childhood combined with impulsivity can increase the likelihood of IPV perpetration. Individuals experiencing these conditions are said to desire attachment and fear rejection by significant others. Consequently, when they feel their intimate relationships are threatened, they are more likely to act out with violence toward their intimate partners due to their impulsive personalities (Dutton 1995). Holtzworth-Munroe and Stuart (1994) presented a similar explanation that incorporated genetic factors and childhood experiences with families and friends. Their developmental model of marital violence points to a genetic predisposition for impulsive and aggressive behavior, childhood exposure to family violence and contact with deviant peers as early predictors of IPV perpetration.

The role of social learning in IPV is empirically supported in the literature (Cunradi et al. 1999; Frias and Angel 2005; Hotaling and Sugarman 1986; Markowitz 2001; Weaver et al. 1997; Whitfield et al. 2003) and is incorporated in contemporary, multilevel explanations. Bandura (1977) explained IPV perpetration and victimization as a result of exposure and modeling in childhood. Specifically, children observe the conflict-resolution techniques, or lack thereof, used in their homes. These observations then become their reference for how to handle conflict within their own intimate relationships. According to this theory, the acceptance and/or use of violence is associated with victimization or exposure to abuse as a child (Lewis and Fremouw 2001).

Finally, a theory emerged that expanded on social learning and psychopathology, explaining IPV perpetration as a result of background and situational factors that may intensify conflict (Riggs and O'Leary 1989, 1996). The background factors associated

with violence include, but are not limited to, childhood exposure to abuse, prior use of violence, acceptance of aggression as an appropriate mechanism for handling conflict, and psychopathology. Riggs and O'Leary (1989) posited that individuals exhibiting these aforementioned characteristics were more likely to resort to using violence against intimates if they also experienced situational factors such as interpersonal conflict, substance abuse, or they expected violence during conflict.

These theories have each received some empirical support. However, their explanatory power is limited by their emphasis on individual and family characteristics, discounting the context in which IPV occurs. Research on theories of psychopathology does not provide consistent patterns among victims or batterers (Alexander 1993; Hotaling and Sugarman 1986); social learning theory explains how violence is learned, but fails to explain why many individuals exposed to violence become neither perpetrators nor victims (Alexander, Moore and Alexander 1991; Gwartney-Gibbs et al. 1987; Riggs et al. 2000). Consequently, this background-situational model has not been fully effective in explaining IPV (Riggs and O'Leary 1996). The limitations stemming from exclusively emphasizing individual levels of analysis highlight the inability of these theories to fully explain the occurrence of IPV. However, because of their empirical support and partial explanations of violence, some scholars are incorporating elements of these theories in more comprehensive theoretical frameworks (Bell and Naugle 2008).

### ***Sociocultural Theories***

#### ***Competing Perspectives***

More recent theoretical developments on the causes of IPV have been guided by two dominant competing paradigms: the feminist approach and the family violence

perspective. Several theories, ranging in levels of analysis, have been proposed using each approach. While the models put forth by both perspectives recognize the significance of socialization in explanations of IPV, they vary substantially in their definitions of IPV, view of perpetrators, and beliefs about the most important causal mechanisms underlying perpetration (Gelles and Straus 1988). Their conceptually different definitions of IPV have led to contradictory findings regarding patterns of abuse, creating a highly contentious debate regarding the role of gender (Anderson 1997; Cano and Vivian 2003; Dasgupta 2002; Dobash and Dobash 2004; Dutton and Nicholls 2005; Jasinski 2001; Johnson 1995, 2006; 2011; Kimmel 2002; Kurz 1989).

The major disagreement between these two approaches is definitional. Specifically, it lies in feminist researchers' use of a broader definition of IPV, which refers to physical aggression, sexual coercion, and/or emotional/psychological abuse involving use of tactics of power and control on an intimate partner, while family violence researchers define IPV exclusively as a physical assault on an intimate partner (Allen 2011). These definitions capture different populations of victims and perpetrators, thereby creating contradictory findings about gender symmetry in IPV. Feminist theory asserts that IPV is mainly a male-perpetrated phenomenon against women (Damant et al. 2008, Dobash and Dobash 1979; Dobash, et al. 1992; Hamel 2009; Heise et al. 1994), while family violence research has found that women are just as likely as men to engage in IPV perpetration (Browning and Dutton 1986; Steinmetz 1978; Straus and Gelles 1986, 1990). This disagreement provides the basis for the gender symmetry debate, which will be discussed later in this chapter

The lack of negotiation between these two perspectives is based on differences in the major tenets of each approach. For example, feminist scholars see patriarchy as the main cause of IPV, whereas family violence researchers see it as one factor that interacts with a larger set of variables related to structural inequality (Anderson 1997; Johnson 1995). Furthermore, acknowledging gender symmetry would refute a central tenet in the feminist approach, namely the view of IPV as a tool of female oppression by males. The frameworks of each of these perspectives will now be explained, as well as the major criticisms of each. The implications of these competing views will then be discussed in terms of the current state of IPV research and for the purposes of this dissertation.

### *Feminist Perspective*

The second wave of feminism's focus on power and control issues in heterosexual intimate relationships led to the development of feminist theoretical explanations of IPV. Rather than focus exclusively on batterer characteristics and relationship dynamics, these perspectives pay particular attention to the positions occupied by men and women in society. The context in which IPV occurs is of greater importance than why individual males become perpetrators because, as Dutton (1994) emphasizes, all men benefit from female subordination and dependence, although they do not all victimize their intimate partners. Under this perspective, violence is a basic component of society because it is a way for men to preserve control over women (Anderson 1997; McPhail et al. 2007).

Scholars operating within this perspective emphasize the role of male domination in American society and thus attribute IPV to the unequal distribution of power between men and women (Anderson 1997; Bograd, 1988; Brownmiller 1975; Burgess and Draper 1989; Dobash and Dobash, 1979; McPhail et al. 2007; Pence 1983; Walker, 1979; Yllo

1984). In addition, they argue that social institutions reinforce and reproduce the patriarchal order, successfully maintaining existing structural inequalities and reproducing a patriarchal culture that tolerates IPV (Dobash and Dobash 1979). Feminists point to gender socialization as a key contributor in the perpetuation of patriarchal culture by teaching children socially-approved gender-appropriate roles that place women in an inferior status as compared to men (Dobash and Dobash 1977; Walker 1984). Institutions such as the family, schools, the media and the legal system transmit patriarchal messages that are internalized by individuals from an early age and lead to the normalization of IPV (Barnes 1999).

Researchers working within feminist frameworks have developed theories that focus on power and control to explain the existence of IPV as a systematic form of female oppression (Dobash and Dobash 1979; Yllo 1993). Central to these explanations is the relationship between patriarchy, male privilege and male domination. Patriarchy fosters male privilege through institutional arrangements that give males control over resources and decision-making, therefore achieving male domination (Bui and Morash 1999). From this perspective, having less power means that females are more prone to abuse (Demant et al. 2008; Hamel 2009). For example, Dobash and Dobash's patriarchy theory (1979) describes violence as a tool for female subordination that is tolerated because of the culture created by the patriarchal system and reproduced through its norms and laws. Consequently, male domination is typified as a form of instrumental aggression enacted in several facets of society, the most important being the institution of the family because of the legacy of the historical view of women as the property of their husbands (Bograd 1988).

The importance of family dynamics has been depicted in studies that show a positive relationship between IPV perpetration and adherence to traditional gender values by male partners (Leonard and Senchak 1996; Smith 1990). The significance of gender roles within families experiencing IPV is further highlighted by Dobash et al. (2007). In their study of lethal and non-lethal IPV, they found that perpetrators of the most severe abuse were likely to have “conventional” childhoods, where the mother was a homemaker and the father was employed in a white-collar occupation. Feminist theorists argue that this type of family structure delineates power within the marriage, such that the woman was subordinate and confined to the private sphere and the man was dominant and operates in the public and private arenas.

Several of the relationships posited by feminist approaches have been well-established in the literature. For example, studies have found support for the association between patriarchal social order and rates of IPV (Yllo 1984; Yllo and Straus 1984), as well as the inverse relationship between women’s economic and domestic authority and IPV victimization (Levinson 1989). Feminist theories have also been instrumental in shaping responses to IPV, as evidenced by the application of their theories in intervention strategies founded on the power and control wheel (Pence and Paymar 1993).

The third wave of feminism arose from a critique of the inadequacies of the second wave’s politics, specifically the overgeneralization of the experiences of white, middle-class, heterosexual women and subsequent neglect of acknowledgement of marginalized identities (Mann and Huffman 2005). Central to the discourse of the third wave was the development of intersectionality theory, which was first employed in the context of black women’s labor market experiences and later applied to IPV victimization



(Crenshaw 1989, 1991). Intersectionality called for the recognition of intragroup difference and a shift in thinking from gender as the primary focus of analysis to a greater emphasis on the intersectionality between gender and other interlocking systems of oppression such as race, class, and national origin to name a few (Collins 2000; Crenshaw 1991; McPhail et al. 2007). Crenshaw (1991) explains that the experience of IPV victimization by women of color is shaped by other dimensions of their identity such as race and class; however policies and practices rarely reflect these intersections and create the further disempowerment of marginalized victims. She further differentiates between structural, political, and representational intersectionality, all of which affect the experiences of women of color. Structural intersectionality refers to experiences within political and social systems and will be further discussed later in terms of the experiences of immigrant victims. Political intersectionality refers to the fact that women of color are often located between conflicting political issues, such as choosing whether to respond to race or gender, which theorists assert is inadequate in serving their needs. Finally, representational intersectionality refers to the ways in which women of color are devalued in the representations of popular culture (Crenshaw 1989, 1991).

Intersectionality has greatly influenced contemporary feminist literature on IPV where there is now a critical view of single-factor explanations of causation and therefore a shift away from viewing patriarchy as the only determinant and a move toward prioritizing gender, yet recognizing how it is influenced by other social categories (Bograd 1999; DeKeseredy 2011; Sokoloff and DuPont 2005). The applicability of intersectionality theory can be seen in nested ecological models that account for

interlocking systems of oppression in the prevalence of IPV and the implications of these studies findings (Conwill 2010).

In conjunction with the incorporation of intersectionality in IPV theory, the inclusion of masculinity studies and recognition of policy-driven gendered violence have also been critical to advancing understanding of IPV. Similar to the recognition of whiteness in race theory, masculinity studies were a significant development in gender research, making visible gender in relation to men, recognizing the social position of males in the gender hierarchy associated with patriarchal order, and the fact that masculinity is indeed a social construction (Kimmel 1990). According to research, the construction of masculinity exudes dominance and violence frequently viewed as the most apparent indicator of one's manhood. In relation to IPV, gender role socialization (Crowell and Burgess 1996; Harway and O'Neil 1999) and pressure to conform to gender norms and expectations (O'Neil and Nadeau 1999) are just two of the theoretical explanations of the association between masculinity and this type of violence.

An increasing number of studies are also focusing on a form of gender violence enacted on women by crime control policies that have inadvertently resulted in greater state control of women. Coker (2001) points to what she terms as "mandatory policies" to highlight the gender-based control of women, specifically IPV victims. Mandatory arrest laws and no-drop prosecution policies were both aimed at producing batterer accountability and protecting victims, however they have both resulted in the disempowerment of victims by not allowing victims to choose whether to have their partners arrested or charged, which at times is not in their best interest and may question their well-being (Coker 2001).

### *Family Violence Perspective*

While the main objective of the feminist approach is to determine why men victimize their intimate partners, family violence researchers are interested in the nature and causes of family violence (Gelles 1974; Straus, Gelles and Steinmetz 1981). This perspective shifts the focus away from gender, emphasizing family structure, rather than patriarchy, as the main cause of IPV (Kurz 1989). More specifically, they define IPV as a learned behavior that is transmitted intergenerationally, is used to address conflicts of interest within the family, and may be used by women and men alike (Straus 1977). Under this general framework, IPV is a systemic family problem and a response to cultural and structural stressors (Hampton 1999; Straus et al. 1981). Straus (2008) describes these stressors as stemming from the interaction of familial socialization patterns and contextual factors. Under this perspective, social, cultural, individual and familial factors impact family dynamics, and they can in turn lead to violence.

Several theories have been developed under this approach to explain the processes by which stressors can increase the likelihood of IPV. For example, family stress theory describes IPV as arising from an imbalance between demands and the resources available to fulfill those demands (Kurt-Swanger and Petcosky 2003). According to this theory, the presence of psychosocial stressors would increase tensions within the family, and increase the likelihood of IPV (Straus, Gelles and Steinmetz 1980). This relationship has been supported by studies that find higher levels of IPV in lower-income families (Cunradi, Caetano and Schafer 2002; MacMillan and Gartner 1999; Pozo et al 2004; Villareal 2007), specifically where conflict is high and there is a lack of resources to cope

with related stress (Coleman and Straus 1986; Gelles 1980; Leonard and Senchak 1996; Mihalic and Elliott 1997).

Resource theory also points to a lack of resources as a potential cause of abuse. For example, it explains that the more resources an individual has the more power they can exert over their intimate partner (Goode 1971). However, the more resources individuals have, the less likely they are to actually use violence. Therefore, violence is explained as being most common among individuals with few or no resources because violence is the only way for them to gain power (Gelles 1985). Power imbalances between intimate partners can also prompt abuse by increasing tension with family relationships and the risk of aggression (Straus 1977). The proposition is supported by research showing low levels of physical IPV among more egalitarian couples (Coleman and Straus 1986; Gray-Little, Baucom, and Hamby 1996). Of importance here is that these theories do not specify that power imbalances naturally exist or that tension arises under certain gendered interactions; rather, they simply assert that whoever holds the least power is at greater risk of abuse.

### ***Immigrant Vulnerability to IPV: Feminist and Family Violence Explanations***

Research on IPV among immigrants focuses exclusively on women as victims and men as batterers. This trend may be attributed to beliefs about the lower social status of women, as compared to their male counterparts, upon entering the U.S. (Rumbaut 1989). Gender differences have also been noted in levels of human capital, further reflecting legacies of female subordination in their home countries (Rumbaut 1989). Raj and Silverman (2002) theorize that the culture, context and legal status of immigrant

women may be used as tactics of control, making it difficult for them to seek assistance and making them more vulnerable to IPV victimization.

An extensive review of the existing literature on IPV among immigrants yielded one study differentiating feminist and family violence approaches (see Perilla, Bakeman, and Norris 1994). Nevertheless, conclusions can be inferred based on the tenets of each perspective. In their study of abused Latinas, Perilla, Bakeman, and Norris (1994) argue that since feminist theorists focus on the unequal distribution of power between men and women, certain aspects of foreign cultures may exacerbate this discrepancy. They point to machismo and mutuality as two concepts of interest in the feminist literature on IPV. Machismo refers to the idea of the strong, aggressive male who rejects feminine virtues and practices complete dominance over his wife and children, consequently undermining the existence of mutuality, or equality, within relationships. Alternatively, economic hardship upon moving to the United States may create opportunities for women to enter the labor force and may shift power differentials among couples (Fernandez 1997). The feminist approach would suggest that if immigrant women were able to gain economic and domestic authority as a result of their labor participation, mutuality would increase, and then their vulnerability to victimization would decrease.

Perilla and colleagues (1994) assert that family violence theorists would focus on the socioeconomic status of immigrant women in relation to that of their partners. They explain that increased dependence on men for the fulfillment of economic needs may increase the likelihood that these women remain in abusive relationships (Perilla et al. 1994). However, assertions of gender symmetry in IPV by family violence theorists suggest that gender would not be the key issue but rather that factors such as

unemployment, economic hardships and lack of coping resources within families would make men and women more vulnerable to IPV. Some scholars have noted that upon arriving in the US, women have greater opportunities for employment and may have more access to economic networks, while immigrant men commonly experience downward mobility because of language barriers (Kruttschnitt 1995; Morash and Bui 2000). According to the family violence perspective, immigrant men may become more vulnerable to IPV if their female counterparts become more successful in the U.S. labor market and subsequently maintain more power within the family. Alternatively, the feminist approach would suggest that in these settings, gender role reversal may lower the self-esteem of immigrant men, thereby increasing marital conflict (Min 2001). Frustration over perceived role reversal would increase the likelihood of IPV perpetration.

It is also important to consider the role of structural intersectionality as it relates to the multiple vulnerabilities of immigrant victims of IPV. Crenshaw (1991) points to the Immigration and Nationality Act to depict the unique position of these victims through a lens of feminist intersectionality. The marriage fraud provisions placed by the act left immigrant victims of IPV with a choice due to their status as women and immigrants: choosing between protection from their batterer or protection from deportation. Even after amending the act to include a waiver provision that protected female victims of IPV, many are unable to meet the conditions of the waiver or are faced with cultural barriers that discourage them to seek assistance (Crenshaw 1991).

### ***Implications of Existing Debates***

The disagreement between feminist and family violence approaches in IPV literature is far-reaching. The lack of reconciliation between the two approaches has

caused confusion regarding the measurements, nature, extent and patterns of IPV, creating uncertainty as to the directions of future research. To review, feminist theorists maintain that a broad definition of IPV, inclusive of power and control tactics, should be used in research because it captures a wider range of abuse and avoids undercounting perpetration- an assertion they make against family violence researchers' use of the Conflict Tactics Scale (Dobash and Dobash 2004; O'Leary 2000; White et al. 2000). Family violence theorists defend their use of narrow definitions exclusive of physical assaults by emphasizing that they are the most clearly recognized, adding that physical and non-physical IPV differ in significant ways (Smithey and Straus 2004).

In terms of the patterns of IPV, supporters of the feminist perspective reject the notion of gender symmetry and insist that IPV is mainly perpetrated by men against women (Bograd 1988). This view has been criticized as being one-dimensional and failing to explain why community studies find bidirectional patterns of IPV (Brush 1990; Caetano, Ramisetty-Mikler and Field 2005; Magdol et al. 1997; Tolan, Gorman-Smith and Henry 2006). Additionally, many who adhere to the feminist approach assert that female violence occurs commonly in the context of self-defense or retaliation (Dobash and Dobash 2000; Saunders 1988), while a common motive among males is to control their partners (DeKeseredy et al. 1997; Ellis and Stuckless 1996). Family violence researchers criticize the feminist explanation for female perpetration as being solely theoretical, pointing to findings that women are as violent men (Bookwala et al. 1992; Foshee 1996; Magdol et al. 1998) and that men in heterosexual relationships are victimized at rates that approximate women (Archer 2000; Fiebert 1997; Morse 1995). Moreover, they assert that the feminist perspective fails to explain research findings of

high rates of violence in lesbian relationships in general (Bologna, Waterman and Dawson 1987; Lie and Gentlewarrior 1991; Lockhart, White, Causby and Isaac 1994), when compared to past heterosexual relationships (Lie, Schilit, Bush, Montague and Reyes 1991), and among gay men.

The empirical data previously cited depicts female-perpetrated IPV as it occurring and with greater frequency than traditionally assumed. This significant finding in the field contradicts widespread beliefs about IPV and questions the popular view of this violence as a “female” problem. DeMaris and colleagues (2003) describe the neglect of the reciprocal nature of IPV as a limitation of previous work in the field. Still, feminist theorists continue to argue against findings of widespread female-perpetrated IPV and defend their perspective by citing the severe limitations and overreliance on the CTS (Straus 1979) and CTS2 (Straus et al. 1996). The CTS utilizes 18 items that measure three ways of managing conflict in intimate relationships, these are through: 1) reasoning, 2) verbal aggression, and 3) physical violence.

Critics of the CTS point to four fundamental flaws. First, there is an embedded assumption in the tool that asserts that violence is going to be the result of an argument and that it is family-based, not gender-specific. Critics argue that IPV does not always stem from disagreements or is utilized as a mechanism to resolve conflict, but rather that perpetrators often use IPV as a means of control and that men are more likely to enact control-instigated assault (DeKeseredy and Schwartz 1998). Another flaw is that the CTS ranks the three aforementioned way of handling conflict on a “hierarchy of abuse based on seriousness” (Kelly 1987). Furthermore, it assumes that physical violence is always more serious than verbal aggression when in fact some studies have found that



psychological abuse can be as harmful or have more detrimental consequences (Follingstad et al. 1990; Walker 1984). A third criticism is that the CTS only captures specific types of abuse and neglects other serious forms such as sexual assault, which is primarily used against women (DeKeseredy and Schwartz 1998). Finally, the most significant limitation is that while it accounts for the frequency of IPV over the last year, it does not provide any information on the context in which IPV occurs and therefore leaves questions unanswered as to the initiation of violence, the intention of its use, its history between partners, and any patterns that may exist (DeKeseredy and Schwartz 1998).

The development of the CTS2 attempted to address some of these limitations and thus added additional physical and psychological items, the inclusion of sexual assault, and differentiation between events causing injury, it continues to discount the context in which IPV occurs and locates it as a matter of settling disputes rather than as a means of control. Therefore, it is argued that use of the CTS and CTS2 will continue to yield findings suggestive of gender symmetry in IPV and neglect to recognize the different motives for engaging in violence (DeKeseredy and Schwartz 1998). Still, supporters of the CTS insist that it is a reliable tool in collecting highly sensitive data on IPV (Smith 1987). The delineation of different types of IPV that can be explained by varying etiologies attempts to reconcile the continued disagreement among these two approaches (Graham-Kevan and Archer 2003; Holtzworth-Munroe et al. 2000; Holtzworth-Munroe and Stuart 1994; Johnston and Campbell 1993; Leone et al. 2004; MacMillan and Gartner 1999; Olson 2002).

### *Johnson's Typology of IPV*

Johnson and colleagues (1995, 1996; Johnson and Ferraro 2000; Johnson and Leone 2005; Kelly and Johnson 2008; Leone, Johnson, Cohan and Lloyd 2004) developed and modified a typology of IPV that categorized incidents according to the degree of control exerted by one or both partners as well as the pattern of violence within relationships. The issues of retaliation and separation were also incorporated into the framework. Johnson (1999) explained the contradictory findings that sparked the symmetry debate as the result of sampling procedures whereby the two approaches were examining different populations.

To date, the typology includes five types of IPV incidents: intimate terrorism, situational couple violence, violence resistance, mutual violent control, and separation-instigated violence. *Intimate terrorism* is a primarily male-perpetrated form of IPV characterized by a pattern of coercive control by one partner. Incidents of intimate terrorism often increase in severity and are assumed to be one-sided. This type most closely resembles that of the feminist perspective and samples chosen in IPV-related settings (e.g. shelters, emergency rooms, victim service centers) are most likely to experience this form of IPV (Johnson 2008). This is in line with the violence described by feminist theorists utilizing female samples from emergency rooms and IPV shelters (Saunders 1988; Walker 1979).

Johnson (2008) describes *situational couple violence* as male- or female-perpetrated IPV that is not associated with issues of control and often surfaces during moments of conflict. Community-studies, such as those used by family violence researchers, are most likely to capture this type of IPV (Johnson 2008). Situational

violence usually involves moderate acts and may be bidirectional. The third type of IPV, *violent resistance*, occurs as a result of resistance by women to intimate terrorism and is most likely to be found in shelter samples due to the initial reasons that forced them to seek shelter (Johnson 2006, 2008). Johnson (2006) noted that this can be considered the “self-defense” population in feminist discussion.

Johnson and Ferraro (2000) describe *mutual violent control* as an uncommon form of bidirectional IPV between mutually controlling partners using violent and nonviolent acts. Finally, *separation-instigated violence* describes an atypical act of violence by an individual with no history of perpetration, upon the ending of a relationship. Johnson (2008) says this form of IPV is symmetrical and that the perpetrator is usually the individual that was left. Preliminary support was found for Johnson’s typology (1995; Johnson and Ferraro 2000), specifically in the descriptions of intimate terrorism and situational couple violence (Graham-Kevan and Archer 2003; Johnson 2006; Rosen et al. 2005). While the data used in this study does not allow for examination of Johnson’s typology, it provides a useful framework for attempting to differentiate IPV in terms of directionality.

Recently, Johnson (2011) addressed the position of feminists in the gender symmetry debate as it relates to his typology of IPV. A significant point he makes is the evolution of feminist views on female-perpetrated violence. Specifically, he argues that while early feminists associated with the Battered Women’s Movement viewed IPV as a male-perpetrated phenomenon against women, this was primarily a result of the victims they came into contact with at shelters or through law enforcement agencies. Furthermore, he posits that contemporary feminists recognize female-perpetrated

violence however hold that male-perpetrated IPV is more likely to produce fear and injuries (Johnson 2011). Johnson stresses differences among three types of violence outlined in his typology and the role of coercive control in each- 1) intimate terrorism, 2) violent resistance, and 3) situational couple violence. Intimate terrorism is not exclusive to male-perpetrators (see Cook 1997; Renzetti 1992; Hines and Douglas 2010) however is used most widely by males in heterosexual relationships and is centered on issues of power and control (Graham-Kevan and Archer 2003; Johnson, Ollus and Nevala 2008). The second type, violent resistance, is a response to violence and has little to do with coercive control. While intimate terrorism and violent resistance do not support gender symmetry in IPV, situational couple violence is the most gender symmetric as well as most common form. Its use as a means to resolve conflict through aggression gives rise to similar perpetration rates across the sexes (Kelly and Johnson 2008).

### ***Theoretical Limitations of Frameworks***

The gender symmetry debate impeded the development of more integrated approaches to IPV (Kelly and Johnson 2008). Nevertheless, it highlighted the need to acknowledge the heterogeneity of IPV experiences. Distinctions among types of IPV incidents (Johnson 1995, 1999; Johnson and Ferraro 2000) and batterer subtypes (Holtzworth-Munroe and Stuart 1994; Holtzworth-Munroe et al. 2000) have led to critical discussions concerning the explanatory powers of existing theoretical frameworks. While the theories developed under feminist and family violence approaches receive partial support in empirical literature, they cannot provide complete explanations for its occurrence. Furthermore, some researchers have argued that these existing theories have largely neglected ethnic and cultural factors potentially affecting IPV within subgroups

(see Barnes 1999; Wyatt 1994). This is especially relevant considering the influx of immigrants into the U.S. over the last several decades. The complex nature of IPV and established empirical support for the impact of individual and relationship characteristics, family dynamics, and social context in theories of IPV have led to a general agreement among scholars that IPV cannot be explained by a single cause or theory (Crowell and Burgess 1996).

The influence of community and societal factors on various forms of crime is well-established in criminological research, although its relationship to IPV has been largely overlooked because this violence is commonly enacted in private settings (Gelles 1983). Consequently, IPV research traditionally centered on the interpersonal characteristics of perpetrators, victims, or couples. Over the past decade, developments in the field have prompted researchers to consider the role that socioenvironmental factors may have on aggregate levels of IPV (Benson and Fox 2002; Benson et al. 2003; Browning 2002; Miles-Doan 1998; Van Wyk et al. 2003) and utilize integrated theoretical frameworks that account for IPV correlates at several levels of analysis (Edleson and Tolman 1992; Heise 1998).

### ***Ecological Models***

#### ***The Extension and Application of Social Disorganization Theory***

Over the past decade a growing body of research examines the effects of neighborhood factors on IPV, and studies in this area have centered largely on social disorganization theory. According to this theory, crime is reliant upon the conditions of an area, rather than the group who resides in that area (Akers and Sellers 2004). The incorporation of community context in this field of criminology can be traced back to

sociologists at the Chicago School, who began taking an ecological approach to crime in the 1920s. Park and Burgess (1925) introduced one of the first models explaining the spatial organization of urban areas. This model described the growth of cities as a result of concentration, competition, and dispersion. Upon examining area characteristics of Chicago, they predicted that fully-grown cities had five concentric zones, of which the business district was at the center. Their model posited that each zone had its own organization and structure, adding that the further a zone was from the center, the more affluent and desirable it would be (Park, Burgess, and McKenzie 1925).

Using Park's theory as a basis and Chicago as their study setting, Shaw and McKay (1942, 1969) examined neighborhood traits associated with crime rates. They found that the inner city displayed the most social disorganization, which is defined as the inability of residents to achieve common values and therefore exert social control to come together to solve community problems (Bursik 1988). Shaw and McKay concluded that low economic status, ethnic heterogeneity, and residential mobility were the three main structural factors that interrupted social organization and were responsible for variations in crime rates (Cullen and Agnew 2006). Underlying this rationale was the assumption that the more diverse a group of people were, the more likely there would be disagreements regarding norms and behaviors (Tittle 1989). Bursik (1988) further illustrated the processes of social disorganization theory by clarifying that crime was not directly caused by these structural factors, but rather that they worked together to impede the achievement of common goals among residents, lowering the ability of local organizations to control deviant behavior. Bursik's theory focused on the degree to which

neighborhoods can employ the interactional networks that tie community residents together to effectively regulate behavior (Cullen and Agnew 2006).

Extensions of social disorganization theory have been presented to address some of the main criticisms, emphasizing the role of strong relational networks in preventing crime in urban areas (Bursik and Grasmick 1993; Kornhauser 1978; Sampson and Groves 1989). Sampson and Groves (1989) presented a reformulation of social disorganization theory that accounted for the missing link between the structural problems and crime by introducing the concept of social ties. Using data from the British Crime Survey, they were able to test the effectiveness of theory in explaining variations in crime rates and establish support for Shaw and McKay's disorganizing structural factors. Sampson and Groves (1989) found that the effects of residential mobility, ethnic heterogeneity, and poverty on crime were mediated by variations in the supervision of teenage peer groups, the strength of local friendship networks, and the rate of local participation in formal and voluntary organizations. Similarly, Bursik and Grasmick's (1993) presentation of a three-level (personal, parochial and public) approach to community social control emphasized how neighborhood organization was shaped by networks of association. Critical to their theoretical extension was the importance of social ties among residents, creating common values such as the prevention of crime, and maintaining informal social control. While Bursik and Grasmick's model describes factors affecting the ability of community members to intervene, Sampson, Raudenbush and Earls (1997) introduced the concept of collective efficacy, which emphasized the willingness of community members to intervene in the maintenance of social order. The theory rests on the assumption that a society is organized when its members consent and follow the same general set of norms,

values and behaviors. Therefore, when there is agreement, there is trust among members and cohesion in the community, allowing exercise of social controls and leading to lower crime rates. While this analysis is only able to examine the structural factors described in social disorganization theory, some IPV research has been able to examine the mechanisms described above.

### ***Extension to IPV***

A handful of studies have examined neighborhood factors and IPV. Miles-Doan (1998) examined whether neighborhood structural characteristics can effectively explain IPV as well as it does other forms of violence. She found that IPV occurred most in neighborhoods characterized by high levels of unemployed men, poverty, and a large number of female-headed households. Her findings indicate that resource deprivation was positively related to IPV and acknowledges the essential role of community context in risk enhancement and in the development and reproduction of violence rates. Similarly, a study of race-specific rates of intimate assault found an increased risk of IPV arrests in areas with higher levels of neighborhood disadvantage (Wooldredge and Thistlethwaite 2003).

Browning (2002) extends social disorganization theory to explain the neighborhood level determinants of IPV. Through utilization of multiple datasets, Browning found a negative relationship between lethal and non-lethal IPV and collective efficacy, which is described as neighborhood cohesion and the community's ability to exert informal social control. According to Browning, collective efficacy in neighborhoods enables women to seek sources of assistance when they are victimized by intimate partners and exerts informal control on the prevalence of IPV in communities



with low tolerance for this type of crime. This regulatory effect is also evident in the work of Wooldredge and Thistlethwaite (2002). In their study of IPV arrestees, they found the relationship between legal controls and recidivism was conditioned by residential stability, whereby probation and jail sentences were associated with low rates of recidivism for offenders in neighborhoods with higher levels of residential stability. In IPV research, neighborhood dynamics are especially important when considering the social support networks of the community. The private nature of IPV and the interpersonal relations involved would seem to outweigh external agents of social control, but neighborhood dynamics are still important to consider because residents' perceptions of IPV affects reporting (Miles-Doan 1998).

The race-crime relationship has also been addressed in studies of IPV and social disorganization. Benson and colleagues (2004) presented some of the earliest research positing that the individual-level correlation between race and IPV could actually be explained by ecological context. Utilizing 1990 Census data, as well as national survey data on African American and white households, they found that rates of IPV vary by community context for both groups. IPV rates were highest for both groups in areas of high disadvantage and lowest in areas with the least disadvantage. Furthermore, when they compared whites and African Americans in similar community contexts, the relationship between race and IPV significantly decreased or disappeared. The reduction of the race differential combined with the finding that individual risk factors function similarly for both groups emphasizes the importance of neighborhood context. These findings are especially important when considering the heavy minority presence in

disadvantaged areas, as well as research suggesting that some structural effects, such as disinvestment, are stronger for minorities (Wooldredge and Thistlethwaite 2003).

### ***The immigrant-crime relationship***

One of social disorganization theory's key structural factors, ethnic heterogeneity, is especially important to account for considering the current population composition of the U.S., which is 12.9 percent foreign-born (Grieco et al. 2012). Social disorganization theory partially associated increases in immigration from Europe to the increase in crime in the early 1900s. Similar assumptions were made about the influx of Hispanic immigrants in the late twenty-first century (Martinez 2002). Currently there are two views on the relationship between immigration on crime. The historical perspective described immigration as a risk factor for crime despite research proving otherwise, while more recent views posit that immigration may actually serve as a protective factor against crime.

Shaw and McKay (1969) theorized that immigrant concentration in a neighborhood encouraged crime by reducing the opportunity for social control. As mentioned earlier, this was based on the assumption that heterogeneous groups lack a common value system, therefore inhibiting solidarity among members. Immigrants are assumed to experience negative social conditions such as economic disadvantage and social isolation that make them more susceptible to deviant behavior (Sampson and Bean 2006). While Shaw and McKay noted that the immigrant-crime connection was the result of the areas this population resided in and not the groups themselves, historical stereotypes about immigrants as crime-prone and xenophobia have lent support to the immigration-fostering-crime perceived relationship.

While the negative views of immigrants have reigned over the last several decades, historical and recent research provides a strikingly different view on the immigration-crime relationship (Desmond and Kubrin 2009; Lee, Martinez, and Rosenfeld 2001; Martinez and Lee 2000; Martinez, Lee and Nielsen 2004; Sampson, Morenoff and Raudenbush 2005). Studies have found that immigrants do not commit more crimes than the native-born (Butcher and Piehl 2008; Martinez 2002; Rumbaut, 2005) and that immigrant concentration may enable and strengthen social ties in neighborhoods thereby reducing the crime rate (Desmond and Kubrin 2009; Wright and Benson 2010). Sampson and Bean (2006) describe the beneficial effects of immigrant concentrations on neighborhood crime rates as the “immigrant paradox,” and they describe this phenomenon as a result of culture and social networks. The buffering effects of immigrant concentration on crime have been attributed to the cultural values immigrants bring with them, which are in opposition to the violence-accepting subcultures proposed to exist in poor communities (Sampson 2008). Others assert that immigrants often form strong social networks that foster cohesion among these groups leading to effective social control in neighborhoods (Chiswick and Miller 2005; Lee et al 2001; Martinez and Lee 2000; Martinez et al 2004; Nielsen, Lee, Martinez 2005; Portes and Rumbaut 2001).

According to social disorganization theory, immigrants would likely settle in areas of deprivation because of the lack of resources they bring with them to the United States. However, an important distinction must be made regarding settlement in these communities, namely that they can be viewed as “ghettos of last resort” which then implies forced settlement because of lack of other viable options, or “communities of choice” that immigrants willingly inhabit (Desmond and Kubrin 2009; Glaser, Park, and

Li 2003; Varady 2005). The difference between the two can have starkly different outcomes in terms of social networks. Portes and Zhou (1993) point out that individuals who choose to retain their immigrant values are sometimes considered to be the most successful. These immigrants *voluntarily* settle within close proximity, building an enclave where they can preserve their culture and advance opportunities for its members (Portes and Stepick 1993; Stepick et al. 2003). However, it is important to recognize that not all immigrants are given this opportunity.

Social networks created within immigrant-concentrated neighborhoods provide important resources for the foreign-born which they may not be able to access from mainstream society. Social ties can provide emotional support, as well as opportunities for employment and subsequent integration into American society (Grannovetter 1973; Portes 1998). Based on social disorganization theory, this would help prevent violence due to increased informal social control and greater social organization (Bursik and Grasmick 1993). In relation to IPV, social ties may provide the social support victims require to leave abusive relationships, both in an emotional sense and instrumentally by providing resources of assistance, and may make the violence publicly known, enabling the possibility of garnering subsequent disapproval and able to exert social controls over IPV (Van Wyk et al 2003).

### ***Conclusion***

As seen within the various theoretical frameworks used to examine IPV, the factors influencing perpetration and victimization exist at multiple levels of social organization, calling for more integrative models of explanation (Little and Kantor 2002). One example of this has been the use of ecological frameworks to explain IPV, thereby

incorporating individual, relational, community, and societal level variables to show how intimate relationships are shaped by personal characteristics, as well as cultural values and broader social structures (see Dutton 1985; Edleson and Tolman 1992; Heise 1998; Riger, Raja and Camacho 2002).

This chapter has delineated the historical development of IPV theory and research as a subdiscipline of criminology. Several of the points discussed are of particular importance: (1) the disagreement on the role of gender in IPV directionality based on competing perspectives, (2) the shift away from single-level explanations to multilevel approaches, (3) the acknowledgement of neighborhood influence on IPV despite its often private settings, and (4) the overwhelming lack of evidence for an immigrant-fostering-crime relationship, contrary to negative public opinion. These are further discussed in the following chapter, which provides an overview of the existing empirical literature on IPV.

## Chapter 3

### LITERATURE REVIEW

Studies using the various frameworks discussed in the previous chapter have uncovered associations between IPV incidence and numerous factors. These can broadly be categorized as individual characteristics, relational features, and neighborhood factors. This chapter will review empirical literature on the known correlates of IPV, making distinctions among factors that may be of particular interest when examining immigrant populations. Based on the existing literature, hypotheses will be presented at the end of the review.

#### *Individual –level characteristics*

Since sparking interest in the academic arena, most of the research on IPV has focused on the interpersonal characteristics of partners. Studies on individual-level traits have successfully identified factors that increase the risk of perpetration and those that enhance victim vulnerability. Feminists have successfully portrayed IPV victims as predominantly, if not exclusively, female and perpetrators as males. This view has pervaded scientific research and guided much of the work on risk characteristics. In the last decade, however, an increased interest in same-sex IPV research and the gender symmetry debate has encouraged the examination of gender differences in IPV victimization and perpetration. Although findings regarding male victims and female perpetrators are still quite limited, significant known differences in risk indicators will be incorporated throughout the review.

Most research suggests age is a fairly consistent variable in predicting victimization and perpetration, with younger adults more likely to experience IPV

(Caetano, Vaeth, and Ramisetty-Mikler 2008). In addition, ethnic minorities are more likely to be victims and perpetrators of abuse, largely due to broader socioeconomic factors and conditions (Dugan et al. 1999; Fox et al. 2002; Hotaling and Sugarman 1990; Melzer 2002; Moffitt and Caspi 1999; Pyke 1996). While these factors have been associated with both perpetration and victimization, the processes by which they impact couple dynamics may vary significantly, as is evident in the review below.

### *Perpetrator Characteristics*

IPV perpetration has been associated with a number of risk factors. These include race/ethnicity (Goetting 1989; Greenfield, et al 1996; Hampton, Gelles and Harrop 1989; Hampton and Gelles 1994; Hotaling and Sugarman 1990; Jasinski 2001; Sorenson 1996), socioeconomic status (DeMaris et al. 2003; Fox et al. 2002; Hotaling and Sugarman 1990; Lockhart 1987; MacMillan and Gartner 1999; Melzer 2002; Moffitt and Caspi 1999; Pyke 1996), educational attainment (Magdol et al. 1998b; Moffitt and Caspi 1999), criminal history (Moffitt and Caspi 1999; Moffitt et al. 2000; Sorenson, Upchurch and Shen 2006), mental health (Moffitt and Caspi 1999; Fischbach and Herbert 1997), substance abuse (Coker et al. 2000; Sharps et al. 2001a; Stalans and Ritchie 2008; Swatt and He 2006), as well as a number of personality traits (Brownridge 2004; Guerrero, Spitzberg, and Yoshimura 2004; Hannawa et al. 2006; Langan and Dawson 1995; Moffitt and Caspi 1999; O'Donnell et al. 2006; Puente and Cohen 2003; Serran and Firestone 2004; Stets 1991; Stith et al. 2004; Tolan et al. 2006).

Race and ethnicity have become prominent issues in the study of IPV, mainly because of its high prevalence in minority communities (Hampton and Gelles 1994; Tjaden and Thoennes 2000). While IPV is considered most common among members of

minority groups (Johnson 1995), studies frequently explain the race-IPV relationship as a consequence of a multitude of other factors, such as socioeconomic status, relational characteristics, and substance abuse (Campbell et al. 2002; DeMaris et al. 2003; Lockhart 1987; MacMillan and Gartner 1999). Although they do not seem to be key factors per se, race and ethnicity are still important to consider due to their effects on other factors such as economic marginality, residence, familial relations and social support, as well as their effect on adequate interventions and policies.

Low socioeconomic status has been found to be one of the most consistent predictors of IPV (Fox et al. 2002; Greenfield et al. 1998; Hotaling and Sugarman 1990; Melzer 2002; Moffitt and Caspi 1999; Pyke 1996; Rennison and Welchans 2000; Tjaden and Thoennes 1998). While it has been established that IPV occurs among couples in all social classes, research suggests that perpetrators are more likely to be of low socioeconomic status (Fox et al. 2002; Hotaling and Sugarman 1990; Moffitt and Caspi 1999). This relationship has been attributed to broader issues of power inequalities and degrees of adherence to traditional gender beliefs (Atkinson, Greenstein, and Lang 2005; MacMillan and Gartner 1999; Messerschmitt 1993; Pyke 1996; Stith et al. 2004; Sugarman and Frankel 1996).

Research on male-to-female perpetration has shown that families adhering to patriarchal values are more likely to experience IPV (Stith et al. 2004). However, the actual degree of adherence to these values and willingness to use violence to display power varies according to socioeconomic status. For example, Pyke (1996) found that lower class men lacking power in the labor market produced a type of hypermasculinity at home to compensate for their subordinate status at work (see also Krienert 2003;



Messerschmitt 1993). The use of violence as a means of maintaining male dominance has also been found among couples where there is an imbalance of economic power, with female partners providing greater economic contributions experiencing greater risk of victimization (Macmillan and Gartner 1999).

While employment status is important to consider in IPV perpetration because it determines household income flows, Fox and colleagues (2002) suggest that the type of employment one holds may be of greater significance (Fox et al. 2002). While their examination of household economic indicators did not find a significant association between employment status and the likelihood of IPV perpetration, spillover stress from low-status employment did increase the risk of male-perpetrated IPV (see also VanBuren Trachtenberg, Anderson, and Sabatelli 2009). Melzer (2002) found similar evidence of occupational spillover and risk, where men employed in positions that were violent, dangerous, female-oriented or entailed little authority were more likely than those in managerial positions or who do not use interpersonal violence at work, to use violence against their female intimate partners. Variations in educational attainment are closely linked to the socioeconomic status and occupational success of offenders (Cattaneo 2010). Studies examining childhood and adolescent background factors report that offenders tend to have a history of poor academic achievement (Moffitt and Caspi 1999) and that dropping out of school is a reliable predictor of subsequent partner abuse (Magdol et al. 1998b).

The co-occurrence of IPV and substance abuse is well-established in the empirical literature (Coker et al. 2000; Easton, Swan and Sinha 2000; Gondolf 1999; Kantor and Straus 1989; Leonard and Senchak 1996; Sharps et al. 2001a; Stalans and Ritchie 2008;

Swatt and He 2006; Thompson and Kingree 2006). Several studies have described alcohol as a precipitator in IPV incidents, significantly increasing the likelihood of lethal and non-lethal IPV perpetration (Sharps et al. 2001a). This correlation was supported by Fals-Stewart's (2003) longitudinal analysis of men entering treatment centers. The study indicated that the likelihood of IPV perpetration against female partners increased 8-fold among men in domestic violence treatment centers, and 11-fold among those in alcohol treatment centers, on days when alcohol was consumed. Similarly, Kantor and Straus (1990) found an association between heavy drinking and male-perpetrated IPV. However, they suggest that alcohol use alone does not cause the abuse but rather interacts with occupational status and norms concerning violence to increase risk among couples. The intersection between class and substance abuse is further emphasized by Stalans and Ritchie (2008) who find that drugs are used as coping mechanisms by members of the lower classes, exacerbating their likelihood of IPV.

IPV perpetration has also been linked to the use of other substances (Kantor and Straus 1989), with some asserting that drug use among perpetrators is a stronger predictor than alcohol use (Stuart et al. 2008). Specifically, research has cited a strong relationship between cocaine use and increased aggression among intimate partners (Fals-Stewart, Golden, and Schumacher 2003; Logan et al. 2001). For example, Parrott et al. (2003) conducted a two-part study on individuals recruited from substance abuse treatment programs and found that respondents classified as cocaine-dependent were more likely to perpetrate physical assault and psychological aggression as compared to respondents who were non-dependent. Furthermore, the highest rates of perpetration among the sample were reported by respondents with comorbid conditions, specifically, cocaine

dependency and post-traumatic stress disorder (PTSD). Research has also suggested that perpetrators with a history of alcohol abuse often also engage in drug abuse (Miller 1990). The significance of the dual use of alcohol and drug abuse in the occurrence of IPV has been depicted by the finding that cocaine use among alcoholics increases the likelihood of IPV (Murphy et al. 2001).

Some scholars have asserted that childhood exposure to violence (Cunradi et al. 1999; Markowitz 2001), prior victimization of partners (McFarlane et al. 1999; Moffitt and Caspi 1999; Tolan et al. 2006) and/or a history of delinquency (Moffitt and Caspi 1999; Moffitt et al. 2000; Sorenson, Upchurch and Shen 2006) are among the strongest predictors of IPV perpetration. For example, Whitfield and colleagues (2003) examined the effects of childhood sexual abuse and physical abuse, as well as exposure to family IPV, on future experiences with IPV. Using data from the Adverse Childhood Experiences Study, they found that all three violent childhood exposures more than doubled the risk of perpetration and victimization. Furthermore, the strength of this association increased with frequency of exposure. In terms of prior acts of delinquency, Moffitt and Caspi (1999) found that half of the males convicted of non-IPV violent crime in their study physically abused their intimate partners. Incidents of domestic violence with previous partners also significantly increased the likelihood of subsequent IPV perpetration with new partners (Moracco, Runyan and Butts 1998; Swatt and He 2006).

Literature on the relationship between mental health and the propensity for IPV perpetration has been mixed although partial support has been found (Coben and Friedman 2002; Moffitt and Caspi 1999). Utilizing data from the Dunedin Multidisciplinary Health and Development Study, Moffitt and Caspi (1999) found that

88% of the male perpetrators of IPV in their sample had one or more mental disorders such as depression, antisocial personality disorder and schizophrenia. Similarly, Sharps and colleagues (2001b) reported that a third of the perpetrators in their study were described as being in poor mental health.

More consistent results are found between several personality traits and IPV perpetration. Specifically, proprietariness (Burch and Gallup 2004; Campanelli and Gilson 2002; Hannawa et al. 2006; Wilson, Johnson and Daly 1995), extreme jealousy (Guerrero et al. 2004; Langan and Dawson 1995; Stith et al. 2004; Sugarman and Hotaling 1989), possessiveness (Brownridge 2004; Serran and Firestone 2004; Stets 1991), impulsivity (Cunradi et al. 1999; Schafer, Caetano, and Cunradi 2004), anger expression (Eckhardt, Barbour and Davison 1998; Eckhardt, Jamison and Watts 2002), and aggressiveness (Moffitt and Caspi 1999; O'Donnell et al. 2006) have been identified as predictors of IPV perpetration.

Proprietariness within intimate relationships involves viewing one's partner as personal property (Wilson and Daly 1993, 1998). A survey of undergraduate students revealed that males were more likely than females to display this characteristic (Hannawa et al. 2006) and studies focusing on male-perpetrated IPV have identified this sense of partner ownership as increasing women's vulnerability to IPV victimization (Burch and Gallup 2004; Wilson et al. 1995). Additionally, gender differences in proprietariness are further emphasized by studies identifying it as a key motivator of intimate partner femicide (Campbell 1992; Crawford and Gartner 1992; Daly, Wiseman, and Wilson 1997). Possessiveness (Brownridge 2004; Serran and Firestone 2004; Stets 1991) and extreme jealousy (Holtzworth-Munroe, Stuart, and Hutchinson 1997; Foran and O'Leary

2008; Guerrero et al. 2004; Langan and Dawson 1995; Puente and Cohen 2003; Sugarman and Hotaling 1989) are two other significant individual-level predictors of IPV perpetration linked to ownership and centrality issues, which refers to a perpetrator's belief that the victim should not have a life separate from or a future without them. This often involves access to and isolation of the victim, possessiveness about a partner, and rage over any type of perceived betrayal (Websdale 1999).

Perpetrators of IPV are also more likely than non-offenders to be impulsive (Cunradi et al. 1999; Schafer, Caetano, and Cunradi 2004) and lack the ability to articulate feelings of anger (Barbour et al. 1998). Eckhardt and colleagues (Barbour and Davison 1998; Jamison and Watts 2002) assert that the inability to effectively articulate feelings during conflict causes these individuals to utilize threats and insults in the place of affective communication. Finally, studies have found that a history of aggressive behavior is a risk factor for partner abuse (O'Donnell et al 2006). Moffit and Caspi (1999) found that juvenile offending with physical aggression is the strongest predictor of IPV perpetration for males and females.

### *Victim Vulnerability*

IPV occurs within all social groups regardless of defining sociodemographic features. However, research on victim vulnerability has helped identify characteristics that increase an individual's likelihood of becoming involved with a partner at high-risk of IPV perpetration, as well as the traits that may hinder the ability of victims to leave abusive relationships. Similar to patterns describing perpetrators, reports indicate that higher rates of IPV are experienced among young minorities of low socioeconomic status (Bachman and Saltzman 1995; Tjaden and Thoennes 2000).

As a whole, minority groups experience higher rates of intimate partner violence, as evidenced in the case of African Americans (Rennison and Welchans 2000). The higher rates of victimization among this population can be attributed to a host of other risk factors that will be discussed throughout the section (see Coker et al. 2000; Cunradi et al. 2000; Ernst et al. 1997; Huang and Gunn 2001; Raj et al. 1999; Wyatt et al. 2000). While there is general agreement on the higher prevalence rates among minorities (Block and Christakos 1995; Caetano et al. 2005; Jasinski 2001; Wyatt et al. 2000), some scholars question the predictive ability of age on victimization. For example, while Firestone and colleagues (Lambert and Vega 1999; Harris and Vega 2005) found no evidence of an age-victimization relationship, other studies have found that age is a risk factor, with younger women consistently reporting higher rates of violence by partners (Frias and Angel 2005, 2012; Weaver et al. 1997).

Low socioeconomic status enhances the vulnerability of victims, particularly among female samples, by increasing their dependence on abusive partners (Barnett 2000; Dugan, Nagin and Rosenfeld 1999; Raphael 2000; Riger and Krieglstein 2000; Weinbaum et al. 1998). In addition to a heightened risk of victimization (Bachman and Saltzman 1995; Cunradi et al. 2002), Walker (1984) points out that limited resources make women more likely to tolerate abuse because the alternative may mean the absence of shelter and basic subsistence needs (see also Anderson et al. 2003). Literature examining male-to-female IPV holds that poverty and income in particular are two of the most significant and strongest correlates of victimization (Benson et al. 2000; West 1998). Although not the focus of this study, the intersectionality of race, class and gender (see Collins 1991) may be especially important to consider in victim vulnerability

research because it can aid in developing appropriate explanations for the disproportionate rates of IPV among female minorities in the U.S., accounting for the effects of socio-cultural factors such as poverty, racism and patriarchy (Crenshaw 1994).

There is a reoccurring debate in the literature regarding a key indicator of socioeconomic status, namely, the role of women's employment in the occurrence of IPV. Studies describe employment as a risk factor for abuse that may be conditioned by men's employment or as a protective barrier against victimization. Zelizer's (1989) seminal work on the differentiation of "domestic monies" indicates that women's income can be viewed in two ways - as supplemental or necessary – depending on the financial well-being of the household. The latter view may denote the economic insufficiency of the male partner, thereby threatening the existing power dynamics of the relationship, and encouraging IPV perpetration as a means to maintain control over female counterparts (Moffit and Caspi 1995; Riger and Staggs 2004). Central to this backlash hypothesis is men's labor market earnings and success (Perilla et al. 1994; Kantor et al. 1994; MacMillan and Gartner 1999). Research also indicates that male-to-female IPV is more likely to occur among couples where men were unemployed and women were employed (MacMillan and Gartner 1999). Studies stressing an inverse relationship between female employment and IPV point to an increase in domestic power, access to resources, and increased opportunities for socialization as protective factors (Kalmuss and Straus 1990). For example, Lambert and Firestone (2000) found that male-perpetrated IPV is more likely to occur in heterosexual relationships of unequal power. Therefore, women of low occupational status were more likely to be victimized than those with a similar occupational prestige to their partners.

Prior exposure to violence is a recurring theme in IPV literature, with some research pointing to childhood sexual and physical abuse as a significant risk indicator for adult victimization (Frias and Angel 2005; Weaver et al. 1997; Whitfield et al. 2003). While most of these findings are based on female samples, a similar association has been found among male victims of IPV (Desai et al. 2002; Schafer, Caetano, and Cunradi 2004). Exposure to IPV in one's family of origin has been identified as a strong factor related to future victimization (Coker et al. 2000). Other studies have focused on experiences in adulthood, asserting that female victims of IPV who have been physically or sexually abused by their previous partner or current partner are more likely to experience future IPV (Coker et al. 2000; Gilbert et al. 1997; Hattendorf and Tollerud 1997; Thompson, Saltzman, and Johnson 2003).

An extensive number of studies have examined the co-occurrence of substance abuse and IPV, with some focusing on victim use (Caetano, Schafer and Cunradi 2001; Downs 2001; Hankin et al. 2010; Kantor and Straus 1987; Miller, Downs, and Gondoli 1989) and others pointing to drug or alcohol issues among both partners (Stith et al. 2004). Research has also consistently shown an association between mental health issues and IPV (Caetano and Cunradi 2003; Carbone-Lopez et al. 2006; Moffitt and Caspi 1999). More specifically, research finds higher levels of depression, anxiety and posttraumatic stress disorder among IPV victims (Astin, Lawrence and Foy 1993; Browne 1993; Campbell et al. 2002; Dutton et al. 2005; Hankin et al. 2010; Jones, Hughes and Unterstaller 2001; Levendosky et al. 2004; Tolman and Rosen 2001; Vitanza, Vogel, and Marshall 1995). The causal relationship between IPV and mental health may be explained differently. For example, research has described depression as a



risk factor for IPV (Astin, Lawrence and Foy 1993; Campbell et al. 2002; Dienemann et al. 2000; Dutton et al. 2005; Jones, Hughes and Unterstaller 2001; Tolman and Rosen 2001), as well as a consequence of this type of abuse (Stark and Flitcraft 1995). Therefore, while the incidence of IPV among women diagnosed with depression is twice as high as that of the general population (Dienemann et al. 2000), it has also been identified as the most frequent psychological response to IPV, with 60% of battered women reporting depression (Barnett 2000).

Social support systems are important to consider in IPV research as they may increase the susceptibility of victims or serve as a protective factor against perpetration. IPV may impair victims' social support networks for several reasons, thereby increasing vulnerability. For example, perpetrators tend to socially isolate their victims and diminish their networks, victims may feel shame and minimize abuse, or the violence can diminish victims' self-worth, therefore lowering their self-esteem (Levendosky et al. 2004; Bradley, Schwartz, and Kaslow 2005; Williams and Mickelson 2004). The process of impaired support may stem from what Dutton and Painter (1981) describe as traumatic bonding, where the strong emotional ties between the perpetrator and the victim are created due to the unequal balance of power within the relationship. They explain that the greater the imbalance, the lower the victim's self-esteem due to the relative powerlessness the victim feels. This in turn results in an increased dependence by the victim on the perpetrator (Dutton and Painter 1981). Consistent with the idea of impaired support, Denham et al. (2007) examined a sample of Latina, White and African American women in rural North Carolina and found that Latinas who experienced IPV were more likely to lack social support systems as compared to Latinas who did not experience IPV.

Additionally, non-Latina IPV victims were five times more likely than Latina IPV victims to have support systems, which the authors attribute to their possible immigrant status, the accompanying social isolation from family in the country of origin, and inaccessibility to professional support services due to cultural and linguistic barriers. These findings are consistent with prior research indicating an association between IPV victimization and impaired social support. More importantly, they highlight an important issue - differential access to and utilization of social support systems among racial and ethnic groups. This suggests the need to take difference into account in research on IPV and social support, as well as in the provision of services to victims.

Social support may also be especially important in breaking the cycle of violence experienced by IPV victims. Rice (2008) describes this cycle in three stages—the tension building stage where the tension increases as time passes, the acute battering stage where the tension explodes and violence occurs, and the honeymoon stage where the perpetrator of IPV becomes apologetic and promises not to batter again. The cycle repeats itself until the victim leaves or the abuse becomes more severe, possibly leading to lethality (Rice 2008). Social support may break this cycle by providing an emotional outlet that allows victims to acknowledge the trauma they have experienced, experience feelings of individual efficacy and seek help (Stets 1991). Conversely, while individuals experiencing social isolation and a lack of social support are at increased risk of victimization, those with strong social networks are protected against such abuse (Baumgartner 1993; Heise 1998; Klein and Milardo 2000; Michalski 2004; Stets 1991). Van Wyk and colleagues (2003) describe the protective role of social support as multifaceted. In addition to providing help-seeking outlets, social ties may increase the

opportunity for others to recognize signs of abuse and express their disapproval of it. In their study of male-to-female IPV, they find that social support decreases risk of victimization; however support is limited to neighborhoods with low and medium levels of social disorganization, which they attribute to differences among classes in terms of adherence to gender ideologies (Van Wyk et al. 2003).

### *Immigrant-Specific Stressors*

Research has established that immigrants in the U.S. are attractive targets for criminals and specifically shown that one of the most common forms of victimization among this group is IPV against women (Davis and Erez 1998; Dasgupta 2000; Raj and Silverman 2002). Although still limited, research on IPV among immigrants in the U.S. has been steadily growing in recent years, with findings indicating that immigrant women's experiences with IPV are often intensified because of the circumstances they are exposed to by virtue of the unique status they occupy (Menjivar and Salcido 2002).

At the micro-level, IPV literature suggests that immigrants experience specific stressors that increase their vulnerability to victimization and create barriers hindering access to assistance (Erez 2000; Menjivar and Salcido 2002; Perilla et al. 1994). In addition to experiencing the stressors associated with IPV to which the native population is exposed, Raj and Silverman (2002) explain that culture and context of reception create additional conditions that may trigger violence between partners. The use of home countries as frames of reference (Adames and Campbell 2005; Erez 2000; Menjivar 1999), shifting gender roles upon settling in the U.S. (Bui and Morash 1999; Menjivar 1999; Morash et al. 2007; Perilla 1999), changes in economic status and employment patterns (Grzywacz et al. 2009), language barriers (Bui and Morash 1999; Garcia 1993;

Goldman 1999; Jang, Lee, and Morello-Frosch 1991; Mehrotra 1999; Menjivar and Salcido 2002; Perilla et al. Norris 1994), pending legal status (Bechtold and Dziewiecka-Bokun 1999; Crenshaw 1995; MacLeod and Shin 1990; Morash et al. 2007; Salcido 2000), and isolation from significant others in countries of origin (Erez 2000; Jang, Lee, and Morello-Frosch 1991; Nayaran 1995; Raj and Silverman 2002) are all significant immigrant-specific stressors. Much of the existing literature on this population portrays gender asymmetry in IPV, with the majority of these stressors increasing the vulnerability of female immigrants, as well as the likelihood of male perpetration as a means of regaining control or status.

Using one's home country as a frame of reference for experiences in the host country is common among immigrants and can increase the vulnerability of victims (Erez 2000; Menjivar 1999). Research suggests that these frames may inhibit the reporting of IPV in two significant ways depending on the sending country. For example, Menjivar (1999) explains that if IPV is not recognized as a punishable crime in countries of origin and thereby victims are not protected, incidents of IPV in the receiving country will likely not be reported because victims will assume that the same lack of action against perpetrators exists. Immigrants from societies viewing IPV as a private matter will also be less likely to report abuse because of the continued use of these cultural norms upon settling in the U.S. (Bui 2003; Raj and Silverman 2002). The unrelenting utilization of these norms in guiding behavior is evident in Adames and Campbell's (2005) study of immigrant Latinos in the U.S. Through qualitative investigation, they found that the patriarchal gender arrangements learned in the home country were encouraged and practiced even after migration (Adames and Campbell 2005).

Women emigrating from patriarchal societies are often conditioned to hold their families together at all costs. However, they find themselves struggling with changing gender roles and issues related to familial solidarity (Menjivar 1999; Perilla 1999), both of which can affect their familial relationships (Ong 2003). This in turn may lead to several outcomes, such as an unconscious rejection of assimilation trajectories, exclusion or isolation, and tolerance of abuse. Studies have found that strong patriarchal beliefs among husbands and conflicts stemming from changing norms increase the likelihood of male-perpetrated IPV among immigrant couples (Bui and Morash 1999). Some immigrants point to a strong adherence to gender ideals as prohibiting changes in power among couples. Studies have highlighted the role of hegemonic masculinity in explanations of changing gender roles as an immigrant-specific stressor associated with IPV victimization and perpetration. Morash and colleagues (2007) found support for the relationship between patriarchal family structure and IPV in their study of female Vietnamese immigrants, where disagreements regarding gender roles and behaviors were found to be significant predictors of abuse. Furthermore, IPV was most common in families emphasizing male dominance (Morash et al. 2007).

Changes in the gender roles of immigrant couples often stem from the employment opportunities available in the host country, which may lead to shifts in earnings and economic status (see Grzywacz et al. 2009). The association between these shifts and the occurrence of IPV can be explained by the cultural legitimization of male dominance within families reinforced by patriarchal values delineating men as the primary breadwinners, a role that is used to demonstrate their masculinity (Ferree 1990). Furthermore, studies have shown that intracouple conflict among immigrants may arise

from men's frustration in their inability to meet the financial obligations of the family and the consequential necessity for women's supplemental income (Grzywacz et al. 2009).

Employment and income, as well as changes among each upon resettlement, can significantly alter the relationship dynamics of immigrant couples. Similar to studies on mixed samples, IPV research on shifts in the economic status of immigrants has examined the role of female employment as a risk indicator for victimization and the effects of male occupational prestige on perpetration. General research on labor market participation has suggested that female employment alters the existing power dynamics within families due to heightened feelings of autonomy and agency among women (Safa 1995). Similar findings have been established regarding immigrants specifically, where women have felt empowered by the financial contributions they are able to make from regular employment. For example, interviews with male and female immigrants believed to be in abusive relationships revealed that existing gender arrangements were challenged by women's employment in the U.S. by decreasing their available time for household duties, increasing their interactions with individuals outside the family, and fostering financial independence in decision-making (Grzywacz et al. 2009). Despite contesting gender beliefs, the protective effects of women's economic contributions have not been consistently supported in research. In their study of Vietnamese immigrants, Bui and Morash (1999) fail to find a significant association between female employment and decreased risk of IPV victimization. While financial independence is theorized to increase a victim's ability to leave a violent relationship, some studies have found that women's access to their earnings was often restricted by controlling partners (Bhuyan et al. 2005; Crandall et al. 2005; Erez et al. 2009).

Studies associating female employment with an increased risk for IPV often point to male perceptions of reduced authority and threats to male dominance (Menjivar 1999). Menjivar and Salcido (2002) explain that this may be especially true for immigrants in the U.S., where women may be able to more easily find work in the domestic sector. Support for this relationship has been mixed; however, some scholars point to a lack of general occupational success among women as a reason for this (Morash et al. 2007). Female immigrants in low wage occupations would not necessarily experience hostile responses because the threat experienced by their partner's would be minimal. In sum, perpetrators would not view outside employment as betrayal due to perceptions of autonomy because of the lack of resources afforded by low-prestige work. Women's employment increases the risk of IPV only when the male immigrant's authority is reduced, thereby increasing their propensity to perpetrate IPV (Bui and Morash 1999; Coltrane and Valdez 1993; Kibria 1994; Nah 1993).

Language barriers and pending legal status are two stressors that may trigger IPV indirectly by further complicating the nature of employment or directly by preventing access to help-seeking resources. High-skilled employment in the U.S. commonly requires knowledge of English and mandatory proof of a legal work permit, relegating ineligible job seekers to the secondary or informal sectors of the market (Nah 1993). Lack of English proficiency may also contribute to an increased risk of victimization by creating difficulties in obtaining help from government agencies and service providers (Bui and Morash 1999). Additionally, language barriers may hinder awareness of existing services for victims or laws prohibiting IPV (Menjivar and Salcido 2002; Perilla et. al 1994). The significance of language skills in reducing an abusive partner's control over a

victim was evidenced in Frias and Angel's (2012) comparative study of Mexican-origin women living in the U.S. and Mexico. Data on the U.S. sample found that English proficiency counteracted the significant relationship between acculturation and heightened risk of IPV (Frias and Angel 2012). It is important to note, however, that language skill attainment has also been shown to increase the likelihood of victimization when it is viewed by perpetrators as a means of achieving independence and contesting control (Mehrotra 1999).

An IPV victim's irregular legal status can be used as a tool of exploitation, forcing her to tolerate abuse rather than seek interventions due to fear of government involvement (Frias and Angel 2005; Menjivar and Salcido 2002). Female immigrants may be especially prone to victimization because their legal status is frequently linked to their spouses' status (Narayan 1995). For example, Morash and colleagues (2007) found that male perpetrators threatened to jeopardize the legal status of their female partners by suggesting divorce. Even with legal protections such as the Violence Against Women Act in place, the Vietnamese female immigrants interviewed saw this as sufficient reason to remain with abusive partners (Morash et al. 2007). Crandall and colleagues (2005) further identify the use of immigrant status as a tactic of control, whereby perpetrators often deliberately complete permanent resident applications for their partners inaccurately to ensure the continuation of their irregular legal status. Literature suggests that the statuses of "immigrant" and "victim" create a type of enhanced vulnerability, particularly among women (Crenshaw 1995). Often times, the fear that inhibits these victims from seeking help is not due to personal deportation, but rather concern for the well-being of their families and their abusive partners (Acevedo 2000; Bauer et al. 1999; Hass et al. 2000;



Raj and Silverman 2002). In addition, the heightened isolation and marginalization these women already experience may exacerbate fears regarding disapproval from family members and loss of economic well-being if they leave or report their partners (Dutton, Orloff and Haas 2000; Hass et al. 2000; Salcido 2000). In instances where both the perpetrator and victim are undocumented, reporting IPV to police is also unlikely.

It is important to consider nativity in the context of the stress process associated with IPV and the availability and utilization of social networks. Although there are certainly within-group differences in the social conditions of immigrant groups in the U.S., there are significant between-group differences in the life circumstances of natives and non-natives which are more feasible to assess and affect the dynamics of social relationships as well as the frequency of stress-provoking events that may trigger IPV. Settlement in a foreign country may increase the vulnerability of IPV victims by increasing the ability of perpetrators to control their partners and uphold their power (Erez 2000; Narayan 1995; Raj and Silverman 2002). For example, while the incidence of IPV is not actually higher among immigrants as compared to the native-born, their isolation from the family in host country and separation upon migrating can prove to be especially difficult for women since they are left without a support system (Menjivar and Salcido 2002). This may make immigrant women more dependent on their partners, make it easier for men to control their lives, and thus make it harder for women to leave. While some studies find that immigrant women have little difficulty in partaking in informal networks in host countries (Menjivar 2000), others posit that women's participation in these networks may be hindered by their low human capital and subordinate social status (Abraham 2000; Bui and Morash 1999). These factors, coupled with the isolation,

significantly impacts opportunities for the formation of social ties, thwarting the building of networks that can provide emotional and instrumental support to IPV victims (Adames and Campbell 2005).

### ***Relational Features***

At the relational level, there are certain characteristics that have been established as tension-producing, affecting the interactions of couples and increasing the likelihood of IPV. Scholarly work at this level of social ecology has focused extensively on types of relationship (Kenney and McLanahan 2006; Magdol et al. 1998a; Moffitt and Caspi 1999; Stets and Straus 1989; Yllo and Straus 1981) and instability among couples- with cohabitation (Anderson 1997; Brownridge 2008, 2009; Brownridge and Halli 2002; Magdol et al. 1998a; Stets 1991) and separation (Brewster, 2002; Campbell et al. 2003; Coleman 1999; Dutton and Kerry 1999; Farr 2002; Johnson 1995; Serran and Firestone 2004) playing key roles in risk assessment. Furthermore, recent literature has also posited that the presence and number of children may dramatically alter the dynamics of a household as well as the stress levels of partners.

Studies show a higher prevalence of IPV among nonmarried, cohabiting partners than among other types of relationships statuses (e.g., dating or married) (Brownridge and Halli 2002; Frias and Angel 2005; Kenney and McLanahan 2006; Moffitt and Caspi 1999; Stets and Straus 1989, 1990; Yllo and Straus 1981). These findings are not gender-specific, as both men and women in cohabiting heterosexual relationships are said to experience the highest rates of victimization. For example, utilizing national survey data, Stets (1991) found that cohabiting couples were more likely than married couples to engage in IPV as a result of the higher levels of isolation they experience and related

issues of autonomy and control. Similar results were found in Magdol et al.'s (1998a) examination of dating and cohabiting relationships, where cohabiters were more likely to experience IPV. More recently, Brownridge (2009) examined male IPV victimization using survey data from Canada and found that similar to research on female victimization, men in cohabiting relationships were more likely to be victimized as compared to married men. Brownridge suggests that the higher rates of IPV within this group are due to the disproportionate young age of cohabiters and the presence of specific couple characteristics, such as expressions of dominance, that increase risk. The higher rates of IPV among cohabiters have been traditionally associated with the ambiguity concerning rules governing these relationships. More recently however, Kenney and McLanahan (2006) propose an alternative explanation, whereby choices regarding whether to get married need to be taken into account. They assert that it is important to note that cohabiting commonly precedes marriage and therefore suggest that married couples display lower rates of IPV because cohabiting couples that experience conflict do not marry (Kenney and McLanahan 2006).

This study is unable to examine the impact of separation among intimate partners on IPV; however literature has established a correlation between the relationship status of couples and IPV due to perceptions of ownership, perceived betrayal and anger (Hannawa et al. 2006; Johnson and Hotton 2003; Wilson and Daly 1993). Separation has been identified as a risk indicator because it is often the result of conflict (Brewster, 2002; Campbell et al. 2003; Coleman 1999; Dutton and Kerry 1999; Farr 2002; Johnson 1995; Serran and Firestone 2004). Hotton (2001) explains post-separation male-perpetrated IPV as a result of the reluctance of perpetrators to relinquish control over

their former intimate partners. This may be especially detrimental among couples who share custody of children, as this enable perpetrator access to the former partner.

The presence of dependent children has also been shown to drastically alter the dynamics of households and the nature of intimate relationships, therefore affecting the likelihood of IPV (Voydanoff 1990). Children are identified as potential stressors triggering IPV due to disagreements that may arise concerning childrearing techniques and the financial responsibility and stress they add to relationships (DeMaris et al. 2003). Evidence of this association was found by DeMaris and colleagues (2003) using two waves of data from the National Survey of Families and Households. They found that the presence of children was positively associated with IPV perpetration when employment disparities and financial stress were also present (DeMaris et al. 2003).

### ***Neighborhood Factors***

A majority of existing IPV research entails examination of individual and relational characteristics due to the intimate nature of the relationships involved (Straus et al. 1980). The development of integrative models in the field prompted researchers to examine factors at broader levels of analysis and led to the incorporation of community-level conditions in studies. A growing body of literature has shown that, similar to other forms of crime, the prevalence of IPV is influenced by neighborhood factors (Benson et al. 2003; Benson et al. 2004; Browning 2002; Lauritsen and Schaum 2004; Lauritsen and White 2001; Miles-Doan 1998; Van Wyk et al. 2003; Wooldredge and Thistlethwaite 2003). At the macro level, poverty, weak social ties, and a lack of sanctions against IPV have been identified as correlates of IPV victimization and perpetration (Heise and Garcia-Moreno 2002).

An increasing number of studies have focused on the characteristics of areas in explaining IPV, and research in this area has focused on the tenets of social disorganization theory, specifically concentrated economic disadvantage. For example, Miles-Doan (1998) provided one of the first analyses on the impact of neighborhood conditions on IPV and found that when compared to more affluent areas, IPV rates were six times higher in communities characterized by concentrated poverty. Van Wyk and colleagues (2003) reached similar conclusions in their examination of male-to-female IPV through survey data; the highest rates of violence occurred in the most impoverished communities and the least deprived communities exhibited the lowest rates of violence.

Studies using varying indicators of disadvantage have found positive associations between impoverished neighborhoods and rates of male-perpetrated IPV against women (Cunradi et al. 2002; DeMaris et al. 2003; Lauritsen and Schaum 2004). In their study of Black, White and Hispanic couples in the U.S., Cunradi and colleagues (2000) extend this finding to rates of female-to-male IPV among Black couples and White couples. In terms of these indicators, high unemployment rates appear to be one of the most significant community-level risk markers in male-perpetrated IPV (Cunradi et al. 2002). One explanation for this may be that men use violence as a means of reinforcing their authority in the absence of a stable income (Miles-Doan 1998).

The concentration of significant individual and community IPV risk factors in disadvantaged neighborhoods are said to increase the likelihood of IPV among the residents who are frequently exposed to them interactively (Browning 2002; Fox and Benson 2006). Some possible explanations for the process through which concentrated disadvantage increases the risk of IPV are by increasing levels of stress, hampering the

formation of ties among residents and blocking the spread of values disapproving of IPV through increased social isolation (Wright and Benson 2010). These explanations are plausible considering that in areas with strong social networks, social ties among residents aid in the communication of values regarding appropriate behavior, thereby contributing to low rates of street crime (Sampson, Morenoff, and Gannon-Rowley 2002; Silver and Miller 2004). Accordingly, inaccessibility to broader social networks increases the likelihood that couples will respond to conflict with violence (DeMaris et al. 2003).

The applicability of social disorganization theory in explaining IPV has been examined, with studies finding key differences in the significance of structural predictors (ethnic heterogeneity, residential mobility, concentrated disadvantage) and the role of collective efficacy (Browning 2002; Wright and Benson 2010). In his examination of lethal and non-lethal IPV, Browning (2002) did not find that any of the structural predictors identified in social disorganization theory were significantly related to IPV once all variables were accounted for in his full model. However, collective efficacy decreased rates of IPV by increasing the likelihood that women would disclose victimization and that individuals would disapprove of the violence and intervene. Contrary to Browning (2002), Wright and Benson (2010) found that concentrated disadvantage, residential stability, and concentrated immigration were significantly associated with neighborhood rates of IPV. Utilizing data on Chicago neighborhoods, their analysis indicated that neighborhood disadvantage significantly increased IPV, while social ties and cultural norms significantly decreased IPV. However, the strength of these associations was quite different, as evidenced in the inability of social ties and cultural norms to mediate the impact of disadvantage on this type of violence (Wright and

Benson 2010). In sum, Wright and Benson's work provides support for social disorganization theory. However, their conceptualization of ethnic heterogeneity-operationalized as immigrant concentration – worked in a different manner than predicted by social disorganization. This will be discussed in the following section on empirical literature pertaining to the immigrant-crime relationship.

### *Immigrant Concentration*

Criminological research has extensively examined the relationship between immigration and crime (Butcher and Piehl 2008; Lee et al. 2001; Martinez and Lee 2000; Martinez 2002; Morenoff and Astor 2006; Zhou and Bankston 2006). While assimilation issues and settlement in disorganized neighborhoods are often associated with crime and give way to the belief that immigrants should be involved in crime to a greater extent than the native born, studies have shown that they are not (Butcher and Piehl 2008; Martinez and Lee 2000; Martinez 2002). In fact, recent studies have shown that immigrant concentration in communities decreases rates of violence. For example, Desmond and Kubrin (2009) used national longitudinal data to determine whether immigrant concentrations in communities functions as a protective factor against adolescent violence. Their analysis refuted the popular image of the criminal immigrant, finding instead that immigrant concentration was negatively associated with violence among adolescents.

In relation to IPV, general assumptions regarding the role of masculinity in some immigrant cultures give way to the idea that males in these groups perpetrate more violence. This is especially true of immigrants arriving from Latin America, largely due to deeply rooted ideas regarding the role of male dominance in family dynamics (Baca

Zinn 1995). Hispanic culture has promoted the notion that authority should rest in the hands of the man and despite recent challenges by females at the behavioral level, there is still an acceptance of the traditional ideology of patriarchy (Hurtado 1995; see Vandello and Cohen 2003). Through these patriarchal values, women are treated as subordinate individuals and at the center of this subordination is the family. While associations between Hispanic immigrants and *machismo*- the image of the strong, aggressive male that practices complete dominance over his wife and children, and will use violence without hesitation to protect his reputation (Abalos 2002; Castaneda 2002)- leads to assumptions about rates of violence among this population (Diaz-Olavarrieta and Sotelo 1996), literature suggests that it is actually exposure to American culture that increases the rate of IPV among immigrants. This is evident in studies finding a positive relationship between acculturation and risk of IPV victimization (Firestone et al. 1999; Frias and Angel 2005; Kantor et al. 1994; Jasinski 1998; Morash et al 2000). For example, one study found that that IPV victimization risk among Mexican-born women residing in the U.S. increased in proportion to the number of years they has resided in the U.S. (Frias and Angel 2012).

Kantor and colleagues (1994) suggest that exposure to mainstream American culture or existing subcultures leads to the adoption of related values, such as tolerance of IPV, by immigrants. This would then account for the protective role of immigrant concentration in deterring crime among this group. As mentioned in the previous section, Wright and Benson's (2010) conceptualization of ethnic heterogeneity- operationalized as immigrant concentration – worked in a different manner than predicted by social disorganization. Rather than acting as a disorganizing factor in an area, their multilevel



analysis of IPV found that neighborhoods with large immigrant populations enjoyed lower levels of IPV. The authors attribute this example of the ‘immigrant paradox’ as producing increased social control stemming from social ties with friends and traditional cultural norms that do not consider IPV a private issue.

### ***Research Questions and Hypotheses***

This dissertation explores the relationship between individual, relational and community factors, and different types of IPV. Based on the theoretical propositions of social disorganization and the reviewed empirical literature on IPV and immigration, I hypothesize that I will find that:

- Hypothesis 1: Immigrant status will increase the likelihood of Physical and Severe IPV victimization and IPV perpetration.
- Hypothesis 2: Immigrant status will not have a significant association with Physical or Severe bidirectional IPV.

The prediction of a significant relationship between IPV victimization and immigrant status is based on research on immigrant-specific stressors that may increase victim’s vulnerability to violence. Similarly, the prediction of a significant association between IPV perpetration and immigrant status stems from empirical literature on the changing gender roles of immigrants and improvements in the economic status of female immigrants, both of which may be viewed as threats to male dominance. Literature suggests that these immigrant-specific stressors may be correlated with IPV victimization and perpetration due to the shifts in power that they produce. Therefore, violence is theorized to serve as a tool to retain an imbalance of power. Additionally, there is no evidence that these stressors would increase the likelihood of bidirectional IPV.

Directionality of IPV is a significant component of this analysis because it is an attempt to provide better understanding of the role of gender in this type of violence. Based on feminist and family research explanations, as well as recent research on the gender symmetry debate, I hypothesize that:

- Hypothesis 3: Being female will increase the likelihood of Physical and Severe IPV victimization, but will not be significantly associated with any other IPV category.

The role of community structural factors in the occurrence of IPV, net of the effects of individual- and relational- level characteristics, are also considered. The theoretical propositions of social disorganization and multilevel studies on the immigrant-crime relationship, as well as Wright and Benson's (2010) findings on IPV, suggest the following hypotheses:

- Hypothesis 4: Neighborhoods with large concentrations of immigrants will experience lower levels of IPV.
- Hypothesis 5: Neighborhoods with high levels of economic disadvantage and racial heterogeneity will experience higher rates of IPV.

This purpose of this dissertation is to examine the effects of immigrant status and immigrant concentration, as well as a number of individual-, relational-, and neighborhood-level factors, on several types of IPV. The following chapter explains the methodological framework used to examine these relationships. It begins with a description of the dataset utilized and the sample selected for this study. The measures used to examine the relationships are described, as well as the analytical techniques used.

## **Chapter 4**

### **METHODS**

This study examines the effects of immigrant status and immigrant concentration, as well as a number of individual-, relational-, and neighborhood-level factors, on several types of IPV. This chapter describes the dataset used, the sample included in the study, the measures used to assess these relationships, and the analytical techniques utilized.

#### ***Data***

The data employed in this study are from the National Longitudinal Study of Adolescent Health (Add Health), a longitudinal dataset collected in four waves between 1994 and 2009 through questionnaires and in-home interviews with respondents and significant others (Harris 2011). Data from waves I through III are used in this study. The surveys obtained information about respondents' family life, social networks, relationships, educational institutions, and neighborhoods. Additionally, contextual data were provided by preexisting databases. The techniques for gathering this data will be described throughout this section.

The first two waves of Add Health focus on the factors that were presumed to have possible effects on respondent well-being and propensity to engage in risky behavior. The initial sample was obtained based on a clustered sampling design, with schools serving as the primary cluster. The sampling frame for this design came from a database collected by an outside agency (Quality Education Data, Inc.) to ensure a nationally representative sample of U.S. schools. Stratified random sampling was used to identify 80 high schools that met the following criteria: 1) possessed an 11<sup>th</sup> grade and 2)

enrollment of at least 30 students (Harris 2011). Seventy percent of the high schools identified participated and those that declined were replaced by another one within the stratum. Participating high schools aided in the identification of feeder schools that had a seventh grade. Each high school was asked to identify the junior high or middle schools from which they expected to receive at least five students and provide the approximate percentage of the entering class coming from each school (Tourangeau and Shin 1999). Selection was deliberate and seventh grade schools chosen were those with a probability proportional to the amount of students it sent to the high school (Harris 2011). Four high schools did not have an eligible feeder because their entering class came from a very large number of schools, and 20 high schools had a 7<sup>th</sup> or 8<sup>th</sup> grade thereby serving as their own feeder schools. As such, 56 middle schools were identified, although four schools chose not to participate in the study. Therefore, 52 middle schools selected participated in the study (Tourangeau and Shin 1999).

Wave I of the Add Health Survey consisted of an in-school questionnaire, in-home interview, school administrator questionnaire and parent questionnaire, administered between September 1994 and December 1995. The original in-school sample began with 90,118 students from 132 schools (80 high schools and 52 middle schools described above) in 80 communities across the U.S. All respondents were students in grades 7 through 12, the majority of whom were between the ages of 10 and 19. The survey began with a self-administered 45- to 60-minute in-school questionnaire, through which students were stratified by grade and sex (Harris 2011). An in-home sample of 27,000 adolescents were drawn from the 90,118 original surveyed students,

which consisted of a core sample randomly selected from each stratum<sup>1</sup> (N=12,105) and selected oversamples of supplementary ethnic groups (Black, Chinese, Cuban and Puerto Rican), a disabled sample (self-reported physical disabilities involving the use of limbs) and genetic samples (identical/fraternal twins, full siblings, half siblings, siblings of twins and unrelated pairs residing in the same household). Respondents for these oversamples were chosen according to in-school questionnaire answers. In addition, saturation samples from 16 schools were used to aid in the examination of social networks. The 16 schools chosen consisted of two large schools (with a combined enrollment greater than 3,000), one of which was predominantly white and in a mid-sized town and the other was ethnically heterogeneous and in a major metropolitan area, as well as 14 small public and private schools (each of which had an enrollment of fewer than 300 students) located in rural and urban areas. All of the students enrolled in these 16 schools were selected for in-home interviews.

A total of 20,745 adolescent respondents agreed to participate in the in-home interviews, yielding a 79% response rate (Harris 2011). The in-home interviews were face-to-face and one-to-two hours in length, the majority of which were conducted in the respondents' residences. To ensure confidentiality, interviews were paperless and conducted with laptops using audio-CASI technology. Interviewers asked questions aloud and then entered the answers on the laptops; however in sections covering sensitive topics, respondents listened to the questions on audio and typed their answers themselves (Harris 2011). In addition, each adolescent respondent was given the computerized Add Health Picture Vocabulary Test (AHPVT), which is a shortened version of the Peabody

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<sup>1</sup> The study cross-classified students by sex and grade into 12 student-level strata (Tourangeau and Shin 1999).

Picture Vocabulary Test consisting of 87 items. During the AHPVT, interviewers read words aloud and respondents had to choose the picture that best corresponded to the word. Furthermore, raw scores were standardized by age.

School administrators were given self-administered questionnaires regarding school policies, faculty and student body characteristics, school climate and the provision of healthcare services. A total of 144 questionnaires were successfully administered. Additionally, parents of adolescent respondents were also asked to participate in an interviewer-assisted, op-scanned questionnaire regarding household demographics, familial health history, parenting attitudes and practices, their relationship with the adolescent and knowledge of their child's social network (Harris 2011). Either parent could participate, although a preference was given to mothers. A total of 17,670 questionnaires were collected from parents, yielding an 85% response rate.

The following year (between April and August of 1996), Wave II data were collected utilizing in-home interviews with 14,738 of the original adolescent respondents who completed the Wave I in-home interview, yielding a 71% response rate. Wave I respondents who were in 12<sup>th</sup> grade and did not participate in the genetic sample were excluded, as well as respondents who were only in the disabled oversample. The additional recruitment of 65 respondents from the genetic sample who were not interviewed at Wave I were interviewed in Wave II (Harris 2011). Interviews mirrored the same procedures used during Wave I. Follow-up self-administered questionnaires with school administrators were also utilized to obtain information about school environment. Administrators were asked to update the information collected in Wave I

and given additional questions concerning school policies regarding dress code and security procedures. A total of 128 questionnaires were collected (88% response rate).

Wave III data were collected between August 2001 and April 2002, when most respondents were between the ages of 18 and 26.<sup>2</sup> In-home interviews were conducted with 15,197 respondents (77.4% of the original Wave I sample) and gauged how adolescent behavior affected various outcomes in adulthood. Respondents from the original sample who resided outside of the US were excluded from the survey; those in correctional facilities were interviewed whenever possible (Harris 2011). Similar to earlier waves, most interviews took place in respondents' homes and data were recorded on laptops by the interviewer or the respondent, depending on the sensitivity level of the topics addressed. Sensitive questions were handled as in earlier waves. Although the face-to-face interview took approximately 90 minutes, the average completed interview lasted about 134 minutes due to the collection of biological specimens. Wave III also included a couples sample, which was comprised of a randomly selected portion of the respondents who reported being in a relationship, as well as their partners, who were interviewed separately. Partners were included in this wave due to the belief that the factors affecting the well-being of respondents had changed over time and that at this life stage romantic partners were influential. Therefore, half of the original study sample was evaluated for partner recruitment, which was determined by computer algorithm, based on the relationship history provided by respondent. Certain criteria had to be met to be included in the sample: 1) relationship had to be current, 2) partner had to be of the opposite sex, 3) partner had to be 18-years-old or older, and 4) respondent and partner

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<sup>2</sup> 24 respondents were 27-28 years old at the time of interview.

had to be in a relationship for at least 3 months (Harris 2011). The selection was designed to be equally comprised of married, cohabiting and dating respondents (one-third of each). Out of the 10,000 respondents who were eligible, 15% were selected for inclusion. A total of 1,507 partners were interviewed in a similar fashion to their counterparts. The analysis sample was made up of 1,317 Wave III respondents, whose partners were also interviewed and provided complete information (Chantala 2006; Harris 2011).

Contextual data for Waves I, II, and III were collected using preexisting data sources. In addition to the collection of community characteristics using the US Census, neighborhood (i.e. block group) information was also gathered from the Centers for Disease Control and Prevention, National Center for Health Statistics, Federal Bureau of Investigation, and the National Council of Churches (Harris 2011). Using the same procedures at each wave, contextual data were compiled into a database and linked to each respondent's ID number. During in-home interviews at each wave, interviewers used hand-held Global Positioning System (GPS) devices to collect address information on households lacking a geocodable street address (Harris 2011). During Wave I, this process was used for 25% of households and 98% were successfully identified and linked to Census block groups. Contextual information for the remaining 2% of households were missing. Each interview recorded whether respondents had moved between waves, thereby changing the contextual data linked to respondents. This study utilizes the block group contextual data collected in Wave III for the analysis sample.

This study utilizes data from Waves I, II, and III of the Add Health Survey, with Wave III data providing the key outcome measures. The sample is limited to respondents who at Wave III were in heterosexual relationships, who answered the relationship



section in Wave III, and whose partners were also interviewed. While IPV occurs in both heterosexual and same-sex relationships alike, the use of the partner data enables of examination of risk factors associated with unidirectional IPV perpetration and victimization, as well as bidirectional IPV, thus necessitating the focus on heterosexual relationships. While empirical literature has acknowledged similarities in patterns of abuse among heterosexual and same-sex couples (see Potoczniak et al. 2003), differences regarding contextual factors tied to how violence is enacted and the use of control have been well-documented (see Alexander 2002; Burke and Owen 2006; Kaschak 2001). The restriction of the data to heterosexual partners also allows better assessment of gender symmetry issues.

### *Measures*

*Physical Intimate Partner Violence.* One of the two dependent variables is physical intimate partner violence (IPV). This variable was constructed as a nominal variable indicating no physical IPV (0), unidirectional physical IPV perpetration only (1), unidirectional physical IPV victimization only (2), and bidirectional physical IPV (3), based on several items collected at Wave III.

*Physical IPV perpetration* is measured by responses to questions concerning how often in the past year respondents, (1) “threatened a partner with violence, pushed or shoved him/her, or threw something at him her that could hurt,” and (2) “slapped, hit, or kicked partner.” The items were originally each measured on a scale of zero through six (0=never; 6=more than 20 times).

*Unidirectional physical IPV victimization* was assessed using two similar items. Respondents were asked how often in the past year, (1) “partner threatened you with

violence, pushed or shoved you, or thrown something at you that could hurt,” and (2) “partner slapped, hit, or kicked you.” The items were originally each measured on a scale of zero through six (0=never; 6=more than 20 times).

Both physical IPV types were first constructed as dichotomous variables (0=no; 1=yes). Respondents who scored a one on *both* of these two physical IPV types were categorized as experiencing *bidirectional physical IPV*. Conversely, respondents who scored a zero on both physical IPV types, unidirectional perpetration only and unidirectional victimization only, were categorized as experiencing *no physical IPV*. These four dichotomous variables were then constructed as a nominal variable.

***Severe Intimate Partner Violence.*** The second dependent variable is severe intimate partner violence (IPV). This variable was constructed as a nominal variable indicating no severe IPV (0), unidirectional severe IPV perpetration only (1), unidirectional severe IPV victimization only (2), and bidirectional severe IPV (3), based on several items collected at Wave III.

*Severe IPV perpetration* is measured by responses to questions concerning how often in the past year respondents, (1) “insisted on or made partner have sexual relations with you when he/she didn’t want to,” and (2) “partner had an injury, such as a sprain, bruise, or cut because of a fight with you.” The items were originally each measured on a scale of zero through six (0=never; 6=more than 20 times).

*Unidirectional severe IPV victimization* was assessed using two similar items. Respondents were asked how often in the past year, (1) “a partner insisted on or made you have sexual relations with him/her when you didn’t want to,” and (2) “you had an

injury, such as a sprain, bruise, or cut because of a fight with partner.” The items were originally each measured on a scale of zero through six (0=never; 6=more than 20 times).

Both severe IPV types were first constructed as dichotomous variables (0=no; 1=yes). Respondents who scored a one on *both* of these two severe IPV types were categorized as experiencing *bidirectional severe IPV*. Conversely, respondents who scored a zero on both severe IPV types, unidirectional perpetration only and unidirectional victimization only, were categorized as experiencing *no IPV*. These four dichotomous variables were then constructed as a nominal variable.

***Individual-Level Variables.*** The focal independent variable under examination is *nativity status*. Respondents were asked whether they, “were born in the United States.” This variable was coded as a dichotomous variable (0=no, 1=yes) for immigrant. Additional individual-level variables that previous literature has established as known correlates of IPV are also included in the analysis. These control variables are related to sociodemographic characteristics, adolescent and parental factors, adult behavior and relationship dynamics.

Sociodemographic variables controlled for in this study include sex, race/ethnicity, age, educational attainment, employment status, personal income, household structure, and adult mental health. *Sex* was constructed as a dichotomous variable (0=no, 1=yes) for Female. In terms of *race/ethnicity*, dummy variables (0=no, 1=yes) were created for Hispanic, Black non-Hispanic, and Other non-Hispanic with White non-Hispanic serving as the referent group. *Age* was constructed as a continuous variable ranging from 18 to 27. *Educational attainment* was measured as years of education and ranged from six to 22 (6=6<sup>th</sup> grade; 22=5 years of graduate school). To

measure *employment status*, a dichotomous variable was created for employed at least 10 hours a week (0=no; 1=yes) with unemployed serving as the referent group. *Personal income* was used as a control variable in this study because of its significance in intimate partner power relations (Walker 1984). The respondent's income was measured by an estimate of total personal income from all sources before taxes and measured on a scale of one (less than \$10,000) to eight (\$70,000 or more). *Household structure* was constructed as a dichotomous variable (0=no, 1=yes) for lives with others.

Literature suggests that mental health is a mechanism that may impact one's propensity for IPV perpetration, risk of victimization, or likelihood of engaging in a relationship at risk of situational violence. The variable for measuring *mental health at Wave III* was computed by summing responses to seven items. The items measured how often in the past seven days, (1) "you were bothered by things that usually don't bother you," (2) "you could not shake off the blues, even with help from your family and your friends," (3) "you had trouble keeping your mind on what you were doing," (4) "you were depressed," (5) "you were too tired to do things," (6) "you enjoyed life," (7) "you were sad,". The items were each measured on a scale of zero to three (0=never or rarely; 1=sometimes; 2= a lot of the time; 3=most of the time or all of the time). Item 6 was reverse coded prior to computing the additive index (Cronbach's Alpha= 0.81).

Adolescent factors controlled for in this study include history of juvenile delinquency, mental health at Wave I, social support at Wave I, and prior IPV victimization. *History of juvenile delinquency* was measured using 15 items. Respondents were asked whether in the past year they had: (1) "painted graffiti or signs on someone else's property or in a public place," (2) "deliberately damaged property that didn't

belong to you,” (3) “lied to your parents or guardians about where you had been or whom you were with,” (4) “took something from a store without paying for it,” (5) “got into a serious physical fight,” (6) “hurt someone badly enough to need bandages or care from a doctor or nurse,” (7) “ran away from home,” (8) “drove a car without its owner’s permission,” (9) “stole something worth more than \$50,” (10) “went into a house or building to steal something,” (11) “used or threatened to use a weapon to get something from someone,” (12) “sold marijuana or other drugs,” (13) “stole something worth less than \$50,” (14) “took part in a fight where a group of your friends was against another group,” (15) “were loud, rowdy, or unruly in a public place.” Each of these items was measured as dummy variables (0=no, 1=yes) and combined into an index ranging from zero (no juvenile delinquency) to six (answered yes to six or more items).

A measure was also included to take into account *mental health at Wave I*. The variable for measuring *mental health at Wave I* was computed by adding responses to 12 items. The items measured how often in the past week, (1) “you were bothered by things that usually don’t bother you,” (2) “you felt that you could not shake off the blues, even with help from your family and your friends,” (3) “you had trouble keeping your mind on what you were doing,” (4) “you felt depressed,” (5) “you thought your life had been a failure,” (6) “you felt fearful,” (7) “you were happy,” (8) “you felt lonely,” (9) “you enjoyed life,” (10) “you felt sad,” (11) “you felt that people disliked you,” and (12) “you felt life was not worth living.” The items were each measured on a scale of zero to three (0=never or rarely; 1=sometimes; 2= a lot of the time; 3=most of the time or all of the time). Items 7 and 9 were reverse coded prior to computing the additive index (Cronbach’s Alpha= 0.86). *Social support* was computed by adding responses to six

items from Wave I. Respondents were asked: (1) “how much do you feel that adults care about you,” (2) “how much do you feel that your teachers care about you,” (3) “how much do you feel that your parents care about you,” (4) “how much do you feel that people in your family understand you,” (5) “how much do you feel that you and your family have fun together,” and (6) “how much do you feel that your family pays attention to you.” Each of the items had initial response categories of one through five (1=not at all; 2=very little; 3=somewhat; 4=quite a bit; 5=very much) and combined into an additive index (Cronbach’s Alpha= 0.78).

*Prior IPV victimization* was controlled for in this study through questions pertaining to any romantic relationships respondents had in the past 18 months. This variable was constructed as a dichotomous variable (0=no; 1=yes) according to whether respondents answered yes to any of the following three items: (1) “Did a partner threaten you with violence,” (2) “Did a partner push or shove you,” and (3) “Did a partner throw something at you that could hurt you?”<sup>3</sup>

Items assessed in Wave III allowed for measures of adult behavior and relationship dynamics to be controlled for in this study. These include gender role attitudes, criminal history, alcohol use, drug use, and relationship type. *Gender role attitudes* were measured on a scale of one (strongly disagree) to five (strongly agree) where respondents were asked how much they agree or disagree with the following statement, “It is much better for everyone if the man earns the money and the woman takes care of the home and family.” *Criminal history* (0= no history; 1=has history) was

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<sup>3</sup> This question is referring to any partners within the last 18 months. If no partner in that time period, then the question was skipped. Legitimate skips may have to be recoded as “no prior IPV” because they didn’t experience it during that time frame (dependent upon comparison of results if these respondents are excluded).

based on self-reported previous arrests, and *alcohol use* was measured on a scale of zero to five where respondents were asked, “during the past 12 months, on how many days did you drink alcohol” (0=none; 1=1 or 2 days; 2=once a month or less; 3=2 or 3 days a month; 4=1 or 2 days a week; 5=3 or more days a week). In addition, *drug use* was based on five items. The items measured how often since June 1995, respondents had: (1) “used marijuana,” (2) “used any kind of cocaine – including crack, freebase, or powder,” (3) “used crystal meth,” (4) “used any other types of illegal drugs, such as LSD, PCP, ecstasy, mushrooms, inhalants, ice, heroin, or prescription medicines not prescribed for you,” or (5) “injected (shot up with a needle) any illegal drug, such as heroin or cocaine.” Each of these items was measured as dummy variables (0=no, 1=yes) and combined into an index ranging from zero (none) to two (answered yes to two or more items). Additionally, *relationship type* was created as dummy variables (0=no, 1=yes) for Married and Cohabiting (1), with Dating serving as the referent group (0).<sup>4</sup>

***Community-Level Variables.*** The Add Health Survey measures neighborhood factors at the block group level at Wave III. The central structural variable examined in this study is *immigrant concentration*. This variable was assessed using two items: the proportion of the population that is foreign-born and the proportion of households linguistically isolated (Cronbach’s Alpha= 0.85).

Three other structural factors described by social disorganization theory (Shaw and McKay 1942, 1969) as influencing social control and thus related to rates of violence in neighborhoods were also accounted for in this analysis. *Economic disadvantage* was computed as an index using five items: (1) proportion of female-headed households, (2)

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<sup>4</sup> One of the criteria for the couples sample was that respondent and partner had to be in an intact relationship.

proportion of households receiving public assistance, (3) proportion of population below the poverty level, (4) proportion 25 years and over with less than a high school diploma, and (5) proportion of persons 16 years and over unemployed (Insert Cronbach's Alpha= 0.82). Additionally, the remaining two structural variables were assessed using single items. *Residential instability* was measured by the proportion of occupied housing units moved into during the last 5 years. A range measuring the amount of racial dispersion in a neighborhood (0=completely homogenous to 1=completely heterogeneous) accounted for the *racial heterogeneity* variable. This variable was constructed based on a contextual variables measuring the proportion of racial groups (white, black, other) of an area. Following the lead of Hipp (2007), dispersion was then calculated using the following formula:<sup>5</sup>

$$EH_k = 1 - \sum_{j=1}^{j=J} G_j^2$$

### ***Analytical Strategy***

Several types of analyses will be conducted. Factor and reliability analyses of indexes will be performed and univariate analysis will be conducted for all variables to establish means and category percentages for the full sample. Descriptive analyses will also be performed separately for respondents in each of the IPV categories: no IPV, IPV perpetration, IPV victimization and bidirectional IPV. Bivariate analysis will be conducted to examine between group differences. This dissertation will examine the effects of individual- and neighborhood-level factors on four types of IPV, using seven

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<sup>5</sup> “Racial/ethnic heterogeneity (EH) in a neighborhood (block or tract)  $k$  by an identity based on a Herfindahl index of several racial/ethnic groupings, where  $G$  represents the proportion of the population of ethnic group  $j$  out of  $J$  ethnic groups. Subtracting from 1 makes this a measure of heterogeneity” (2007:666).



sets of multinomial logistic regression models. General linear mixed modeling will be used to assess the separate and combined effects of these multilevel variables on the prevalence of IPV.

Most sociological studies have focused on one level of analysis. However, there has been an increased interest in the utilization of multilevel modeling to more accurately capture the context in which social phenomena occur (Meier and Miethe 1993; Sampson and Lauritsen 1994). Multilevel analysis allows for the simultaneous examination of individual factors and community correlates, therefore enabling a more complete account of social processes, in this case IPV. Multilevel analysis can be accomplished through hierarchical modeling and traditional regression approaches. In recent years, HLM has been the favored method when working with nested data due to its ability to distinguish between- and within- group variance, and because it demands few assumptions (Raudenbush and Byrk 2002). However, a requirement of HLM is a large sample size, both in terms of the number of groups and the number of cases per group, to have power adequate to detect effects, especially at level-1. While there are no specific guidelines regarding the minimum number of groups or cases within groups, some authors have proposed recommendations (see Hox 1998; Kreft 1996) and it is well-established that small sample sizes are problematic.

The Add Health data used in this dissertation contain block groups with too few cases to provide adequate power to assess individual- and community-level effects on IPV (i.e. Wave III provides information on 13,995 respondents spread across 7,588 block groups), or reliable within-tract analysis (see Wiersema 1999). Therefore, this study uses

the traditional multilevel regression approach of incorporating individual attributes and community characteristics (e.g. Lauritsen 2001; Miethe and McDowall 1993).

Prior to running the models, collinearity diagnostics will be performed among the predictor variables; tolerance values less than .10 or variance inflation factors greater than 10 will be further investigated. Additionally, while multinomial logistic multilevel regression does not assume normality, linearity, or homoscedasticity, it assumes independence among the dependent variable categories. Therefore, the Hausman-McFadden test will be performed prior to the analysis to assess this assumption. Bivariate analysis of each individual- and neighborhood-level factor and IPV (physical and severe) will also be performed.

Figure 4.1 shows the series of multinomial logistic regression models estimated to test the relationship between the predictor variables and different forms of IPV in this dissertation. The first set of multinomial logistic regression models will assess the role of individual characteristics on IPV. Therefore, Models 1 and 2 examine the individual-level variables. Model 1 will include the relationship between the independent variable nativity status and IPV types (no IPV, unidirectional perpetration, unidirectional victimization, and bidirectional violence). Model 2 will include the relationship between all individual-level characteristics (nativity status, sex, race/ethnicity, age, educational attainment, employment status, income, household structure WIII mental health, history of juvenile delinquency, WI mental health, social support, gender role attitudes, criminal history, alcohol use, drug use, and relationship type) and IPV types. This will enable examination of hypothesis 1 and 2 concerning relationships between immigrant status and IPV and of

hypothesis 3 concerning relationships between gender and IPV, net of the effects of individual-level characteristics.

The next set of multinomial logistic regression models will examine the effects of community factors on IPV. Therefore, Models 3 and 4 will examine the effects of community-level variables. Model 3 will examine the effects of the independent variable neighborhood immigrant concentration on IPV types, thereby enabling the testing of hypothesis 4. In addition to immigrant concentration, Model 4 incorporates other neighborhood-level factors (economic disadvantage, residential instability, and racial heterogeneity) in an effort to determine whether these structural factors are significantly related to IPV, thereby enabling testing of hypothesis 5, and examine whether they alter the relationship in Model 3.

**Figure 4.1** Multinomial Logistic Regression Models Estimated for Dependent Variables

<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 4</i>	<i>Model 5</i>
Immigrant Status	Immigrant Status	--	--	Immigrant Status
	Sex	--	--	Sex
	Race/Ethnicity	--	--	Race/Ethnicity
	Age	--	--	Age
	Education	--	--	Education
	Employment	--	--	Employment
	Income	--	--	Income
	Household	--	--	Household
	Mental Health (WIII)	--	--	Mental Health (WIII)
	Hx Delinquency	--	--	Hx Delinquency
	Mental Health (WI)	--	--	Mental Health (WI)
	Social Support (WI)	--	--	Social Support (WI)
	Hx IPV Victimization	--	--	Hx IPV Victimization
	Gender Role Attitudes	--	--	Gender Role Attitudes
	Criminal Hx	--	--	Criminal Hx
	Alcohol Use	--	--	Alcohol Use
	Drug Use	--	--	Drug Use
	Relationship Type	--	--	Relationship Type
		Immi. Concentration	Immi. Concentration	Immi. Concentration
			Eco. Disadvantage	Eco. Disadvantage
			Res. Instability	Res. Instability
			R. Heterogeneity	R. Heterogeneity

Finally, Model 5 will include all of the variables in Model 2 and Model 4, presenting a multilevel assessment of individual- and community-level variables on the

prevalence of the IPV types. This will enable final testing of each of the proposed hypotheses. Models will first be ran for physical IPV and then for severe IPV.

Parameter estimation using maximum likelihood (MLE) will be examined to test model fit. Furthermore, the Likelihood Ratio Test will be used to assess whether the fit of the multilevel model is better than these less complex models. This will allow determination of the degree to which individual-level predictors are complemented by neighborhood conditions and whether relationships between structural factors and the IPV types are due to the concentration of individual level characteristics.

The next chapter reports the results of the univariate, bivariate, and multivariate analyses performed. Findings regarding each of the models assessing the relationship between individual- and community- level factors and the IPV types are provided. Specifically, results from the multilevel model will distinguish the individual characteristics that are robust and those impacted by structural factors, as well as evaluate the strength of community associations with physical and severe IPV.

## CHAPTER 5

### RESULTS

This chapter presents the results of the analyses concerning the effects of immigrant status and immigrant concentration on physical and severe IPV, net of the effects of various individual- and neighborhood-level predictors. Information on the indexes created and used in these analyses is presented first. The second section describes the results of the univariate analyses conducted for all variables, followed by the bivariate analyses. Finally, the results of the multivariate analyses using through multinomial logistic regression techniques enabling the testing of the study hypotheses are presented.

#### *Indexes*

Indexes were created for *immigrant concentration* and *economic disadvantage* in a neighborhood, *social support* at Wave I, and *mental illness* at Waves I and III. Factor analyses were conducted to determine whether the individual items used for each index represent a common construct. Immigrant concentration was assessed using two items: 1) proportion of foreign-born and 2) proportion of households linguistically isolated. Analysis indicated that the two variables were highly correlated ( $r= 0.85$ ,  $p< .001$ ), representing a common construct. Summing and then dividing by two z-scores for the items produced the index “*immigrant concentration*.”

Economic disadvantage was assessed using five items. As Table 5.1 shows, the factor loadings for proportion of female-headed households, households receiving public assistance, proportion of population below the poverty level, proportion 25 years and over with less than a high school diploma, and proportion of persons 16 years and over who were unemployed were all 0.72 or higher. Thus, the factor analysis indicated that the five items represented a common construct. The eigenvalue for this factor was 2.88 with

57.58% of variance and cumulative variance. That is, close to 58% of the total variance in the items was explained by one component. The Cronbach's test of the index showed it to be reliable at  $\alpha = 0.82$ . Summing and then dividing by five z-scores for the items produced the index "*economic disadvantage*."

Social Support at Wave I was measured using six item related to an adolescent's protective factors. The factor loadings ranged from .56 for "felt that your teachers care about you," to .80 for "felt that your family pays attention to you." Thus, the factor analysis indicated that the six items represented a common construct. The eigenvalue for this factor was 2.96 with 49.29% of variance and cumulative variance. That is, 49% of the total variance in the items was explained by one component. Cronbach's alpha for the additive index showed it to be reliable at  $\alpha = 0.78$ . The index "*Social Support*" was calculated by adding the responses to the six items.

Mental health at Wave I was assessed using 12 items. The factor loadings for all of the 12 items ranged from .52 to .80. Thus, the factor analysis results indicated that the 12 items represented a common construct. The eigenvalue for this factor was 4.97 with 41.39% of variance and cumulative variance. That is, at least 41% of the total variance in the items was explained by one component. Cronbach's alpha for the additive index showed it to be reliable at  $\alpha = 0.86$ . The index "*WI Mental Health*" was calculated by adding the responses to the 12 items.

Mental health at Wave III was assessed using seven items. The factor loadings for the seven items ranged from .52 to .83. Thus, the factor analysis results indicated that the seven items represented a common construct. The eigenvalue for this factor was 3.38 with 48.29% of variance and cumulative variance. That is, 48% of the total variance in

the items was explained by one component. The Cronbach's test showed the index to be reliable at  $\alpha = 0.81$ . Similar to *WI Mental Health*, the composite index "*WIII Mental Health*" was calculated by adding the responses to the seven items.

**Table 5.1** Pattern Matrix from Factor Analysis (n = 4,236)

Key Independent Variables	Factor Loadings	Correlation (r)	
<i>Immigrant Concentration</i>			
Proportion foreign-born		0.85	
Proportion of households linguistically isolated			
<hr/>			
Control Variables	Factor Loadings	Cronbach's Alpha ( $\alpha$ )	
<i>Economic Disadvantage</i> (Eigenvalue = 2.88)			
Proportion of female-headed households	0.75	0.82	
Proportion of households receiving public assistance	0.79		
Proportion of population below the poverty level	0.79		
Proportion 25 years and over with less than a high school diploma	0.74		
Proportion of persons 16 years and over unemployed	0.72		
% Variance	57.58		
Cumulative % Variance	57.58		
<i>WI Social Support</i> (Eigenvalue = 2.96)			
Feel that adults care about you	0.70	0.78	
Feel that your teachers care about you	0.56		
Feel that your parents care about you	0.63		
Feel that people in your family understand you	0.74		
Feel that you and your family have fun together	0.76		
Feel that your family pays attention to you	0.80		
% Variance	49.29		
Cumulative % Variance	49.29		
<i>WI Mental Health</i> (Eigenvalue = 4.97)			
Bothered by things that usually don't bother you	0.59	0.86	
Felt that you could not shake off the blues	0.76		
Had trouble keeping your mind on what you were doing	0.52		
Felt depressed	0.80		
Thought your life had been a failure	0.63		
Felt fearful	0.55		
Were happy	0.58		
Felt lonely	0.71		
Enjoyed life	0.59		
Felt sad	0.76		
Felt people disliked you	0.56		
Felt life was not worth living	0.59		
% Variance	41.39		
Cumulative % Variance	41.39		
<i>WIII Mental Health</i> (Eigenvalue = 3.38)			
Bothered by things that usually don't bother you	0.68	0.81	
Could not shake off the blues	0.77		
Had trouble keeping your mind on what you were doing	0.64		
Were depressed	0.83		
Were too tired to do things	0.52		
Enjoyed life	0.60		
Were sad	0.78		
% Variance	48.29		
Cumulative % Variance	48.29		

### *Univariate Results*

Means and category percentages were calculated for all variables for the full sample. Due to a low response rate for several of the variables (the largest being 1,070 missing responses for *Prior IPV*), these analyses used multiple-imputation to account for the missing responses that would have been eliminated as a result of listwise deletion in multivariate analysis.

Table 5.2 shows the distribution for the two dependent variables. Overall, 26.7% of the sample engaged in some type of physical IPV, which involved physical acts such as threats, slapping, shoving or pushing, and 13.0% engaged in some type of severe IPV, which involved sexual assault or injuries resulting from a fight. More specifically, for physical IPV 4.3% were victims only, 8.1% were perpetrators of unidirectional physical IPV, and 14.3% engaged in bidirectional physical IPV. In terms of severe IPV, 5.2% of respondents experienced victimization only, 2.2% were perpetrators only, and 5.5% engaged in bidirectional severe IPV.

**Table 5.2** Percentage Distributions for Dependent Variables (n = 4,236)

	No IPV		Victimization Only		Perpetration Only		Bidirectional	
	%	N	%	N	%	N	%	N
Physical Abuse	73.3	3,106	4.3	184	8.1	341	14.3	605
Severe Abuse	87.0	3,686	5.2	220	2.2	95	5.5	235



Descriptives for the independent and control variables are presented in Table 5.3. Concerning the focal individual-level predictor, 8.6% of respondents were foreign-born. In addition, females comprised 58.5% of the sample. The racial/ethnic composition of respondents consisted of White non-Hispanics (55.3%), Hispanics (17.3%), Black non-Hispanics (19.9%), and Other non-Hispanics (7.4%).

**Table 5.3** Descriptive Statistics for Independent Variables in Full Sample (n = 4,236)

	Mean	Std. Deviation	Min.	Max.
<i>Independent Individual-level</i>				
<i>Sociodemographic</i>				
Immigrant	.086	--	0.00	1.00
Female	.585	--	0.00	1.00
White	.553	--	0.00	1.00
Hispanic	.173	--	0.00	1.00
Black	.199	--	0.00	1.00
Other	.074	--	0.00	1.00
Age	22.075	1.741	18.00	27.00
Education	13.207	1.989	6.00	22.00
Employed	.759	--	0.00	1.00
Income	3.155	2.530	1.00	8.00
Lives with Others	.931	--	0.00	1.00
Mental Health	3.557	3.367	0.00	21.00
<i>Adolescent Factors</i>				
Delinquency Hx	2.590	2.092	0.00	6.00
Mental Health	5.876	4.177	0.00	13.00
Social Support	8.880	3.554	0.00	15.00
Prior IPV	.086	--	0.00	1.00
<i>Adult Behavior &amp; Attitudes</i>				
Gender Role Attitudes	2.477	1.335	1.00	5.00
Criminal Hx	.098	--	0.00	1.00
Alcohol Use	2.058	1.698	0.00	6.00
Drug Use	.614	.765	0.00	2.00
<i>Relationship Dynamics</i>				
Cohabiting	.242	--	0.00	1.00
Married	.247	--	0.00	1.00
Dating	.509	--	0.00	1.00
<i>Independent Community-Level</i>				
Immigrant Concentration	.000	.962	- 0.66	6.80
Economic Disadvantage	.000	.758	- 1.16	5.11
Residential Stability	.514	.174	0.00	0.92
Racial Dispersion	.292	.195	0.00	0.67

On average, respondents were 22 years of age at Wave 3 and had completed 13 years of formal education (at least one year of college). The majority of the sample was

employed for at least 10 hours a week (75.9%) and had a mean income of 3.2, representing an average yearly income of \$20,000 to \$29,999. In terms of mental health, respondents reported a score of 3.56 on average at Wave III, and a score of 5.88 at Wave I on average. That is, while the average score of depressive symptoms was low at Wave III, respondents reported experiencing more depressive symptoms as adolescents. In addition, respondents reported low levels of social support with an average score of 8.88, 8.6% reported being victims of prior IPV and 9.8% reported ever being arrested. Respondents also reported drinking 2.1 times a month on average and had used about one illegal drug since 1995 (mean= 0.6). In terms of relationship status, 24.2% were cohabiting and 24.7% were married, while the majority were dating (50.9%). Respondents also lived in fairly stable and racially homogeneous neighborhoods on average, reporting a mean score of .514 in residential stability and .292 on the racial dispersion index.

Descriptive statistics for the independent variables were also obtained separately for native and immigrant respondents for comparison. The results are shown in Table 5.4. In both the immigrant and native sample, approximately 70% had not experienced physical IPV; the difference was not significant. While the majority of the native sample (87.5%) and of the immigrant sample (81.8%) did not experience severe IPV, in terms of comparability, as Table 5.4 shows, there were significant differences in the likelihood of severe IPV between natives and immigrants ( $\chi^2 = 14.347$ , 3 df,  $p < .001$ ). The immigrant sample experience higher rates of severe victimization, severe perpetration, and severe bidirectional IPV, possibly due to immigrant-specific stressors that create conflict or increase vulnerability, both of which may escalate the severity of violence.

There were significant differences across several demographic characteristics by nativity. Females comprised a larger portion of the native sample, 59% as compared to 52%. As expected, the groups also differed in terms of racial/ethnic composition, with about one-half of the immigrant sample being Hispanic. Native respondents averaged 22 years of age, while immigrant respondents averaged 23 years of age, although both groups had completed at least one year of college. Similar to the native sample, the majority of respondents in the immigrant sample were not prior victims of IPV (90.0%).

**Table 5.4** Descriptive Statistics for Native and Immigrant Respondents (n = 4,236)

	<i>Native Sample</i>		<i>Immigrant Sample</i>		<i>Bivariate Analyses</i>	
	Mean	Std. Deviation	Mean	Std. Deviation	$\chi^2$	F
<b><i>Individual-level</i></b>						
<b><i>Sociodemographic</i></b>						
Female	.590	--	.520	--	5.92*	
White	.600	--	.090	--	337.15***	
Hispanic	.140	--	.490	--	280.53***	
Black	.210	--	.060	--	49.10***	
Other	.050	--	.360	--	476.41***	
Age	22.015	1.734	22.720	1.687		54.13***
Education	13.189	1.995	13.401	1.911		3.53
Employed	.750	--	.830	--	9.18**	
Income	3.156	2.540	3.148	2.416		0.02
Lives with Others	.930	--	.930	--	0.19	
Mental Health	3.575	3.392	3.359	3.081		1.36
<b><i>Adolescent Factors</i></b>						
Delinquency Hx	2.602	2.092	2.462	2.080		1.36
Mental Health	5.819	4.187	6.483	4.019		8.28**
Social Support	8.859	3.530	9.103	3.797		1.25
Prior IPV	.090	--	.090	--	0.02	
<b><i>Adult Behavior &amp; Attitudes</i></b>						
Gender Role Attitude	2.460	1.334	2.610	1.334	7.71	
Criminal Hx	.100	--	.070	--	4.05*	
Alcohol Use	2.099	1.706	1.628	1.549		25.64***
Drug Use	.630	.771	.420	.666	25.71***	
<b><i>Relationship Dynamics</i></b>						
Cohabiting	.250	--	.190	--	6.28*	
Married	.240	--	.340	--	18.14***	
Dating	.510	--	.470	--	2.25	
<b><i>Community-Level</i></b>						
Immigrant Concentration	-.099	.823	1.070	1.517		551.11***
Economic Disadvantage	-.009	.757	.114	.763		9.14**
Residential Stability	.517	.174	.491	.168		7.12***
Racial Dispersion	.282	.195	.396	.165		117.11***

Native sample N = 3,871

Immigrant sample N= 365

\*p< .05 \*\*p< .01 \*\*\*p< .001

These descriptive statistics also show that although there are visible differences in racial/ethnic composition, the immigrant and native samples were fairly similar in education, income, household, adult mental health, IPV history, and gender role attitudes. Interestingly, there were significant differences in adult behaviors related to criminal history ( $\chi^2 = 4.05$ , 3 df,  $p < .05$ ), alcohol use ( $F = 25.64$ ,  $p < .001$ ), and drug use ( $\chi^2 = 25.71$ , 3 df,  $p < .001$ ), with immigrants reporting lower rates of all three activities.

In terms of structural factors, there were significant differences in the neighborhoods in which immigrant and native respondents resided. On average, immigrants resided in neighborhoods with significantly higher levels of immigrant concentration ( $F = 551.11$ ,  $p < .001$ ), and economic disadvantage ( $F = 9.14$ ,  $p < .01$ ), and lower levels of residential stability ( $F = 7.12$ ,  $p < .01$ ). In addition, the neighborhoods where natives resided were significantly more racially homogeneous as compared to the neighborhood where immigrant respondents lived ( $F = 117.11$ ,  $p < .001$ ). These significant differences across native and immigrant groups on these potentially important predictors illustrate the need to account for them in multivariate analyses.

### ***Bivariate Results***

The bivariate relationships between the categories of the two dependent variables and the two focal predictor variables were examined using chi-square analysis ( $\chi^2$ ) and analysis of variance (ANOVA). In addition, separate chi-square analyses were used to examine the relationships between the two dependent variables and the nominal or ordinal control variables, and ANOVA was used to examine the relationships between the dependent variables and the continuous control variables. Chi-square analysis measures whether there are significant differences in the categories of the dependent

variables in terms of the various categories of the independent and control variables, while analysis of variance (ANOVA) tests whether there were mean differences in IPV types across the scores of the various independent and control variables.

Table 5.5 shows the chi-square results for the categories of physical abuse by immigrant status, as well as the analysis of variance (ANOVA) examining mean differences by neighborhood immigrant concentration across categories of physical abuse. The relationship between individual immigrant status and physical IPV was not statistically significant as indicated by the chi-square test of independence ( $\chi^2 = 3.83$ , 3 df,  $p < .30$ ). Differences in the mean physical abuse categories across rates of neighborhood immigrant concentration were also not statistically significant ( $F = 0.32$ ,  $p < .81$ ).

**Table 5.5 Bivariate Analyses Results for Physical IPV by Immigration Variables (n = 4,236)**

**Percent Difference among the Categories of Physical Abuse by Immigrant Status (Chi-Square Test of Independence)**

	% No IPV	% Victimization	% Perpetration	% Bidirectional
Immigrant Status				
Native	73.57	4.24	7.95	14.34
Immigrant	70.68	5.48	10.14	13.70
		X <sup>2</sup> = 3.83, 3 df, $p < 0.30$		

**Neighborhood Immigrant Concentration Means across Categories of Physical Abuse (ANOVA)**

	Mean			
	No IPV	Victimization	Perpetration	Bidirectional
Immigrant Concentration	0.01 (0.98)	- 0.01 (0.94)	0.00 (0.91)	-0.01 (0.91)
		F = 0.32, $p < 0.81$		

Standard Deviations are in parentheses. \* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$

The percent differences across categories of physical IPV by the control variables utilized in this study are shown in Table 5.6. In terms of the relationship between gender and categories of physical abuse, surprisingly men were more likely to not engage in any type of physical IPV (78.3% versus 69.8%) and were also more likely to be victimized

(7.2% versus 2.3%) as compared to women. Additionally, women were more likely than men to perpetrate physical IPV (11.7% versus 2.9%) and engage in bidirectional physical abuse (16.2% versus 11.6%). The chi-square test of independence indicated that the relationship between gender and physical IPV was statistically significant ( $\chi^2 = 181.90$ , 3 df,  $p < .001$ ).

Membership in specific racial/ethnic groups was related to physical IPV. As compared to non-White respondents, Whites had higher rates of no physical IPV and lower rates of victimization, perpetration, and bidirectional IPV. The relationship between the racial category White and physical IPV was statistically significant as indicated by the chi-square test of independence ( $\chi^2 = 42.04$ , 3 df,  $p < .001$ ). Conversely, Hispanics had lower rates of no physical IPV and higher rates of victimization, perpetration, and bidirectional IPV as compared to non-Hispanic respondents. The relationship between the racial/ethnic category Hispanic and physical IPV was also statistically significant ( $\chi^2 = 8.20$ , 3 df,  $p < .05$ ). Similar to Hispanics, Blacks also had lower rates of no physical IPV and higher rates of victimization, perpetration, and bidirectional IPV as compared to non-Black respondents. Results from the chi-square test of independence also show that the relationship between the racial category Black and physical IPV was statistically significant ( $\chi^2 = 27.59$ , 3 df,  $p < .001$ ). While Blacks, followed by Hispanics, had the highest rates of physical IPV, respondents who identified as members of Other racial/ethnic groups, had the lowest rates of physical IPV. However, the relationship between the racial category Other and physical IPV was not significant ( $\chi^2 = 1.69$ , 3 df,  $p < .70$ ).

**Table 5.6** Percent Differences among the Categories of Physical Abuse by Selected Control Variables  
(n=4,236)

	% No IPV	% Victimization	% Perpetration	% Bidirectional
<b>Sex***</b>				
Male	78.33	7.21	2.86	11.60
Female	69.76	2.32	11.71	16.21
		$X^2= 181.90, 3 \text{ df}, p < 0.001$		
<b>Race/Ethnicity – White***</b>				
Non-White	68.74	4.39	9.30	17.57
White	77.02	4.31	7.03	11.64
		$X^2= 42.04, 3 \text{ df}, p < 0.001$		
<b>Race/Ethnicity – Hispanic*</b>				
Non-Hispanic	74.16	4.32	7.68	13.83
Hispanic	69.30	4.46	9.78	16.46
		$X^2= 8.20, 3 \text{ df}, p < 0.05$		
<b>Race/Ethnicity – Black***</b>				
Non-Black	75.02	4.27	7.59	13.11
Black	66.48	4.65	9.86	19.01
		$X^2= 27.59, 3 \text{ df}, p < 0.001$		
<b>Race/Ethnicity – Other</b>				
Non-Other	73.31	4.40	8.14	14.15
Other	73.56	3.60	6.88	15.96
		$X^2= 1.69, 3 \text{ df}, p < 0.70$		
<b>Employment Status</b>				
Unemployed	72.48	4.14	9.08	14.29
Employed	73.62	4.42	7.69	14.27
		$X^2= 2.01, 3 \text{ df}, p < 0.70$		
<b>Household</b>				
Lives alone	78.24	1.83	8.08	11.86
Lives with others	72.84	4.55	8.07	14.54
		$X^2= 7.06, 3 \text{ df}, p < 0.10$		
<b>Prior IPV***</b>				
Is not a victim	74.67	4.34	7.61	13.38
Is a victim	59.10	4.15	12.44	24.31
		$X^2= 47.94, 3 \text{ df}, p < 0.001$		
<b>Gender Role Attitudes*</b>				
Strongly disagree	74.72	3.54	9.44	12.30
Somewhat disagree	72.75	4.30	7.08	15.88
Neither agree/disagree	73.80	5.00	6.94	14.26
Somewhat agree	73.04	4.54	6.78	15.63
Strongly agree	68.55	5.22	9.56	16.68
		$X^2= 21.61, 12 \text{ df}, p < 0.05$		
<b>Criminal History***</b>				
Never been arrested	74.21	3.76	8.42	13.61
Has been arrested	64.96	9.77	4.58	20.68
		$X^2= 55.14, 3 \text{ df}, p < 0.001$		
<b>Drug Use***</b>				
None	76.48	3.79	8.15	11.57
One drug	72.32	3.62	8.71	15.35
Two or more	64.79	7.25	6.59	21.37
		$X^2= 69.42, 6 \text{ df}, p < 0.001$		
<b>Relationship Type – Dating***</b>				
Not dating	66.61	5.55	9.17	18.68
Dating	79.80	3.26	6.89	10.04
		$X^2= 98.49, 3 \text{ df}, p < 0.001$		
<b>Relationship Type – Cohabiting***</b>				
Not cohabiting	76.31	4.05	7.54	12.10
Cohabiting	63.93	5.27	9.60	21.20
		$X^2= 68.16, 3 \text{ df}, p < 0.001$		
<b>Relationship Type – Married**</b>				
Not married	74.64	3.89	7.81	13.66
Married	69.31	5.74	8.75	16.20
		$X^2= 13.56, 3 \text{ df}, p < 0.01$		

Almost all of the control variables were associated with physical IPV. Prior IPV was significant related to physical IPV types ( $\chi^2 = 47.94, 3 \text{ df}, p < .001$ ). Respondents who were prior victims of IPV had higher rates of physical perpetration and bidirectional physical IPV as compared to respondents who were not prior victims of IPV. Results

from the chi-square test of independence also show that the relationship between gender role attitudes and physical IPV was statistically significant ( $\chi^2 = 21.61$ , 12 df,  $p < .05$ ). Criminal history was significantly related to physical IPV types ( $\chi^2 = 55.14$ , 3 df,  $p < .001$ ). Respondents with a criminal history were more likely than those without a criminal history to experience physical victimization and to engage in bidirectional physical IPV, and thus were less likely to be perpetrators. Drug use was significantly related to physical IPV types ( $\chi^2 = 69.42$ , 6 df,  $p < .001$ ). Respondents who had not used any illegal drugs since 1995 had the lowest rates of physical IPV, followed by those who had only used one drug. Respondents with the highest rates of drug use also had higher rates of physical victimization and bidirectional IPV. However, they had the lowest rates of perpetration.

Each relationship type included in the analysis was significantly related to physical IPV. As compared to non-dating respondents, dating respondents had higher rates of no physical IPV and lower rates of victimization, perpetration, and bidirectional IPV. The relationship between dating and physical IPV was statistically significant as indicated by the chi-square test of independence ( $\chi^2 = 98.49$ , 3 df,  $p < .001$ ). Cohabiting respondents had lower rates of no physical IPV and victimization, and higher rates of perpetration and bidirectional IPV, as compared to non-cohabiting respondents. The relationship between the relationship status cohabiting and physical IPV was also statistically significant ( $\chi^2 = 68.16$ , 3 df,  $p < .001$ ). Married respondents also had lower rates of no physical IPV, however they had higher rates of victimization, perpetration, and bidirectional IPV as compared to non-married respondents. The relationship between the relationship status married and physical IPV was statistically significant ( $\chi^2 = 13.56$ , 3 df,  $p < .01$ ). Finally, while several of the other control variables were related to physical



IPV types, there was not a statistically significant relationship between employment status or household structure and physical abuse.

Table 5.7 shows the results of the analysis of variance (ANOVA) examining the mean differences in continuous control variables across the categories of physical IPV. Bivariate relationships were significant for all of the variables. Differences across types of physical IPV were statistically significant for age ( $F= 11.02$ ,  $p < .000$ ) and education ( $F=121.09$ ,  $p < .000$ ). Older and more educated respondents were less likely to engage in any type of physical IPV, while younger respondents were most likely to participate in bidirectional IPV and those with lower educational attainment were more likely to be victimized or participate in bidirectional IPV. Differences across types of physical IPV were also statistically significant for income ( $F= 2.89$ ,  $p < .034$ ), with respondents reporting the highest income levels being more likely to perpetrate physical IPV and those with the lowest income levels experiencing the highest victimization rates. In addition, differences in mean mental health at Wave III across the categories of physical IPV were statistically significant ( $F= 373.16$ ,  $p < .000$ ). Respondents reporting the lowest levels of depressive symptoms were least likely to engage in physical IPV while those reporting the highest levels were most likely to perpetrate or participate in bidirectional physical abuse.

Several adolescent factors were also found to be statistically significant. Mean mental health at Wave I, social support at Wave I, and history of juvenile delinquency were each related ( $p < .000$ ) to physical IPV. Respondents with lower levels of depressive symptoms and past delinquency, as well as higher levels of social support, were more likely to report no IPV. Physical IPV victimization was most common among

respondents who reported lower levels of social support and higher levels of delinquency. Respondents who reported the lowest levels of social support and highest levels of delinquency were most likely to participate in bidirectional IPV. Finally, differences across types of physical IPV were also statistically significant for alcohol use in adulthood ( $F= 10.50, p < .000$ ), with respondents reporting the highest alcohol use being more likely to experience physical IPV victimization.

**Table 5.7 Mean Differences among Selected Control Variables across Categories of Physical Abuse (ANOVA) (n= 4,236)**

	Mean			
	No IPV	Victimization	Perpetration	Bidirectional
Age***	22.09 (1.74)	22.25 (1.68)	21.99 (1.72)	21.97 (1.76)
	F= 11.02, p < .000			
Education***	13.34 (2.00)	12.82 (1.74)	13.04 (2.01)	12.72 (1.90)
	F= 121.09, p < .000			
Income*	3.14 (2.50)	3.10 (2.35)	3.31 (2.74)	3.15 (2.59)
	F= 2.89, p < .034			
WIII Mental Health***	3.19 (3.12)	3.45 (3.48)	4.18 (3.36)	5.12 (3.97)
	F= 373.16, p < .000			
WI Mental Health***	5.64 (4.09)	5.21 (4.03)	6.02 (4.35)	7.16 (4.31)
	F= 144.59, p < .000			
WI Social Support***	9.03 (3.51)	8.57 (3.72)	8.95 (3.56)	8.17 (3.62)
	F= 61.87, p < .000			
Delinquency Hx***	2.48 (2.06)	2.83 (2.32)	2.63 (2.07)	3.08 (2.16)
	F= 89.94, p < .000			
Alcohol***	2.07 (1.69)	2.19 (1.87)	1.88 (1.60)	2.09 (1.73)
	F= 10.50, p < .000			
Economic Disadvantage***	- 0.03 (0.75)	0.09 (0.83)	0.10 (0.77)	0.07 (0.76)
	F= 36.86, p < .000			
Residential Stability**	0.51 (0.18)	0.50 (0.17)	0.52 (0.17)	0.52 (0.17)
	F= 5.03, p < .002			
Racial Dispersion***	0.29 (0.19)	.031 (0.19)	0.30 (0.21)	0.31 (0.19)
	F= 23.18, p < .000			

Standard Deviations are in parentheses. \*p< .05 \*\*p< .01 \*\*\*p< .001

In terms of community-level variables, there were differences in physical IPV associated with mean economic disadvantage ( $F= 36.86, p < .000$ ), residential stability ( $F= 5.03, p < .002$ ) and racial dispersion ( $F= 23.18, p < .000$ ). The results indicated that respondents living in areas with lower levels of economic disadvantage and racial dispersion were less likely to engage in physical IPV. Victimization and perpetration were most common in areas with higher levels of economic disadvantage and racial dispersion. In addition, respondents living in areas with the lowest levels of residential stability were more likely to experience physical IPV victimization and those residing in the highest levels were more likely to perpetrate or participate in bidirectional physical IPV .

The results of the bivariate analyses concerning the second dependent variable, severe IPV, are presented in Tables 5.8 through 5.10. Chi-square analyses assessing the percent differences among the categories of severe abuse by immigrant status, as well as the analysis of variance (ANOVA) examining mean differences among immigrant concentration in a neighborhood across categories of severe abuse are presented in Table 5.8. The relationship between immigrant status and severe IPV was statistically significant as indicated by the chi-square test of independence ( $\chi^2 = 14.35, 3 \text{ df}, p < .01$ ). As compared to native respondents, immigrants were more likely to report severe IPV victimization and perpetration, as well as severe bidirectional IPV. Although the majority (81.1%) of immigrant respondents did not report any type of severe abuse, 6.6% reported severe victimization only and 3.0% reported severe perpetration. The most notable difference was observed in the category of bidirectional IPV, where 9.3% of immigrants, as compared to 5.2% of natives, reported participating in this type of severe violence.

Differences in the mean severe abuse categories across rates of neighborhood immigrant concentration were also statistically significant ( $F = 3.75, p < .01$ ). The results indicated that respondents living in areas with higher levels of immigrant concentration were more likely to engage in severe IPV perpetration and bidirectional severe IPV.

**Table 5.8 Bivariate Analyses Results for Severe IPV by Immigration Variables (n = 4,236)**

**Percent Difference among the Categories of Severe Abuse by Immigrant Status (Chi-Square Test of Independence)**

	% No IPV	% Victimization	% Perpetration	% Bidirectional
Immigrant Status**				
Native	87.57	5.06	2.17	5.19
Immigrant	81.10	6.58	3.01	9.32
		X <sup>2</sup> = 14.35, 3 df, $p < 0.01$		

**Mean Difference among Composite Immigrant Concentration in a Neighborhood across Categories of Severe Abuse (ANOVA)**

	Mean			
	No IPV	Victimization	Perpetration	Bidirectional
Immigrant Concentration**	- 0.00 (0.96)	- 0.00 (0.86)	0.06 (0.92)	0.08 (1.02)
		F = 3.75, $p < 0.01$		

Standard Deviations are in parentheses. \* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$

The percent differences among categories of severe IPV by the control variables utilized in this study are shown in Table 5.9. Several control variables were related to severe IPV. However, gender was not found to be significantly related ( $\chi^2 = 7.42, 3 \text{ df}, p < .10$ ). In terms of other sociodemographic characteristics, the relationship between the racial category White and severe IPV was statistically significant ( $\chi^2 = 27.37, 3 \text{ df}, p < .001$ ). As compared to non-White respondents, Whites had higher rates of no physical IPV and lower rates of victimization, perpetration, and bidirectional IPV. While the racial categories of Hispanic and Black were not found to be significantly related to severe IPV, the relationship between the racial category Other and severe IPV was statistically significant ( $\chi^2 = 12.48, 3 \text{ df}, p < .01$ ). Members of Other racial/ethnic groups had lower rates of no physical IPV and higher rates of victimization, perpetration, and bidirectional IPV as compared to non-Other race respondents. Among respondents of Other

racial/ethnic groups, the majority (81.7%) did not engage in any type of severe IPV; however 5.43% reported severe victimization and 9.41% reported bidirectional IPV. Members of this group had the highest rates of severe perpetration and bidirectional IPV, as compared to Whites, Hispanics and Blacks.

Results from the chi-square tests of independence indicated that employment status ( $\chi^2 = 0.51$ , 3 df,  $p < .95$ ) and household structure ( $\chi^2 = 3.75$ , 3 df,  $p < .30$ ) were not significantly related to severe abuse. However, several other control variables were also related to severe IPV. Prior IPV was significantly related to severe IPV types ( $\chi^2 = 41.06$ , 3 df,  $p < .001$ ). Respondents who were prior victims of IPV had higher rates of severe victimization, perpetration and bidirectional IPV as compared to respondents who were not prior victims of IPV. The relationship between gender role attitudes and physical IPV was statistically significant ( $\chi^2 = 31.34$ , 12 df,  $p < .01$ ). Respondents who strongly disagreed with traditional gender roles had the highest rates of no severe IPV and were least likely to perpetrate or engage in this type of bidirectional IPV. In general, as agreement with traditional gender roles increased, the likelihood of severe bidirectional IPV increased as well.

The analyses also indicated that criminal history was significantly related to severe IPV types ( $\chi^2 = 36.86$ , 3 df,  $p < .001$ ). Respondents with a criminal history were more likely than those without a criminal history to experience every type of severe IPV. Drug use was significantly related to severe IPV types ( $\chi^2 = 65.47$ , 6 df,  $p < .001$ ). Respondents who had not used any illegal drugs since 1995 had the lowest rates of victimization, perpetration and bidirectional severe IPV, followed by those who had only used one drug. Respondents with the highest rates of drug use had the highest rates of

severe victimization, perpetration and bidirectional IPV, as well as the lowest rates of no severe IPV.

**Table 5.9** Percent Differences among the Categories of Severe Abuse by Selected Control Variables  
(n= 4,236)

	% No IPV	% Victimization	% Perpetration	% Bidirectional
Sex				
Male	87.86	4.22	2.59	5.34
Female	86.42	5.87	2.01	5.70
		$X^2=7.42, 3 \text{ df}, p < 0.10$		
Race/Ethnicity – White***				
Non-White	84.59	5.52	2.37	7.53
White	88.99	4.92	2.15	3.94
		$X^2=27.37, 3 \text{ df}, p < 0.001$		
Race/Ethnicity –Hispanic				
Non-Hispanic	87.38	5.19	2.23	5.20
Hispanic	85.31	5.17	2.31	7.21
		$X^2=4.62, 3 \text{ df}, p < 0.20$		
Race/Ethnicity - Black				
Non-Black	87.49	5.01	2.33	5.17
Black	85.16	5.89	1.92	7.04
		$X^2=6.17, 3 \text{ df}, p < 0.10$		
Race/Ethnicity – Other**				
Non-Other	87.45	5.16	2.15	5.24
Other	81.71	5.43	3.44	9.41
		$X^2=12.48, 3 \text{ df}, p < 0.01$		
Employment Status				
Unemployed	87.39	4.77	2.35	5.49
Employed	86.94	5.32	2.24	5.51
		$X^2=0.51, 3 \text{ df}, p < 0.95$		
Household				
Lives alone	89.12	4.98	0.69	5.21
Lives with others	86.83	5.20	2.37	5.59
		$X^2=3.75, 3 \text{ df}, p < 0.30$		
Prior IPV***				
Is not a victim	88.00	4.76	2.18	5.06
Is a victim	76.44	9.73	3.00	10.82
		$X^2=41.06, 3 \text{ df}, p < 0.001$		
Gender Role Attitudes**				
Strongly disagree	89.54	4.82	1.18	4.46
Somewhat disagree	87.02	5.57	2.47	4.94
Neither agree/disagree	85.84	5.52	2.62	6.03
Somewhat agree	83.55	5.87	3.80	6.78
Strongly agree	85.83	4.04	2.67	7.46
		$X^2=31.34, 12 \text{ df}, p < 0.01$		
Criminal History***				
Never been arrested	88.04	4.80	2.04	5.12
Has been arrested	77.49	8.76	4.22	9.53
		$X^2=36.86, 3 \text{ df}, p < 0.001$		
Drug Use***				
None	89.93	4.41	1.54	4.12
One drug	85.69	6.04	2.19	6.07
Two or more	79.67	6.38	4.65	9.30
		$X^2=65.47, 6 \text{ df}, p < 0.001$		
Relationship Type – Dating***				
Not dating	84.92	5.73	2.74	6.61
Dating	89.22	4.73	1.73	4.32
		$X^2=19.68, 3 \text{ df}, p < 0.001$		
Relationship Type – Cohabiting**				
Not cohabiting	88.01	4.96	1.98	5.05
Cohabiting	83.95	5.91	3.05	7.08
		$X^2=12.57, 3 \text{ df}, p < 0.01$		
Relationship Type - Married				
Not married	87.43	5.09	2.18	5.30
Married	85.83	5.48	2.45	6.24
		$X^2=1.96, 3 \text{ df}, p < 0.70$		

Dating and cohabiting were significantly related to severe IPV. As compared to non-dating respondents, dating respondents had higher rates of no severe IPV and lower rates of victimization, perpetration, and bidirectional IPV. The relationship between the relationship status of dating and severe IPV was statistically significant ( $\chi^2 = 19.68$ , 3 df,  $p < .001$ ). Cohabiting respondents had lower rates of no severe IPV, and higher rates of victimization, perpetration and bidirectional IPV, as compared to non-cohabiting respondents. The relationship between the relationship status cohabiting and physical IPV was also statistically significant ( $\chi^2 = 12.57$ , 3 df,  $p < .01$ ). The relationship between the relationship status married and severe IPV was not statistically significant ( $p < .70$ ).

The results of the analysis of variance (ANOVA) examining the mean differences in continuous control variables across the categories of severe IPV are presented in Table 5.10. Differences across types of severe IPV were statistically significant for age ( $F = 4.79$ ,  $p < .002$ ) and education ( $F = 31.04$ ,  $p < .001$ ). Results indicated that older and less educated respondents were more likely to engage in severe IPV perpetration and bidirectional severe IPV. Younger respondents were most likely to be victimized and those with highest educational attainment were more likely to experience no severe IPV. Differences across types of severe IPV were also statistically significant for income ( $F = 5.30$ ,  $p < .001$ ), with respondents reporting the highest income levels being more likely to report no severe IPV and those with the lowest income levels experiencing the highest victimization rates. In addition, differences in mean mental health at Wave III across the categories of severe IPV were statistically significant ( $F = 178.77$ ,  $p < .001$ ). Respondents reporting the lowest levels of depressive symptoms were least likely to engage in

physical IPV while those reporting the highest levels were most likely to be victimized or participate in bidirectional severe IPV.

**Table 5.10 Mean Differences among Selected Control Variables across Categories of Severe Abuse (ANOVA) (n= 4,236)**

	Mean			
	No IPV	Victimization	Perpetration	Bidirectional
Age**	22.06 (1.74)	22.04 (1.75)	22.21 (1.79)	22.22 (1.70)
			F= 4.79, p < .002	
Education***	13.25 (1.98)	13.02 (1.95)	12.97 (2.24)	12.79 (1.99)
			F= 31.04, p < .001	
Income***	3.17 (2.54)	2.93 (2.40)	2.95 (2.38)	3.10 (2.56)
			F= 5.30, p < .001	
WIII Mental Health***	3.37 (2.26)	4.79 (3.90)	4.23 (3.43)	5.00 (3.85)
			F= 178.77, p < .001	
WI Mental Health***	5.75 (4.14)	6.41 (4.30)	6.10 (4.08)	7.26 (4.31)
			F= 66.42, p < .001	
WI Social Support***	8.96 (3.52)	8.44 (3.46)	8.60 (3.72)	8.12 (3.93)
			F= 32.99, p < .001	
Delinquency Hx***	2.53 (2.07)	2.73 (2.14)	3.31 (2.19)	3.11 (2.18)
			F= 59.62, p < .001	
Alcohol***	2.04 (1.69)	2.23 (1.66)	2.34 (1.81)	2.19 (1.76)
			F= 13.92, p < .001	
Economic Disadvantage**	- 0.01 (0.76)	0.07 (0.75)	0.04 (0.72)	0.07 (0.77)
			F= 8.50, p < .001	
Residential Stability**	0.51 (0.17)	0.52 (0.17)	0.50 (0.18)	0.53 (0.17)
			F= 4.14, p < .006	
Racial Dispersion***	0.29 (0.19)	0.31 (0.20)	0.32 (0.19)	0.32 (0.19)
			F= 21.23, p < .001	

Standard Deviations are in parentheses. \*p< .05 \*\*p< .01 \*\*\*p< .001

Similar to the bivariate results concerning physical abuse, all three adolescent factors were found to be statistically significant. Respondents reporting no severe IPV



reported the lowest levels of depressive symptoms and delinquency, as well as the highest levels of social support. Conversely, those reporting high levels of depressive symptoms and past delinquency, as well as the lowest levels of social support, were most likely to participate in severe bidirectional IPV. Differences in mean mental health at Wave I ( $F=66.42, p < .001$ ), social support at Wave I ( $F=32.99, p < .01$ ), and history of juvenile delinquency ( $F=59.62; p < .001$ ) across types of severe IPV were statistically significant. In addition, alcohol use in adulthood was related to severe IPV ( $F=13.92, p < .001$ ), with respondents reporting the highest alcohol use being more likely to perpetrate severe IPV.

In terms of community-level variables, there were differences in severe IPV associated with mean economic disadvantage ( $F=8.50, p < .001$ ), residential stability ( $F=4.14, p < .006$ ) and racial dispersion ( $F=21.23, p < .001$ ). The results indicated that respondents living in areas with lower levels of economic disadvantage and racial dispersion were less likely to engage in severe IPV. Bidirectional severe IPV was most common in areas with the highest levels of economic disadvantage and racial dispersion, and lowest levels of residential stability.

### ***Multivariate Results***

The results of the five multinomial logistic regression models estimated for the dependent variables physical IPV and severe IPV are presented in Table 5.11 and Table 5.12, respectively. For each outcome, Models 1 and 2 examine the individual-level variables, Models 3 and 4 examine the community-level variables, and the full multilevel model is presented in Model 5. The analyses were structured in this manner to assess the separate and combined effects of these multilevel variables on the IPV types (versus no IPV) and enables testing of hypothesis one through hypothesis five. Models are first

shown for physical IPV and then for severe IPV. The logistic coefficients, odd ratios and robust Hubert-White standard errors are presented for each model.

Prior to conducting the multinomial logistic analysis, collinearity diagnostics were obtained for the variables included in the analysis. Results yielded variance inflation factors (VIF) of less than 10, demonstrating no issues of multicollinearity (Belsley, Kuh, and Welsch 1980). In fact, the largest VIF values were for neighborhood immigrant concentration (1.74) and the dichotomous variable for Hispanic (1.63), well below more conservative estimates indicative of collinearity (e.g. 4.0.; Neter, Wasserman, and Kutner 1983; O'Brien 2007).

Table 5.11 presents the results of the multinomial logistic regression analyses for physical IPV. Model 1 includes only physical IPV regressed on nativity status. Contrary to hypothesis 1, yet consistent with hypothesis 2 (and the bivariate results), the analysis shows that nativity and any physical IPV type (versus no IPV) are not significantly related. The Wald chi-square for this model was 3.65 ( $p < .30$ ).

The individual-level control variables were added in Model 2. Immigrant status remains statistically non-significant for physical victimization and bidirectional IPV; however, with these additional predictors included in the analyses immigrant status is significantly associated with physical IPV perpetration ( $b = .420$ ,  $p < .05$ ). That is, immigrants are more likely than natives to perpetrate physical abuse versus no IPV, net of the controls. Several control variables are related to the physical IPV types. In terms of sociodemographic factors, being female was statistically significant ( $p < .001$ ) and negatively related to physical IPV victimization. Females were less likely than males to be victims of unidirectional physical IPV (versus no IPV). Conversely, being female was

significantly and positively related to physical IPV perpetration ( $B= 1.600, p< .001$ ) and bidirectional physical IPV ( $b= .529, p< .001$ ) versus no IPV, respectively. Thus, compared to men, women were more likely to perpetrate physical IPV and engage in physical bidirectional IPV. This finding contradicts hypothesis 3 as it relates to physical IPV. In terms of racial/ethnic categories, Hispanic was positively related to physical perpetration ( $b= .417, p< .05$ ) and bidirectional physical IPV ( $b= .505, p< .001$ ). That is, Hispanics were more likely to perpetrate physical IPV and participate in physical bidirectional IPV as compared to Whites. Identifying as Black was also positively related to physical victimization ( $b= .573, p< .05$ ), physical perpetration ( $b= .645, p< .001$ ) and bidirectional physical IPV ( $b= 1.048, p< .001$ ). That is, as compared to Whites, Blacks were more likely to be victims and perpetrators of physical IPV, as well as more likely to participate in bidirectional physical abuse. In addition, members of Other racial/ethnic groups were significantly more likely to participate in bidirectional physical IPV ( $b= .677, p< .01$ ). Concerning age, a significant association was only observed in relation to bidirectional physical IPV ( $b= -.074, p< .05$ ), where each additional year of age decreases the likelihood of participating in bidirectional IPV. In addition, education was negatively related to bidirectional physical IPV ( $b= -.056, p< .05$ ), while WIII mental health was positively related to physical perpetration ( $b= .061, p< .001$ ) and bidirectional physical IPV ( $b= .114, p< .001$ ). Concerning adolescent factors, WI mental health was negatively related to physical victimization ( $b= -.056, p< .05$ ). In addition, prior IPV was positively related to physical perpetration ( $b=.621, p< .001$ ) and bidirectional physical abuse ( $b=.615, p< .001$ ).

Criminal history and drug use were the two adult behaviors significantly associated with physical IPV. Respondents with a criminal history were more likely to be victims of physical IPV ( $b = .715, p < .01$ ) and also more likely to participate in bidirectional physical IPV ( $b = .407, p < .05$ ) than no IPV, respectively. In addition, each unit increase in drug use resulted in an increase in the likelihood of victimization ( $b = .316, p < .05$ ) and of participating in bidirectional IPV ( $b = .391, p < .001$ ). Finally, both relationship types included in Model 2 were significantly associated with each type of physical IPV. As compared to respondents in dating relationships, cohabiting respondents were significantly more likely to be victims of physical IPV ( $b = .645, p < .05$ ), perpetrators of physical IPV ( $b = .602, p < .001$ ) and to participate in bidirectional IPV ( $b = 1.032, p < .001$ ) than no IPV, respectively. Similar results were observed among married respondents, such that being married increased the odds of experiencing physical victimization ( $b = .854, p < .001$ ), perpetrating physical IPV ( $b = .456, p < .01$ ), and participating in bidirectional IPV ( $b = .934, p < .001$ ) as compared to those dating. The Wald chi-square for the model was 684.02 ( $p < .001$ ), indicating a statistically significant improvement in fit from Model 1 ( $\Delta X^2 = 680.37, \Delta df = 60, p < .001$ ).

Model 3 includes only physical IPV regressed on neighborhood immigrant concentration. There is no significant association between immigrant concentration and the physical IPV types. These results are inconsistent with the relationship posited in hypothesis 4, but consistent with bivariate results. The Wald chi-square for this model was .26 ( $p < .95$ ). The community-level control variables were incorporated in Model 4. When these control variables were added, immigrant concentration attains statistical significance ( $b = -.119, p < .05$ ) and is negatively related to bidirectional physical IPV

versus no IPV. That is, each unit increase in neighborhood immigrant concentration results in a decrease in the likelihood of participating in bidirectional IPV versus no IPV. This finding provides partial support for hypothesis 4. Consistent with hypothesis 5, neighborhood economic disadvantage is significantly and positively related to physical victimization ( $b = .194, p < .05$ ), physical perpetration ( $b = .214, p < .01$ ), and bidirectional IPV ( $b = .147, p < .05$ ). Neighborhood stability was found to be significantly and positively related ( $b = .573, p < .05$ ) only to bidirectional physical IPV, as was racial dispersion in a neighborhood ( $b = .891, p < .01$ ), providing partial support for hypothesis 5. The Wald chi-square for the model was 36.91 ( $p < .001$ ), indicating a statistically significant improvement in fit from Model 3 ( $\Delta X^2 = 36.65, \Delta df = 9, p < .001$ ).

Model 5 contains all of the variables included in the first four models, enabling examination of their joint effects. Contrary to hypothesis 1 and partially consistent with hypothesis 2, neither nativity and physical victimization or bidirectional physical abuse are significantly related. However, immigrant status remains positively and significantly related to physical perpetration ( $b = .482, p < .05$ ). Sex remains a highly significant ( $p < .001$ ) predictor of physical IPV, with females being less likely to experience victimization, more likely to perpetrate, and more likely to participate in bidirectional violence, which is contrary to hypothesis 3. In this model, immigrant concentration is no longer significantly related to bidirectional IPV, therefore not providing support for hypothesis 4. Economic disadvantage and residential stability are no longer significantly related to bidirectional physical IPV in the full model, thereby yielding results contrary to hypothesis 5. With the exception of the relationship between Black and physical victimization, and educational attainment and bidirectional physical IPV, the remaining

individual-level control variables that were significant in Model 2 remained statistically significant in the full model for each of the physical IPV types. The Wald chi-square for this model was 689.36 ( $p < .001$ ).

The likelihood ratio test was performed to assess whether the fit of the full multilevel model was better than the less complex models. In the case of physical IPV types, the full multilevel model (Model 5) was not a better fit than the individual-level model (Model 2), as they both fit equally well ( $\Delta X^2 = 14.34$ ;  $\Delta df = 12$ ;  $p < .50$ ). This suggests that individual-level factors may play a more significant role than community factors in predicting physical IPV victimization, perpetration and bidirectional abuse.

Table 5.12 presents the results of the multinomial logistic regression analyses for severe IPV. Model 1 includes only severe IPV regressed on nativity status. The analysis shows that nativity and severe bidirectional IPV are significantly related ( $b = .668$ ,  $p < .01$ ), with immigrants more likely than natives to participate in bidirectional severe abuse versus no IPV. Therefore, hypotheses 1 and 2 are not supported by this finding. The Wald chi-square for this model was 12.69 ( $p < .01$ ).

Model 2 allows assessment of the relationship between immigrant status and severe IPV types, net of the effects of the individual-level control variables. In terms of bidirectional severe IPV, immigrant status remains statistically significant ( $b = .527$ ,  $p < .05$ ) despite a decrease in the multinomial log odds. In addition, immigrant status attains significance ( $b = .530$ ,  $p < .05$ ) and is now positively related to severe IPV victimization. That is, net of the other individual-level predictors, immigrants were more likely than natives to be victims of severe abuse versus no IPV. Sex was related to severe IPV victimization in this model. Consistent with hypothesis 3, gender was significantly ( $b =$

.461,  $p < .01$ ) and positively related to severe IPV victimization. That is, women were more likely than men to be victims of severe abuse. In terms of racial/ethnic categories, identifying as Hispanic was positively related to bidirectional severe IPV ( $b = .539$ ,  $p < .01$ ) and identifying as Black was positively related to severe victimization ( $b = .447$ ,  $p < .01$ ) and bidirectional severe IPV ( $b = .969$ ,  $p < .001$ ). In addition, being a member of Other racial/ethnic groups was also positively related to bidirectional severe abuse ( $b = 1.009$ ,  $p < .001$ ). Hispanic, Black and Other race respondents were more likely than Whites to participate in bidirectional severe IPV. Furthermore, Black respondents were more likely than White respondents to be victims of severe abuse. Wave III mental health was also significantly and positively related to severe victimization ( $b = .093$ ,  $p < .001$ ) and bidirectional abuse ( $b = .087$ ,  $p < .001$ ). That is, each unit increase in depressive symptoms score was associated with higher likelihoods of victimization and of bidirectional severe IPV.

Prior IPV was the only adolescent factor related to severe IPV. As compared to non-victims of prior IPV, victims of prior IPV were significantly more likely to be victims of severe abuse ( $b = .729$ ,  $p < .001$ ) and to participate in bidirectional severe IPV ( $b = .648$ ,  $p < .01$ ). Several adult behavioral and attitudinal variables were also significant. The analysis indicated that gender role attitudes were significantly related to perpetration of severe IPV ( $b = .232$ ,  $p < .01$ ) and participate in bidirectional severe IPV ( $b = .117$ ,  $p < .05$ ). That is, respondents with higher levels of agreement with traditional gender roles were more likely to be perpetrators and more likely to participate in bidirectional IPV than no IPV, respectively. Criminal history was significantly and positively related to severe victimization ( $b = .758$ ,  $p < .01$ ) and bidirectional IPV ( $b = .473$ ,  $p < .05$ ). Therefore,

respondents with a criminal history were more likely than those without such histories to be victims of severe IPV and participate in bidirectional severe IPV. Finally, each unit increase in drug use resulted in a statistically significant increase in the multinomial log odds of severe perpetration ( $b = .565$ ,  $p < .001$ ) and bidirectional severe IPV ( $B = .493$ ,  $p < .001$ ).

In terms of relationship characteristics, Model 2 shows that cohabiting increases the likelihood of bidirectional IPV as compared to dating. In addition, married respondents were more likely than respondents in dating relationships to participate in bidirectional IPV. The Wald chi-square for this model was 288.08 ( $p < .001$ ), indicating a statistically significant improvement in fit from Model 1 ( $\Delta X^2 = 275.39$ ,  $\Delta df = 60$ ,  $p < .001$ ).

Model 3 includes only severe IPV regressed on neighborhood immigrant concentration. The results show that they are not significantly related. Therefore, this analysis did not support hypothesis 4, which predicted that neighborhoods with large concentrations of immigrants would experience lower levels of IPV. The Wald chi-square for this model was 1.82 ( $p < .70$ ). Model 4 included all of the community-level control variables, and immigrant concentration remained non-significant. Racial dispersion was statistically significant and positively related to severe victimization ( $b = .397$ ,  $p < .05$ ) and bidirectional abuse ( $b = .955$ ,  $p < .05$ ). That is, a one unit increase in neighborhood racial dispersion increased the likelihood of severe IPV victimization and of participation in bidirectional severe IPV versus no IPV. None of the other community-level variables were significantly related to severe IPV. The Wald chi-square for this model was 18.39



( $p < .20$ ), which is not significant; however, it is reflective of improved fit relative to Model 3 ( $\Delta X^2 = 16.57$ ,  $\Delta df = 9$ ,  $p < .10$ ).

All individual- and community-level variables were included in Model 5. In the full model immigrant status remained a significant predictor of severe victimization ( $b = .572$ ,  $p < .05$ ) and of bidirectional severe IPV ( $b = .561$ ,  $p < .05$ ), indicating that its effects were robust even when neighborhood factors were included. Therefore, hypothesis 1 was supported and hypothesis 2 was partially supported as they relate to severe abuse. In terms of the second focal predictor variable, and contrary to hypothesis 4, the relationship between immigrant concentration and severe abuse remained not significant. Consistent with hypothesis 3, the relationship between being female and severe victimization remained significant ( $b = .457$ ,  $p < .01$ ). Finally, all of the control variables that were significant in previous models remained statistically significant in Model 5, with the exception of specific racial/ethnic categories and racial dispersion. In Model 2, Black respondents were more likely than white respondents to be victims of severe abuse; however this association disappeared in the full model. In addition, while racial dispersion remained statistically significant ( $b = .862$ ,  $p < .05$ ) and positively related to severe victimization, its association with bidirectional severe IPV was not significant in the full model. This finding provides partial support for hypothesis 5.

The likelihood ratio test indicated that the full multi-level model was not a better fit than the individual-level model for explaining severe IPV types ( $\Delta X^2 = 10.11$ ;  $\Delta df = 12$ ;  $p < .95$ ). Similar to the model fit assessment for physical IPV, this suggests that individual-level factors may play a more important role in predicting severe IPV victimization, perpetration and bidirectional abuse.

**Table 5.11 Multinomial Logistic Regression for Physical IPV (no IPV as comparison)**

	Victimization Only			Perpetration Only			Bidirectional			Wald $\chi^2$	df
	AME	Coeff.	SE	AME	Coeff.	SE	AME	Coeff.	SE		
<i>Model 1</i>											
Immigrant	.012	.298	.247	.023	.297	.186	-.006	-.005	.164		
Constant		-2.855	.084***		-2.238	.061***		-1.635	.047***	3.65	3
<i>Model 2</i>											
Immigrant	.016	.397	.295	.032	.420	.214*	-.007	.027	.196		
Female	-.042	-.855	.186***	.090	1.600	.184***	.046	.529	.112***		
Hispanic	-.003	.044	.232	.023	.417	.168*	.054	.505	.143***		
Black	.014	.573	.231*	.029	.645	.163***	.119	1.048	.131***		
Other	-.007	-.036	.378	-.006	.076	.268	.087	.677	.204**		
Age	.001	.008	.051	.000	-.021	.037	-.008	-.074	.031*		
Education	-.002	-.060	.043	-.003	-.052	.034	-.005	-.056	.028*		
Employed	-.002	-.018	.194	-.004	-.016	.148	.021	.190	.129		
Income	-.001	-.022	.033	.002	.020	.024	-.001	-.009	.019		
Lives with Others	.022	.687	.462	-.013	-.181	.256	-.014	-.120	.209		
Mental Health (WIII)	.001	.048	.028	.003	.061	.017***	.011	.114	.014***		
Hx Delinquency	-.001	-.011	.039	.003	.050	.035	.003	.032	.026		
Mental Health (WI)	-.002	-.056	.024*	-.002	-.029	.017	.003	.019	.013		
Social Support (WI)	-.001	-.032	.025	.001	.012	.020	-.001	-.008	.015		
Prior IPV	-.003	.079	.423	.040	.621	.206**	.065	.615	.186***		
Gender Role Attitudes	.000	-.002	.066	.002	.038	.049	.005	.050	.037		
Criminal Hx	.032	.715	.217**	-.010	-.020	.273	.043	.407	.161*		
Alcohol Use	-.002	-.034	.056	.003	.043	.048	.004	.042	.036		
Drug Use	.010	.316	.125*	.001	.108	.089	.040	.391	.074***		
Cohabiting	.018	.645	.208*	.026	.602	.154***	.115	1.032	.122***		
Married	.029	.854	.215***	.015	.456	.161**	.101	.934	.139***		
Constant		-2.771	1.252*		-3.213	.972**		-1.721	.788	684.02***	63
<i>Model 3</i>											
Immigrant Concentration	-.001	-.021	.080	.000	-.004	.059	-.002	-.017	.046		
Constant		-2.826	.079***		-2.210	.057***		-1.636	.046***	.26	3
<i>Model 4</i>											
Immigrant Concentration	-.004	-.133	.097	-.005	-.093	.067	-.013	-.119	.057*		
Economic Disadvantage	.006	.194	.099*	.013	.214	.072**	.014	.147	.059*		
Residential Stability	-.007	-.044	.442	.019	.347	.348	.066	.573	.273*		
Racial Dispersion	.023	.741	.467	.029	.571	.357	.097	.891	.273**		
Constant		-3.031	.309***		-2.565	.235***		-2.201	.188***	36.91***	12

Table 5.11 (cont.) Multinomial Logistic Regression for Physical IPV (no IPV as comparison)

	Victimization Only		Perpetration Only		Bidirectional		Wald $\chi^2$	df
	AME	Coeff.	AME	Coeff.	AME	Coeff.		
<i>Model 5</i>								
Immigrant	.019	.453	.037	.482	-.003	.075	.199	
Female	-.043	-.868	.090	1.594	.047	.530	.112***	
Hispanic	-.004	.017	.026	.464	.058	.546	.162***	
Black	.005	.364	.022	.545	.117	1.000	.144***	
Other	-.008	-.089	-.006	.070	.084	.653	.214***	
Age	.000	.011	-.001	-.021	-.008	-.072	.031*	
Education	-.002	-.049	-.002	-.040	-.005	-.052	.028	
Employed	-.001	.004	-.003	-.003	.021	.198	.129	
Income	-.001	-.026	.002	.018	-.001	-.009	.019	
Lives with Others	.023	.722	-.014	-.189	-.016	-.137	.211	
Mental Health (WIII)	.001	.050	.003	.062	.011	.115	.014***	
Hx Delinquency	-.001	-.014	.003	.051	.003	.032	.026	
Mental Health (WI)	-.002	-.059	-.002	-.031	.003	.018	.013	
Social Support (WI)	-.001	-.032	.001	.012	-.001	-.008	.015	
Prior IPV	-.004	.062	.038	.604	.064	.605	.185***	
Gender Role Attitudes	.000	.001	.002	.036	.005	.048	.037	
Criminal Hx	.031	.706	-.009	-.012	.044	.413	.162*	
Alcohol Use	-.001	-.027	.003	.048	.004	.044	.037	
Drug Use	.010	.322	.001	.108	.040	.392	.074***	
Cohabiting	.017	.633	.026	.613	.119	1.046	.123***	
Married	.028	.840	.015	.456	.102	.936	.140***	
Immigrant Concentration	-.006	-.164	-.007	-.118	-.008	-.096	.069	
Economic Disadvantage	.008	.201	.006	.090	-.004	-.009	.071	
Residential Stability	-.004	.001	.017	.330	.046	.459	.316	
Racial Dispersion	.028	.801	.016	.338	.038	.435	.310	
<i>Constant</i>		-3.228		-3.616		-2.154	698.36***	75
		1.269*		1.004***		.805**		

N= 4,236

\*p&lt;.05, \*\*p&lt;.01, \*\*\*p&lt;.001; Robust (Hubert-White) standard errors

**Table 5.12 Multinomial Logistic Regression for Severe IPV (no IPV as comparison)**

	Victimization Only			Perpetration Only			Bidirectional			Wald $\chi^2$	df
	AME	Coeff.	SE	AME	Coeff.	SE	AME	Coeff.	SE		
<i>Model 1</i>											
Immigrant	.015	.338	.231	.007	.360	.336	.042	.668	.199**		
Constant		-2.251	.074***		-3.690	.113***		-2.826	.073***	12.69**	3
<i>Model 2</i>											
Immigrant	.027	.530	.253*	.005	.296	.355	.027	.527	.239*		
Female	.020	.461	.171**	.002	.127	2.55	.011	.268	.166		
Hispanic	-.002	.004	.205	.001	.102	3.24	.031	.539	.205**		
Black	.018	.447	.210*	.004	.303	3.40	.058	.969	.206***		
Other	.002	.186	.316	.014	.669	3.57	.067	1.009	.281***		
Age	-.001	-.019	.050	.001	.066	.068	.002	.035	.044		
Education	-.001	-.023	.042	.000	.001	.065	-.002	-.049	.043		
Employed	.011	.248	.184	.000	.024	2.51	.006	.139	.196		
Income	-.002	-.044	.030	-.001	-.044	.049	-.001	-.021	.029		
Lives with Others	-.002	-.024	.312	.015	1.011	.739	-.005	-.066	.308		
Mental Health (WIII)	.004	.093	.019***	.001	.056	.029	.004	.087	.018***		
Hx Delinquency	-.001	-.024	.038	.002	.101	.058	.000	.011	.037		
Mental Health (WI)	.000	-.008	.021	-.001	-.024	.030	.001	.026	.019		
Social Support (WI)	-.001	-.013	.022	.000	.018	.033	.000	-.005	.023		
Prior IPV	.040	.729	.209***	.003	.240	3.59	.034	.648	.234**		
Gender Role Attitudes	.000	.021	.056	.005	.232	.074**	.005	.117	.053*		
Criminal Hx	.043	.758	.223**	.007	.404	3.23	.022	.473	.224*		
Alcohol Use	.003	.073	.049	.000	.018	.075	.002	.053	.050		
Drug Use	.005	.163	.106	.011	.565	1.55***	.023	.493	.109***		
Cohabiting	.012	.299	.191	.009	.463	2.75	.024	.475	.176**		
Married	.014	.337	.201	.008	.400	3.01	.027	.534	.196**		
Constant		-3.376	1.171**		-8.127	1.834***		-5.207	1.192***	288.08***	63
<i>Model 3</i>											
Immigrant Concentration	.000	.000	.068	.001	.061	.092	.004	.081	.064	1.82	3
Constant		-2.820	.071***		-3.658	.104***		-2.756	.068***		
<i>Model 4</i>											
Immigrant Concentration	-.004	-.088	.079	.000	-.015	.117	.000	.002	.080		
Economic Disadvantage	.005	.104	.085	.000	.027	.140	.003	.063	.191		
Residential Stability	.025	.558	.412	-.004	-.106	.634	.036	.727	.429		
Racial Dispersion	.038	.843	.397*	.015	.793	.641	.046	.955	.411*		
Constant		-3.366	.261***		-3.844	.429***		-3.423	.293***	18.39	12

Table 5.12 (cont.) Multinomial Logistic Regression for Severe IPV (no IPV as comparison)

	Victimization Only			Perpetration Only			Bidirectional			Wald $\chi^2$	df
	AME	Coeff.	SE	AME	Coeff.	SE	AME	Coeff.	SE		
<i>Model 5</i>											
Immigrant	.029	.572	.259*	.005	.296	.356	.029	.561	.244*		
Female	.020	.457	.172**	.002	.125	.254	.011	.270	.166		
Hispanic	-.006	-.070	.235	-.001	.001	.363	.033	.570	.236*		
Black	.008	.271	.241	.000	.135	.384	.058	.945	.231***		
Other	-.003	.068	.343	.012	.575	.381	.067	.986	.301**		
Age	-.001	-.024	.050	.001	.068	.068	.002	.036	.044		
Education	.000	-.010	.043	.000	.002	.066	-.002	-.047	.044		
Employed	.011	.263	.187	.000	.034	.251	.006	.144	.196		
Income	-.002	-.046	.030	-.001	-.047	.049	-.001	-.021	.028		
Lives with Others	-.003	-.045	.312	.015	1.030	.741	-.006	-.087	.309		
Mental Health (WIII)	.004	.093	.019***	.001	.055	.029	.004	.087	.018***		
Hx Delinquency	-.001	-.026	.038	.002	.099	.058	.000	.011	.037		
Mental Health (WI)	-.001	-.010	.021	-.001	-.025	.031	.001	.025	.019		
Social Support (WI)	-.001	-.013	.022	.000	.019	.033	.000	.004	.023		
Prior IPV	.039	.718	.212**	.003	.241	.357	.034	.640	.235**		
Gender Role Attitudes	.000	.018	.055	.005	.238	.075**	.005	.114	.053*		
Criminal Hx	.043	.760	.225**	.007	.403	.323	.022	.478	.224*		
Alcohol Use	.004	.083	.049	.000	.024	.076	.002	.054	.050		
Drug Use	.005	.166	.106	.011	.565	.155***	.023	.492	.109***		
Cohabiting	.013	.321	.193	.009	.451	.273	.024	.488	.178**		
Married	.015	.353	.204	.007	.386	.297	.027	.537	.197**		
Immigrant Concentration	-.004	-.089	.101	-.001	-.071	.146	-.003	-.065	.102		
Economic Disadvantage	.005	.100	.102	.002	.091	.164	-.002	-.030	.108		
Residential Stability	.031	.664	.460	-.007	-.245	.701	.020	.447	.484		
Racial Dispersion	.039	.862	.430*	.016	.807	.734	.012	.346	.452		
<i>Constant</i>		-3.992	1.194**		-8.300	1.920***		-5.561	1.232***	298.19***	75

N= 4,236

\*p&lt;.05, \*\*p&lt;.01, \*\*\*p&lt;.001; Robust (Hubert-White) standard errors

### *Summary*

This chapter began with a description of the factor and reliability analysis conducted to create indexes that represent common constructs. Descriptive statistics for the dependent and focal predictor variables, as well as individual- and community-level controls, were then presented. Bivariate analysis results showed that physical abuse did not differ by immigrant status, nor did it differ by neighborhood immigrant concentration. Concerning the second dependent variable, bivariate results indicated that severe abuse varied significantly by immigrant status and by immigrant concentration in a neighborhood.

Multinomial logistic regression results indicated that immigrant status was significantly associated with physical IPV perpetration, severe IPV victimization, and severe bidirectional IPV. Results also indicated that immigrant concentration was not significantly related to any of the physical IPV or severe IPV types. In terms of sex differences, females were significantly more likely to be perpetrators of physical IPV, victims of severe IPV, and to experience severe IPV victimization. In addition, economic disadvantage was not significantly related to any physical or severe IPV types, while racial dispersion was significantly and positively related to severe IPV victimization. These results suggest that community structural factors cannot account for the effects of the individual and relational indicators of IPV in this study.

Chapter 6 discusses the implications of the key findings of the analyses. The contributions and limitations of the study are also considered, as well as possible directions for future research.

## CHAPTER 6

### DISCUSSION AND CONCLUSION

This dissertation examined the impact of nativity status and neighborhood immigrant concentration on IPV types, net of the effects of individual, relational and neighborhood factors, and incorporated social disorganization theory as a major theoretical framework. Scholarly work over the last few decades has increased understanding of IPV; however, there has primarily been a focus on individual-level risk factors and outcomes. There has also been a lack of comparative quantitative research on differences in IPV among native and immigrant populations, as well as the role that immigrant communities may play for such violence. Recent developments in the field have included a call for a shift toward multilevel approaches to the study of IPV, an acknowledgement of neighborhood influences on crime inclusive of IPV, and have produced a lack of evidence for an immigrant-fostering-crime relationship. However, disagreement on the role of gender in IPV directionality remains.

This dissertation attempted to help address existing gaps in the literature by examining whether there are differences among native and immigrant populations in the risk of IPV and in the neighborhoods in which they reside. A key contribution of this research was to incorporate individual, relationship and community correlates of IPV and in its specific focus on immigration in the examination of different forms of IPV. In addition, this study considered whether there is evidence of gender symmetry in IPV. To address these issues this study used the Add Health data, a nationally representative sample of young adults. The results presented in the previous chapter demonstrated that while neighborhood context does play a role in the likelihood of certain IPV types,

individual-level factors are resilient predictors of this type of violence. This is reflected in the findings pertaining to the immigration variables, such that nativity status remained significantly related to several types of IPV, while neighborhood immigrant concentration was not associated with any IPV type in the full models. This chapter summarizes the overall findings of the study and discusses the implications of the results concerning immigrants and IPV, as well as the other key predictors. Four key conclusions are drawn and discussed in detail below. Limitations and directions for future research are also provided.

### **Discussion**

This research showed several noteworthy findings. Overall, four of the five proposed hypotheses were partially supported. First, the results indicated that immigrant status was positively associated with physical perpetration and severe victimization. This partially supported hypothesis one, which proposed that immigrants would be more likely to perpetrate and be victims of both types of IPV. These findings support research associating immigrant-specific stressors, such as changing norms and roles (Bui and Morash 1999; Morash et al. 2007), with a higher likelihood of IPV perpetration and victimization. In terms of physical perpetration, foreign-born men may use this form of violence as a way to reassert their masculinity in families where the structured gendered arrangements are threatened by female employment and income (Grzywacz et al. 2009; Menjivar 1999; Menjivar and Salcido 2002), or possibly by immigrant women whose employment increases their feelings of autonomy and agency (Safa 1995). The greater likelihood of victimization involving severe abuse among immigrants, as compared to natives, may perhaps also be attributed to these changes in economic status and



employment patterns and subsequent shift in familial gender roles. Distrust of government agencies or lack of knowledge regarding accessible resources may also be other factors to consider in explaining the higher rates of severe victimization. This is consistent with research citing pending legal status (Bechtold and Dziewiecka-Bokun 1999; Crenshaw 1995; MacLeod and Shin 1990; Morash et al. 2007; Raj and Silverman 2002; Salcido 2000), language barriers (Bui and Morash 1999; Garcia 1993; Goldman 1999; Jang, Lee, and Morello-Frosch 1991; Mehrotra 1999; Menjivar and Salcido 2002; Perilla et al. Norris 1994), and social isolation from significant others in countries of origin (Erez 2000; Jang, Lee, and Morello-Frosch 1991; Nayaran 1995; Raj and Silverman 2002) as obstacles to seeking assistance and factors increasing vulnerability to IPV victimization. Furthermore, perpetrators may use these barriers as tactics of control against immigrant partners and view them as avenues to perpetrate more severe abuse because they believe immigrants are more likely to tolerate the abuse rather than turn to government authorities.

While this study hypothesized that immigrant status would not be significantly associated with either bidirectional IPV type, another interesting finding was that immigrant status was related to severe bidirectional abuse. Literature has shown that intracouple conflict among immigrants may arise from frustration in the inability to meet familial financial obligations and the necessity for women's supplemental income (Grzywacz et al. 2009). This association may be captured most in bidirectional severe abuse because it may depict what Johnson (2008) describes as *situational couple violence* or *violent resistance*, both of which propose moments of high conflict that could increase the likelihood of injury (either precipitated or retaliatory). For example, in instances

where IPV is used to reinforce masculinity, it may be met by retaliation from partners, therefore leading to greater conflict and increasing the likelihood of injury. Of interest as well was that in addition to immigrant status, being Hispanic, Black or of Other racial/ethnic category was positively and significant related to severe bidirectional abuse, calling into question the possibility of a consistent minority phenomena. The significant relationship between minorities and this type of abuse suggests that cultural factors and socioeconomic conditions may not be fully captured by the variables included in this study and merit further investigation.

The findings related to immigrant status emphasize that certain immigrant factors create conditions that may both foster victimization and increase the likelihood of perpetration. While immigrants are not prone to higher rates of violence in general (Martinez and Lee 2000; Ousey and Kubrin 2009; Stowell et al. 2009), or IPV specifically (see Menjivar and Salcido 2002), the experiences of IPV within immigrant populations are often intensified simply because of the conditions they are exposed to as a result their nativity status. These findings highlight the importance of accounting for immigrant-specific stressors such as legal status, language barriers, social isolation, prejudice and cultural differences, in conjunction with the same everyday environmental-stressors that the native population also experiences (Menjivar and Salcido 2002; Perilla et al. 1994). Culture conflict and acculturation stress may act as triggers for partner-related conflict in cases where partners view IPV as an outlet for frustration resulting from resettlement or integration in American society. In addition, the opportunity for this type of violence as opposed to other types of violence may be a result of opportunity, where partners serve as easily accessible targets and interpersonal relations minimize the

risk of legal repercussions. An alternate explanation for significant findings related to immigrant status may be linked to cultural norms and experiences in the home country. Specific norms and customs practiced in the home country may normalize or give rise to adherence of IPV, which immigrants may use as frames of reference in the host country (Adames and Campbell 2005; Erez 2000). These norms may focus on male entitlement, gendered roles and arrangements, the use of violence on conflict resolution, and acceptance of the physical discipline of women.

At first glance, the most surprising findings from the study were those related to gender and IPV. Results indicated that females were less likely than males to be victims of physical IPV, and they were more likely to be perpetrators of physical IPV, participate in bidirectional IPV and be victims of severe IPV. These findings contradict all of the propositions in hypothesis three associated with physical IPV. The findings related to physical IPV provide support for literature that suggests that there is gender symmetry in IPV and that it is often bidirectional (Archer 2000; Caetano, Ramisetty-Mikler and Field 2005; Straus 1979; Straus et al. 1996; Tolan, Gorman-Smith and Henry 2006). However, the finding related to severe IPV provides support for literature asserting gender asymmetry in IPV in that it is mainly perpetrated against women (Acker 2006; Kilpatrick 2004; Tjaden 2004). When interpreting these findings, it is key to account for the definitions of IPV utilized in this study. Specifically, the physical IPV variable was constructed using basic questions from the Conflict Tactics Scales, which has been heavily criticized by feminists theorists for using a narrow definition of IPV that fails to include power and control tactics that capture a wider range of abuse primarily used by men against women (Archer 2002; Dobash and Dobash 2004; Johnson 1995; Johnson and

Ferraro 2000; O'Leary 2000; Pence and Paymar 1993; White et al. 2000). Severe IPV encompasses incidents that led to a physical injury or sexual assault. Thus, the findings of this study are consistent with research citing IPV as the leading cause of injury for women in the U.S. and asserting that women are at greater risk of IPV homicides as well as sexual abuse in intimate relationships (Carbone-Lopez, Kruttschnitt and MacMillan 2006; Catalano et al. 2009; Rice 2008).

Thus, in terms of gender symmetry, this study finds support for both sides of the debate depending upon which IPV category one is examining. Overall, this is consistent with researchers who stress the importance of context and the delineation of different IPV types in examining the role of gender in IPV (see Johnson 2011). For example, Johnson and colleagues (1995; Johnson and Ferraro 2000; Johnson and Leone 2005; Kelly and Johnson 2008; Leone, Johnson, Cohan and Lloyd 2004) explain that sampling procedures and the categorization of IPV types is key to whether results show symmetry or asymmetry in IPV. Their typology categorizes IPV in terms of subgroups of aggression, which helps address the motives and context behind perpetration. Each type delineated portrays a different motivation, such as exercising power or as a means of retaliation, and a different pattern of control. Specifically, accounting for whether IPV is used as a tool of control or as a means to settle disagreements plays a role on rates of perpetration and victimization, therefore yielding different patterns of gender symmetry. Continued reliance on the CTS and CTS2 leaves out key pieces of information, namely as to the initiation of violence and the intention of its use, and will therefore continue to spark disagreement over gendered patterns of violence between those who view it as a reliable tool and those who do not (DeKeseredy and Schwartz 1998). The conceptualization of

the IPV variables and their implications in the gender symmetry debate will be discussed in greater depth in the limitations section.

Criminological theory has historically suggested that immigrant concentration in neighborhoods encourages crime by reducing the opportunity for social control due to the negative social conditions of the areas into which immigrants move (Shaw and McKay 1969). Notably, neighborhood immigrant concentration did not increase the likelihood of IPV in this study. More recent work using a social disorganization framework has found that immigrant concentration may actually have a buffering effect on crime by enabling and strengthening ties in a neighborhood (Desmond and Kubrin 2009; Wright and Benson 2010). Contrary to hypothesis four, this study found no evidence of an “immigrant paradox” (Sampson and Bean 2006); that is, immigrant concentration in a neighborhood was not related to any physical or severe IPV type. This begs the question of why is this the case when recent research has found that concentrated immigration is a consistent negative structural predictor of IPV. One possible explanation for the current finding may be due to how the immigrant variable was conceptualized and the fact that it was not possible to account for acculturation among the young respondents answering the IPV questions. This will also be further discussed in the limitations section. However, it may perhaps be the case that there is an absence of an “immigrant paradox” in relation to IPV and its protective influence may not extend to this type of crime or operate in the same fashion as it does for other types of crime.

It may also be the case that the existence of an “immigrant paradox” is reliant upon certain conditions. The work of Wright and Benson (2010) suggests that social ties and cultural norms among immigrants buffer the effects of neighborhood disadvantage on

rates of IPV. However, one has to consider whether immigrant identity alone is enough to create cohesion among residents of a neighborhood, or whether value consensus and ties based on trust vary according to other factors. In other words, researchers must consider the false construct of a cohesive group of immigrants, or even go further and abandon the perceived sameness that panethnic terms such as Asian immigrants or Latino immigrants depict. While there are vast divisions within each immigrant subgroup according to class, length of stay in the U.S., and race, a commonality such as country of origin may provide shared cultural facts that promote solidarity among group members living in close proximity of each other. Research finding positive associations between neighborhood immigrant concentration and IPV point to low sociocultural status, acculturation stress, and the loss of social ties as a few of the significant factors to account for when considering a lack of evidence for an immigrant paradox (Gracia et al. 2014). It is possible that individual immigration-related factors have a more direct effect in stress and this type of violent behavior than neighborhood.

In terms of the tenets of social disorganization theory, in this study racial heterogeneity was the only structural factor found to be a significant predictor of IPV, specifically, severe victimization. This finding is consistent with the proposition set forth by social disorganization theory positing that racial heterogeneity in a neighborhood would decrease the likelihood of social bonding due to xenophobia, feelings of distrust, and a lack of common values (Bursik 1988; Shaw and McKay 1969; Tittle 1989). That is, racial heterogeneity may inhibit the formation of social networks or supports systems that would promote collective efficacy, which Browning (2002) found exerted informal control on the prevalence of IPV in communities with low tolerance for IPV and enabled

victims to seek assistance. The lack of a similar association with physical IPV may have to do with deterrence through informal control and severity of violence. For example, an individual might be more forthcoming in discussing threats of violence or a “hit” with a variety of people, but may consider sexual assault or acts causing injury as more serious or personal, and therefore be more selective about admitting exposure to severe IPV. Differences in severity of violence may also play a role in the identification of victimization markers by significant others in an individual’s network (networks that may be based on racial/ethnic trust). Both of these may affect rates of violence in the sense that only those types of IPV which are known and prevalent, are discouraged publicly thereby possibly decreasing neighborhood rates.

Contrary to hypothesis five (as it relates to economic disadvantage), this study did not find that neighborhoods with high levels of economic disadvantage experienced higher rates of IPV. This is inconsistent with literature that reports associations between various indicators of disadvantage and IPV (Cunradi et al. 2002; DeMaris et al. 2003; Lauritsen and Schaum 2004; Miles-Doan 1998; Van Wyk et al. 2003). However, it is consistent with Browning’s (2002) research on lethal and non-lethal IPV in which he did not find a significant relationship between economic disadvantage and IPV once all the variables were accounted for in his full model. Similar results were found in these analyses, where economic disadvantage was significantly related to all three physical IPV types when only community factors were examined, but lost significance in the full model with both individual and community factors included.

Literature shows that social disorganization theory has gained importance in IPV research by revealing contextual factors associated with this type of violence. While

studies incorporating social disorganization theory have aided understanding of the complex form of violence, investigations have been limited and the theory's hypothesized relationships (namely, concerning the three structural factors) do not consistently hold. Prior research and the findings of this study call into question the usefulness of the theory in explaining IPV. It is interesting that some individual-level measures are significant while the related community measures are not, giving support to the perspective that IPV cannot be as effectively explained by the general theories of violence (see Fagan and Browne 1994). For example, in the case of social disorganization theory, the lack of support for the significance of structural factors may be a result of the setting in which IPV takes place. It is possible that collective efficacy does not have the same effectiveness as it does with other forms of violence because those exercising social control are not physically present when the violence is occurring. This is mere speculation as the measures of collective efficacy necessary for actual testing this possibility were unavailable; however it is important for future research to examine these multilevel processes. While individual-level factors may have a direct effect on IPV, community-level factors may perhaps serve a more complementary role, where their effects are best explained as indirect or mediating. It may be appropriate to broaden the search for contextual factors that mediate or moderate the relationship between the structural factors proposed by social disorganization theory and IPV. While collective efficacy and neighborhood social ties have been examined in recent literature, neighborhood norms related to family privacy and IPV-specific norms related to male entitlement, the use of violence as conflict resolution, and acceptance of the physical



chastisement of women have been largely neglected in conjunction with social disorganization theory in IPV research.

Results pertaining to the neighborhood-level factors bring forth two other key findings of this study. First, the results demonstrate that certain neighborhood characteristics, namely racial heterogeneity, affect the prevalence or likelihood of IPV. While IPV has traditionally been thought of as a purely familial matter, these results are evidence of the role of socioenvironmental factors and support the growing body of literature that suggests that the prevalence of IPV may be at least somewhat influenced by neighborhood context (Benson et al. 2003; Benson et al. 2004; Browning 2002; Lauritsen and Schaum 2004; Lauritsen and White 2001; Miles-Doan 1998; Van Wyk et al. 2003; Wooldredge and Thistlethwaite 2003). That IPV is not purely an individual-level phenomenon, but rather that variations exist across neighborhoods suggests it cannot be entirely explained away solely by individual and couple level factors. Nonetheless, the significance of the community structural factors did not account for the effects of most individual and relational indicators of IPV and were of limited utility. Although these findings should be interpreted with caution due to the limitations that will be discussed later in the chapter, individual-level factors may play a more significant role in predicting IPV. Still, it is also important to consider the interplay between community factors and significant individual-level factors as suggested by Wright and Benson (2010), who found that structural factors affected IPV rates through individual factors such as increased stress levels and impaired social support. The use of hierarchical linear modeling, as opposed to traditional multilevel regression, may aid in uncovering the intersections between individual-level and community-level variables.

Finally, in addition to the aforementioned focal predictors, this study supports prior research. Specifically, prior research that identifies race and ethnicity (Caetano et al. 2005; Jasinski 2001; Rennison and Welchans 2000; Wyatt et al. 2000), age (Caetano, Vaeth, and Ramisetty-Mikler 2008), mental health (Caetano and Cunradi 2003; Carbone-Lopez et al. 2006; Moffitt and Caspi 1999; Fischbach and Herbert 1997), prior IPV (Coker et al. 2000; Gilbert et al. 1997; Hattendorf and Tollerud 1997; Thompson, Saltzman, and Johnson 2003), gender role attitudes (Stith et al. 2004), criminal history (Moffitt and Caspi 1999; Moffitt et al. 2000; Sorenson, Upchurch and Shen 2006), substance use (Hankin et al. 2010; Stalans and Ritchie 2008; Stuart et al. 2008; Swatt and He 2006), and relational type (Brownridge 2008, 2009; Brownridge and Halli 2002; Frias and Angel 2005; Kenney and McLanahan 2006;) as significant correlates of IPV. However, this dissertation goes a step further by determining that they are not only correlates of IPV, but also indicators of specific types of abuse, in this case, concerning directionality (victimization only, perpetration only, bidirectional) and severity (physical or severe). For example, gender roles attitudes were only significantly associated with severe IPV perpetration and severe bidirectional IPV. This suggests that adherence to patriarchal values has a greater influence on IPV that involves a sexual component to injuries and that involves heightened conflict causing injury that may require retaliation or self-defense. Thus, these findings suggest that “physical” and “severe” abuse have somewhat different predictors and are therefore different types of violence. A key finding of this study is that how IPV is defined has an influence on the importance of different level-predictors.

## **Limitations**

While this work contributes to knowledge of IPV, there are several limitations that need to be addressed. First, caution must be used when interpreting the findings of this study because the data are based on self-reports and contain missing observations, which may limit the generalizability of findings. Add Health does contain valuable longitudinal information on sociodemographic characteristics, adolescent behavior, and adult outcomes, and it is one of the few datasets that provides information on the directionality of IPV, but respondents self-report IPV. Self-reports are valuable sources of information in criminological studies because they present an alternative to official sources of crime data and address the issue of underreporting by asking respondents to reveal information regarding their own experiences with victimization and perpetration. This can be especially useful in examining IPV due to the historically private nature of this type of violence. However, there are potential issues with validity and reliability in self-reports because the accuracy of the information is dependent upon the truthfulness of the respondents, which may yield inaccurate results. Individuals may lie to strangers about the extent of their criminal involvement, may forget about specific events, or have trouble understanding the information they are being asked (Coleman and Moynihan 1996; Lauritsen 1998). Despite these potential limitations, self-report data are generally considered reliable and valid (Thornberry and Krohn 2000).

In addition, as noted in the previous chapter, this analysis used multiple-imputation techniques to account for missing responses that would have resulted in the elimination of cases as a result of listwise deletion of incomplete cases in multivariate analysis. While Wave III of the Add Health survey contained information on 14,738 of

the 20,745 original Wave I respondents, only 28.8 percent were eligible to be part of the “couples sample” who were asked the IPV-related questions that make up the dependent variables used in this study and therefore met the inclusion criteria for this study. Among respondents in the couples sample, low response rates for several variables in the analyses would have resulted in the loss of a large percentage (39.3%) of the sample and limited the number of foreign-born respondents included in the study. The lowest response rates were for prior IPV and employment status, where 25.2 percent of these respondents were missing prior IPV information and 6.6 percent were missing employment information. The use of multiple-imputation allowed for a sample size of 4,236 respondents. A comparison of the listwise deletion results and the imputed data results yielded similar results, with minor differences in the significance levels of a few predictor variables. In addition to the retention of power and representativeness potentially lost by listwise deletion (Little and Rubin 2002), research has acknowledged multiple-imputation as an appropriate and beneficial technique for handling missing data (King et al. 2001; Rubin 1987; Schafer 1997; Stuart et al. 2009).

In addition, another limitation of this study is the inability to use HLM as a result of data constraints related to sample size. Specifically, HLM requires a large sample size in terms of the number of groups and the number of cases per group (Raudenbush and Byrk 2002). The Add Health data used in this dissertation contain block groups with too few cases to provide adequate power to assess individual- and community-level effects on IPV or reliable within-tract analysis (see Wiersema 1999). While the traditional multilevel regression approach used in this study still successfully allowed for a more complete account of IPV through the simultaneous examination of individual and

community correlates, as compared to examining one level of analysis, HLM provides more advantages when working with nested data, such as its ability to distinguish between- and within- group variance and demands few assumptions (Raudenbush and Byrk 2002).

Although Add Health has many strengths, such as being nationally representative and containing information on multilevel variables, the dataset also presented limitations related to concept measurement. The most significant concerned the IPV and immigrant variables, which were key to this study. The IPV variables were constructed based on questions derived from the Conflict Tactics Scale (CTS2) (Straus, Hamby, Boney-McCoy and Sugarman 1996) that measured behaviors related to physical assault, injury, and sexual coercion. While I conceptualized IPV as two separate variables in order to distinguish severity of violence in a very basic way, they do not take into account context, meaning or motive, thereby potentially misrepresenting the characteristics of IPV among respondents. The inability to account for broader patterns of abuse and control, as well as the examination of motives and precipitating incidents, are the very criticisms feminist scholars posit create a false sense of gender symmetry in IPV (DeKeseredy and Schwartz 1998; Dobash et al. 1992; Kimmel 2002). This is best portrayed by studies using general surveys, which Johnson (2007) describes as biasedly capturing mostly *situational couple violence*- a subgroup defined as occurring between couples in conflict who use physical aggression without the context of control. However, Johnson (2007) emphasizes that what most people view as “domestic violence” and the manner in which it is portrayed in the media is actually *intimate terrorism*, which is perpetrated mainly by men against women, centers around power and control, and is

gendered violence. From this viewpoint, there is no gender symmetry in IPV (Johnson 2007). Additionally, the question “have you threatened a partner with violence, pushed or shoved him/her, or threw something at him/her that could hurt,” can include a wide range of behaviors that can range in interpretation and consequences. For example, a threat can vary in definition by respondent and the question does not take into account the context in which it was made.

In terms of the immigrant variable, the overall number of foreign-born respondents was small, and those included in the “couples sample” used in this study was even more limited. Due to sample size constraints, immigrant status was constructed using a single indicator (whether foreign-born), and did not allow for place of birth, year of arrival, or citizenship status to be taken into account despite being available in the dataset. The exclusion of these three factors is important because they affect the level and process of acculturation, which can have significant consequences in terms of social behavior (Portes and Rumbaut 2001), including participation in IPV. For example, place of birth may be an important factor to consider because immigrants often use their home countries as frames of reference (Adames and Campbell 2005; Erez 2000; Menjivar 1999). Country of origin may play a role in the acceptance or disapproval of IPV depending on cultural norms. Therefore, incidence rates may vary between groups across nationality categories, as well as within these groups depending on the level of acculturation among nationals. In terms of length of residency in the US, immigrants who arrived at an early age and are thus considered part of the 1.5 generation are socially similar to second-generation immigrants versus those of the first generation. In addition, the data did not allow for mode of incorporation to be taken into account, which is also

crucial to the acculturation process. As Portes and Rumbaut (2001) point out, immigrants differ along three important dimensions related to mode of incorporation: 1) their human capital, 2) the social environment that receives them, and 3) family structure, all of which affect their adaptation processes upon arriving in the host country.

Finally, although Add Health provides information on citizenship status, such as whether respondents had acquired U.S. citizenship by Wave III or planned to, this information is limited and was not included due to sample size constraints. Furthermore, information on whether respondents were documented or undocumented was not provided. In terms of IPV, legal status may be a crucial factor to consider due to the existing legal and political climate of the U.S. in relation to immigration control and reform. In cases where victims are reliant upon batterers for legal status, this dependence is often used as a tool of control, increasing victim vulnerability and giving batterers leverage in the maintenance of power. Therefore, laws aimed at preventing immigration fraud may serve as tactics of power and control if batterers use factors such as a victim's criminal history as a means to maintain control (Raj and Silverman 2002). Even with the implementation of legal protections for immigrant victims of IPV, lack of knowledge regarding the legal process may lead to a failure to report or seek services due to the fear created by a victim's undocumented status. This may be especially true in cases where victims' understanding of their rights, true or false, is transmitted by the batterers (Raj and Silverman 2002). The marginalized status of immigrant undocumented victims creates a power differential that serves to perpetuate and enhance the vulnerability that already plagues victims. Therefore, the construction of immigrant status as a single-item

measure may be problematic due to its inability to capture the range of factors discussed above, differentiating immigrants by origin, level of acculturation, or citizenship status.

A final limitation of this study is that it excludes other known correlates of IPV due to data constraints. For example, the assessment of social support was only possible at Wave I, prior to the IPV measurement at Wave III, and it included less than optimal questions to gauge respondents' support networks. As shown in prior research, social networks are important to consider because they may serve as a protective factor and decrease the likelihood of IPV victimization (Baumgartner 1993; Denham et al. 2007; Heise 1998; Klein and Milardo 2000; Michalski 2004; Stets 1991; Van Wyk et al. 2003). In addition, due to the dataset's inclusion of IPV-related questions to a limited number of respondents, fewer cases could be utilized in this study and several potentially important variables had to be eliminated due to an overwhelming amount of missing responses among respondents (i.e., only those in current relationships) and parents of respondents. For example, missing data resulted in the elimination of a parental conflict index, which has been linked to IPV (Bandura 1977; Lewis and Fremouw 2001).

### **Directions for Future Research**

The limitations discussed above and questions derived from the findings of this study bring forth several directions for future research. As noted earlier, Add Health is one of the few longitudinal datasets that allows for the simultaneous examination of individual and community correlates of IPV, the assessment of directionality in this type of violence, and includes information on immigration. While the dataset was the best available for this study, the primary objective of Add Health data collection was not the examination of IPV or immigrant-specific stressors. Therefore, agencies interested in IPV



should focus on collecting data so as to provide a larger and more comprehensive dataset from which to conduct in-depth IPV research, including knowledge of victims and perpetrators, as well as information on motives and precipitating incidents. This may be especially useful in obtaining more accurate accounts of directionality in IPV. It would also be beneficial to include more information on immigrants and acculturation processes to allow quantitative assessment of the role of immigrant-specific stressors on IPV.

The divergent scholarly definitions of IPV in criminological research, as well as in the Add Health data, have produced inconsistent patterns in terms of assessing the extent, severity and nature of abuse (Dasgupta 2002; Dobash and Dobash 2004; Johnson 1995). Therefore, studies should continue to develop better tools for IPV measurement in order to obtain more accurate accounts of its prevalence, incidence, and severity. Despite evidence suggesting that there is gender symmetry in IPV based on studies using the CTS, the higher rates of lethal and non-lethal IPV experienced by women depicted in UCR and NCVS, as well as the most recent National Intimate Partner and Sexual Violence Survey, cannot be ignored (Breiding et al. 2014; Catalano et al. 2009). One alternative may be to administer follow-up self-reports after interviews so that respondents may be more likely to disclose information or include supplementary open-ended and close-ended questions when using the CTS or CTS2 (DeKeseredy 2011). One example of this can be seen in the work of DeKeseredy and Kelly (1993), which included three supplementary questions before and after administering the CTS to uncover the context of violence and better gauge directionality of incidents. It may also be beneficial for future studies to use mixed-methods approaches whereby quantitative analysis can be followed-up by qualitative analysis to uncover the actual context of bidirectional

violence. This methodological approach would satisfy the desires of those who want to review empirical data before allocating funding to specific government agencies and programs and of researchers who doubt the ability of quantitative data to capture the intricacies of IPV victimization (DeKeseredy and Schwartz 1998).

While attention to neighborhood influence (inclusive of immigrant concentration) and the development of nested ecological frameworks has been rising and should continue to be a focus in IPV research, there remains a lack of research on this type of violence in immigrant communities. In a review of the literature that exists in IPV in immigrant communities, Yoshihama (2008) found that most studies suffer from methodological limitations such as aggregation of subgroups, the exclusion of non-English speakers, unequal attention to specific subgroups, disregard for sociocultural context, and limited comparability. Future research should attempt to address these limitations in data collection and in analytic strategies to obtain a more accurate account of immigrant experiences with IPV.

Future research should also continue to focus on the susceptibility of victims and perpetrators as well as the conditions specific to immigrants that may enhance their vulnerability. Specifically, while qualitative studies have identified changing gender roles (Menjivar 1999), familial solidarity (Perilla 1999), language barriers (Perilla, Bakeman and Norris 1994; Garcia 1993; Goldman 1999), persistent discrimination (Perilla et al. 1994), and dependency on men for legal status (Menjivar and Salcido 2002) as factors that enhance the susceptibility to IPV victimization, these stressors should also be examined quantitatively to assess their prevalence and significance. For example, future research should explore the effects of impaired social support as well as continue to

assess whether circumstances specific to immigrants affect their ability to acquire/develop new social support systems and consider appropriate coping mechanisms for acculturation stress. Furthermore, this study was only able to account for emotional social support. However, researchers, such as Levendosky et al. (2004), point to other forms of support (i.e. instrumental or structural) that members of certain groups may use more than others. More in-depth studies are needed to assess the utilization and importance of these other types of social support for IPV victims, perpetrators and in resolving conflict that may lead to bidirectional IPV.

Research on the most significant barriers to services encountered by immigrant victims may facilitate prioritization of needs among this population and the subsequent provision of services. Future research should also explore the perceptions of these victims regarding race/ethnicity and access to IPV resources. In terms of institutional support, as long as IPV resource agencies practice white privilege and colorblind ideology, access to these programs will not be as readily available to minority and immigrant groups as they are to native whites. The reproduction of these two racial ideologies is evident in community outreach programs that primarily target white victims of IPV, yet little has been done to change the structure of these agencies (Donnelly et al. 2005). Some scholars have called for a cultural shift, emphasizing that education alone is not sufficient, but rather rigorous training needs to take place within agencies to understand how race and culture affect individual responses to abuse and services (Latta and Goodman 2005).

### **Concluding Remarks**

This study examined the role of immigrant status and immigrant concentration in the occurrence of IPV, net of the effects of individual- and community-level

characteristics. It differs from previous research by incorporating multilevel correlates of IPV, based on previous research and social disorganization theory, in its specific focus on immigration in the examination of different forms of IPV. In addition, it assessed whether the Add Health data exhibited any evidence of gender symmetry in IPV.

Four key findings were uncovered. First, there are certain immigrant factors that create conditions that foster victimization and increase the likelihood of IPV perpetration. While it has been established that the image of the criminal-prone immigrant is a myth (Butcher and Piehl 2008; Lynch and Simon 2002; Martinez 2002; Martinez and Lee 2000; Martinez and Valenzuela 2005; Rumbaut, 2005; Rumbaut and Ewing 2007), this study suggests that something about the immigrant experience affects social behavior, specifically here as it relates to their involvement in IPV. This identifies a need for the continued examination of immigrant-specific stressors that may alter family dynamics and promote conflict.

Second, certain neighborhood characteristics significantly affect the prevalence or likelihood of IPV. Therefore, IPV is not purely an individual-level phenomenon, but rather variations exist among neighborhoods which suggest that IPV cannot be entirely explained away by individual and couple level factors. In fact, a third key finding is that community structural factors did not explain away the effects of most individual and relational indicators of IPV in this study, thus suggesting that individual-level factors are robust predictors of this type of violence. These two findings highlight the importance of multilevel level studies in the examination of IPV and emphasize the interplay between individual characteristics and socioenvironmental context.

Finally, physical and severe abuse were each predicted by different individual, couple, and neighborhood level factors and therefore should potentially be considered different types of violence. In addition, the two abuse types suggested contradictory conclusions in terms of the existence of gender symmetry in IPV. This finding in particular encapsulates the gender symmetry debate and reaffirms the assertion that how IPV is defined influences the importance of different level predictors, as well as directionality. Recent research supports the differentiation of IPV types not only from an academic and theoretical standpoint, but also from a policy perspective as well, as it may aid in the identification of more appropriate judgments in terms of service provisions, treatment plans and legal sanctions (Kelly and Johnson 2008).

Despite the limitations of this study, it is an important step in attempting to disentangle differences among native and immigrant populations in the risk of IPV. Future research in the aforementioned areas is critical to our understanding of IPV, the susceptibility of victims, and conditions specific to immigrants that may enhance their vulnerability. The importance of research in these areas can be directly linked to public policy reform and the provision of services. The 1994 Violence Against Women Act (VAWA) was seminal in recognizing the persistence of domestic violence and addressing law enforcement responses, or the historical lack thereof. After a yearlong legislative battle in 2012 due to opposition in extending protections to same-sex couples and undocumented women, President Obama signed the VAWA Reauthorization Act of 2013 which includes protection to undocumented female victims of abuse. VAWA funding has primarily been filtered into law enforcement agencies, resulting in increased prosecution rates and state adoptions of mandatory arrest policies (Pickert 2013).

Feminist scholars have criticized the amount of funding provided toward law enforcement because mandatory arrest policies and prosecution of perpetrators without the cooperation of victims can unintentionally lead to revictimization and state control of marginalized women (Coker 2001). In addition, it is clear that at times seeking the help of law enforcement is not enough when other barriers exist. A recent news article told the story of Deisy Garcia, a 21-year-old Guatemalan immigrant and mother of two living in New York, who filed a domestic abuse report with the NYPD stating that she feared her ex-husband would kill her and their daughters (Boyette and Santana 2014). Eight months later, Deisy Garcia and her children were stabbed to death. An investigation revealed that her police report was never further reviewed because of a language barrier - it was filed in Spanish and never translated into English. Although this is just one example, it clearly highlights the need for funding to be redirected toward addressing the predictors of IPV found in studies such as this one, which would provide victims with services they are able to use toward their own empowerment. The emphasis and subsequent reliance on crime control shifts the focus away from IPV prevention that may provide more effective solutions (Coker 2001).

In addition to providing findings that can help guide public policy reform for IPV victims in general, research identifying predictors that differentiate types and directionality of IPV and determine if there are differences among the native and immigrant populations, can lead to the implementation of more appropriate intervention strategies and services. This may provide an impetus for the action at the policy level for which feminists advocate. However, in terms of effectiveness it is critical for intersectionality- specifically the social, cultural and political forces that cause IPV- to be

taken into account in the establishment of programs for victims, the treatment of perpetrators, and how the criminal justice system handles accountability (McPhail et al. 2007).

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APPENDIX A

<b>Variable Name:</b>	<b>Level</b>	<b>Wave Collected:</b>
<i>Physical IPV</i>	Individual	III
<i>Severe IPV</i>	Individual	III
<i>Immigrants Status</i>	Individual	I
<i>Gender</i>	Individual	I
<i>Race/Ethnicity</i>	Individual	I
<i>Age</i>	Individual	III
<i>Educational Attainment</i>	Individual	III
<i>Employment Status</i>	Individual	III
<i>Personal Income</i>	Individual	III
<i>Household</i>	Individual	III
<i>Mental Health</i>	Individual	III
<i>History of Delinquency</i>	Individual	I
<i>Mental Health</i>	Individual	I
<i>Social Support</i>	Individual	I
<i>History of IPV Victimization</i>	Individual	II
<i>Gender Role Attitudes</i>	Individual	III
<i>Criminal History</i>	Individual	III
<i>Alcohol Use</i>	Individual	III
<i>Drug Use</i>	Individual	III
<i>Relationship Type</i>	Individual	III
<i>Immigrant Concentration</i>	Contextual	III
<i>Economic Disadvantage</i>	Contextual	III
<i>Residential Instability</i>	Contextual	III
<i>Racial Heterogeneity</i>	Contextual	III