CONTEXTUALIZED PATHWAYS TOWARDS WOMEN'S USE OF VIOLENCE:
A MIXED-METHODS INVESTIGATION

BY

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DISSERTATION

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ABSTRACT

Although women engage in violence less frequently than men, an emerging body of research has documented the potentially devastating effects of women's violence for individuals, families, and society. Research also suggests that women's pathways to violence, particularly in terms of etiology, are characteristically different than that of men. However, empirically supported models of violence developed specifically for women are largely lacking. This study will examine models that are most relevant for explaining women's violence, and span literatures and levels of analysis, including genetic, environmental, and socio-structural factors. Toward this end, a mixed methods design was employed and included a quantitative component to generate multivariate path models examining gene-environment interplay and environmental intervening variables of violence in women and men (Phase I), and a qualitative component with a subset of women aimed at exploring socio-structural factors influencing women's violence (Phase II). In juxtaposition, these two components were leveraged toward delineating a pathway that includes both individual difference factors that explain variability in use of violence as well as socio-structural factors that place individual women's violent acts in a broader social context. Findings supported both convergence and divergence across methods. Specifically, the quantitative component supported a female-specific path, with trauma and substance use intervening between GxE effects and violence. Female-specificity was largely supported by qualitative interviews with a subset of 20 women. Qualitative interviews also extend quantitative findings by informing the sequence of risky experiences in women's lives and implicating the importance of gender-salient experiences, particularly intimate partner violence and sex work. Interviews also suggested that women's subjugated roles in interpersonal and social contexts promote their use of violence and suggest the relevance of gender at the socio-structural level.

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CHAPTER 1

INTRODUCTION

**Overview**

The study of violence has traditionally focused on men, as men are more likely to engage in antisocial behavior and violence and are overrepresented in the criminal justice system (Hartung & Widiger, 1998; Rutherford, Alterman, Cacciola, & Snider, 1995). Increasingly, there have been calls to better understand the multiple factors that contribute to women's engagement in violence (e.g., Brown, Chesney-Lind, & Stein, 2007), especially as arrest rates for women and girls have recently peaked to their highest levels according to national and international reports, while they have remained stable for men and boys (Chesney-Lind & Pasko, 2004; FBI, 2007; Snyder & Sickmund, 2006). Despite the challenges in interpreting arrest rates (e.g., Lynch & Jarvis, 2008), the rise in women's crime has stimulated both scholarly and popular discourse on the topic. This discourse has been overwhelmingly dominated by explanations that in many ways fall short of honoring the complexity of the phenomenon they attempt explain. In particular, dominant conceptualizations are focused on extrapolating theories of men's violence to women's lives, such as those examining social controls (e.g., neighborhood organization; Sampson & Groves, 1989; Sampson, Raudenbush, & Earls, 1997); Or, existing models provide overly-simplistic gender-specific explanations, such as that women are becoming more violent because they are becoming more like men since the women's liberation movement (e.g., more assertive, more masculine; e.g., Adler, 1975).

An emerging body of empirical work from a number of disciplines has developed toward the explanation of the same social phenomenon – women's use of violence – though different disciplines have advanced divergent perspectives. Specifically, a prominent area of psychology

examines gender differences in the factors explaining violence by comparing the ways in which women's risk for violence differs from those of males (e.g., Moffitt et al., 2001; Rhee & Waldman, 2002). In service of this goal, primarily quantitative methodologies have been employed to extract the risk factors associated with women's violence, often investigating the ways in which an individual's gender may statistically moderate the relationship between risk factors and violence. For instance, studies have found that the association between childhood abuse and antisocial outcomes is stronger for girls than boys (i.e., gender moderates the link between abuse and antisocial behavior; e.g., MacMillan et al., 2001), while the association between parenting style and antisocial behavior is not (i.e., gender does not moderate the link between parenting and antisocial behavior; e.g., Rothbaum & Weisz, 1994). Though this research investigates important aspects of women's context (e.g., parenting), the assumption here, whether stated or implied, is that gender is relevant in predicting violence with respect to childhood abuse but is largely irrelevant with respect to parenting style. This is consistent with an investigation of gender as an individual attribute that is relevant when significant differences emerge.

An alternative perspective driven by ecological and feminist stances within the fields of sociology and criminology situates women's violence in a broader ecological context organized by gender norms. This perspective has sought to conceptualize women's violence by focusing on social norms and power differentials that systematically accord fewer opportunities for an entire population of women and girls, and centralizes the ways in which social hierarchies stemming from oppression have resulted in the domination and victimization of women. Women's violence is thought to emerge within this hierarchical context and is thus conceived as being characteristically different than the violence enacted by men, particularly with respect to

understanding the social meanings and purposes of women's violence. For instance, a prominent feminist criminological theory suggests that women and girls' engagement in violence often emerges (directly or indirectly) by an attempt to escape future victimization (Chesney-Lind & Pasko, 2004: Chesney-Lind & Shelden, 2004). Ethnographic accounts of urban teen dating violence provide further complexity. They suggest that women's perpetration of violence against their male partners emerges through gender norms prescribing a sexual double-bind that promotes boys' infidelity and emotional detachment, while they simultaneously promote girls' commitment and emotional investment (Miller, 2008). The assumption here is that gender is largely relevant, regardless of individual differences on the risk factors associated with violence perpetration. This is consistent with an investigation of gender as a variable that organizes the social structure and is relevant for all women and girls because of their less powerful status in society.

One important reason for a lack of integration (or a main barrier to it) across these literatures may result from the different conceptualizations of gender they advance. Classical and recent theorizing on gender provides a valuable way to frame and perhaps integrate how literatures conceptualize and operationalize gender (Anderson, 2005; Lorber, 1994; Stacey & Thorne, 1985; Wasco & Bond, 2009).

One particularly relevant model advanced by Anderson (2005) suggests that gender is (at least) both an internal attribute of the individual as well as a category of social organization. At one level, gender is an individual difference variable, and gender differences in the effects of risk factors on violence can be attributed to internal characteristics of the person. This conceptualization also captures the typical use of gender as a grouping variable in psychological studies, similar to how one would classify individuals into biological or social groupings (e.g.,

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blood type AB vs. O). Thus, if differences between men and women do not emerge, gender is seen as largely irrelevant. In contrast, a second view conceptualizes gender as not only a characteristic of individuals but also a socio-structural variable that organizes the proximal and distal environments of individuals, and because of the historical marginalization of women and girls, accords systematically less power and opportunity across all women (i.e., contributes to women's oppression). This conceptualization focuses on the social meanings attached to biological sex and contends that, "gender is a system of stratification that places women and men into unequal categories, roles, and occupations" (Anderson, 2005; pg. 858). Thus, gender manifests in the form of gender-related norms and power dynamics, which are inextricably embedded in social contexts and operate partly independently of individual differences.

An overall goal of the present study is to examine and integrate conceptualizations of gender in a single, mixed methods study that incorporates an analysis of the influence of genes, specific environments, as well as socio-structural forces across two phases using a relatively large ($N = 477$) sample of individuals with a history of antisocial behavior. Specifically, the first aim of this study is to identify female-specific risk factors by examining differences in women and men's pathways to violence; an aim most consistent with treating gender as an individual level attribute. Toward this aim, in Phase I of the study, quantitative data will inform path analyses examining genetic contributions and environmental moderators and processes that are theoretically relevant for female pathways toward violence. This phase investigates the extent to which particular factors are differentially related to the promotion of women's violence but also extends research in this area by examining a more holistic model including gene-environment interplay (G-E) and potential environments that are influenced by G-E effects.

The second aim is to elucidate the broader socio-structural context within which women's violence emerges and may be maintained through use of qualitative methodology; an aim most consistent with examining gender as a socio-structural variable. Toward this aim, in Phase II, qualitative interviews will be conducted with a subset ($N = 20$) of women from the original sample in an effort to situate women's acts of violence in a broader social context and elaborate on the ways in which women's violence emerges within a social structure organized by gender. Efforts will be made to contextualize, enrich, and extend the path modeling from Phase I by focusing on how gender might matter as a variable that organizes women's interpersonal and social opportunity structures and environments. This phase privileges the meanings associated with women's violence. In juxtaposition, these two components may inform a pathway with sufficient explanatory power for women's violence, including both individual difference factors that explain variability in use of violence as well as socio-structural factors that place individual women's violent acts in a broader socio-structural context. The use of multiple methodological approaches supports the overall aim of this study by leveraging approaches best suited to each aspect of the inquiry.

**Examining Violence**

The focus of this study will be on engagement in violent acts in particular, conceptualized here as physical acts or assaults against other individuals. According to this definition, acts such as destruction of property and verbal fighting are not included as part of the nomological net of violence. However, because of the nature of different methods and purposes in Phase I and II, the conceptualizations of violence within each phase differ slightly. In particular, Phase I utilizes a decontextualized definition of violence that privileges frequency of engagement in violent acts instead of the severity or meaning attached to these acts. According to this definition, minor and

major acts of violence and the nature of violence perpetration (e.g., whether the participant instigated the violence, toward whom it was directed) are not distinguished. This decontextualization of violence represents a shortcoming in the some, but not all, extant studies on women's use of violence. The present study also uses a decontextualized measure of violence because the quantitative measure used relies on quantifying, rather than describing the nature of, violent acts. Phase II attempts to address this shortcoming by anchoring the understanding of women's violent acts in the context of their lives in an effort to deliberately elucidate their meanings and the purposes they serve. Interviewing women about their use of violence will not only help to better describe the nature of their violence (e.g., in terms of severity, to whom it was directed), but will also detail the antecedents and social costs and meanings associated with women's use of violence.

**Contributions of the Present Study**

Each phase of the study, separately and in tandem, has the potential to offer several notable contributions to the extant literature on women's use of violence. First, quantitative modeling employed in Phase I extends the current psychological literature by examining the interplay of several key risk factors demonstrated to be important for gender specific conceptualizations of violence in the context of a holistic pathway model. Further, qualitative inquiry in Phase II examines women's use of violence in the context of women's lives and with a criticalist lens geared toward uncovering socio-structural inequity within women's narrative accounts. This second phase helps contextualize women's violence by situating individual acts of violence in a social context characterized by gender-based inequity and focuses on the social meaning of women's violence. The integration of both study phases creates an opportunity to

understand the complexity of women's violence and helps avoid the pitfalls that accompany each approach in isolation.

## Literature Review

**Gender at the Individual Level: Female-specific Factors in Women's Paths to Violence**

A number of research studies have identified a wide range of risk factors associated with violence across both genders, including low socioeconomic status and housing instability (Anderson, 2006; Bloor, 2006; Fergusson et al., 2008; Keyes & Hasin, 2008). While these factors have been consistently linked with violence, Phase I of the study will examine the extent to which risk factors that are theoretically-relevant for women explain women's use of violence. A focus will be placed on key risk factors in the psychological literature, including specific genes, childhood victimization, engagement in status offenses, adulthood traumatic experiences, and substance use. Based on the theoretical framework of gender described above, the variables identified in Phase I are conceptualized as informing the potential influence of gender at the individual level (Anderson, 2005). Importantly, the psychological literature has examined several contextual factors, including peer, parenting, and neighborhood contexts and in relation to both men and women's violence. With regard to gender, several scholars have noted the importance of gender as a context factor shaping antisocial behavior, for instance, in relation to empathic development and gender-based socialization (e.g., Dietz, 1998; Miller, 1988; Maccoby, 1986; Moffitt, 2006; Rutter et al., 1998). However, interpretations regarding *gender* are thought to remain at the individual level, even when examining these "outside the person" factors.

Risk factors to examine in Phase I were selected from an emergent developmental model of female antisocial behavior and justice system involvement described in two recent reviews (Javdani, Sadeh, & Verona, 2011a; 2011b). The proposed model, reproduced in Appendix A,

includes factors that are evidenced to influence violence for both men and women (i.e., "gender common") and factors thought to be more influential for women (i.e., "female specific"). As elaborated below, several risk factors were selected in the present study based on this model, especially those that were most relevant for women, and provide an opportunity to examine a subset of the model holistically.

This phase of the study aims to extend the extant literature on female violence, including through 1) examination of gender differences in G-E interplay (interactions and/or correlations) effects on violence outcomes, which represent questions that have not been subject to adequate empirical testing to date (Javdani et al., 2011b); 2) investigation of candidate environments that are hypothesized to be particularly relevant for women's violence as potential links between G-E and violence; and 3) development of a holistic model of female violence that examines numerous risk factors in tandem and investigates the interrelationships among factors. Though some of these pathways are relevant to both genders, certain paths are expected to be significantly stronger for women than men, as described below.

*Specific Genes and Gene-Environment Interplay.* A substantial body of work has shown that antisocial behavior is heritable, and that both males and females inherit fairly equal genetic liability for antisocial behavior (estimated to be about 20%, McGue et al., 2006; see Rhee & Waldman, 2002 for a meta-analytic review). This work underscores the importance of uncovering genetic mechanisms that confer risk for violence, and of investigating the extent to which such mechanisms explain the use of violence for both men and women. While evidence has emerged indicating that specific genotypes are related to antisocial behavior (e.g., Caspi et al., 2002), few molecular genetic studies have directly compared men and women in the context of the same study. These studies also suggest inconsistent findings and represent an emerging

area of research (for a discussion of extant controversies, see Risch et al., 2009). This is an important area for research, as biological sex differences have the potential to influence specific forms of gene expression and transcription throughout the lifespan (Sjoberg et al., 2008). Notably, some emerging research across human and animal studies raises the possibility that gender differences exist in the genes that influence antisocial behavior, including in relation to MAO-A[1] (Monoamine oxidase; e.g., Foley et al., 2004) and 5-HTT-LPR (Serotonin transporter gene; e.g., Verona et al., 2006). Across the genders, these genes have been directly linked to impulsivity (e.g., Lesch, 2001), which is theorized to play an important role in violence perpetration, but examination of gender differences has been limited to a few studies or only one genotype at a time.

In terms of gender differences, some studies suggest that the combined effects of specific genes and childhood victimization may accord risk for violence differentially across the genders. For instance, although victimized boys with the MAO-A short allele are at increased risk for antisocial behavior (Widom & Brzustowics, 2006), recent investigations with adolescent girls and adult women find that the effects of the MAO-A *long* allele combine with the effects of victimization to place young women at risk for engagement in violence (including one prospective study; Gokturk et al., 2008; Kinnally et al., 2009; Nilsson et al., 2007; Prom-Wormley et al., 2008; Sjoberg et al., 2007). In contrast, other studies support the influence of the MAO-A short allele, as has been found for boys (Caspi et al., 2002; Ducci et al., 2008). To date, only one investigation has compared the genders within the same study and finds a similar G-E interaction associated with antisocial behavior; namely, that victimized boys and girls with the

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[1] Of note, females have double the influence of the MAO-A gene relative males, because it is linked to the X chromosome.

MAO-A low activity allele are at greatest relative risk (Widom & Brzustowica, 2006). Thus, findings are inconsistent and in need of further replication.

Other studies have found that genetic liability is associated with aggression and externalizing tendencies more directly for men than women. For instance, one study found evidence of transmission (assumed to be genetic in part) of parental externalizing behaviors to their offspring; however, experiences of abuse accounted for this relationship in female but not male offspring (Verona & Sachs-Ericsson, 2005). Similarly, other studies find that genetic risk for externalizing behaviors is transmitted to girls indirectly via other environmental factors, such as father absence (Comings, Muhleman, Johnson, & MacMurray, 2002), residing in an urban context (Obeidallah et al., 2004), and attendance at mixed-sex schools (Caspi, Lynam, Moffitt, & Lynam, 1993). These studies support the notion that genetic factors may affect women's engagement in violence less directly than for men, and their effects are potentially mediated or moderated via salient childhood environments. However, as with gxe studies in relation to MAO-A, findings are inconsistent and in need of replication.

*Childhood Victimization.* Childhood victimization is one such salient candidate environment with particular relevance for violent outcomes in women. Perhaps one of the most oft-investigated factors in relation to women's antisocial behavior, childhood victimization is included as a key construct in theoretical and empirical literatures on female violence. Across disciplines, researchers find that a majority of girls engaged in antisocial behavior report histories of childhood victimization, including physical, sexual, and emotional abuse (e.g., Acoca, 1999; Haynie, 2003; Mullis, Cornille, Mullis, & Huber, 2004), and that incarcerated women report significantly higher rates of past abuse, particularly sexual abuse, relative to incarcerated men (e.g., McClellan, Farabee, & Crouch, 1997).

While these studies provide some evidence in support of abuse as an important factor, particularly compelling evidence comes from longitudinal work that links victimization history with future violent offending for girls, a finding that does not emerge for victimized boys who were followed into adulthood (Widom, 1989). A more recent prospective study investigated the 20-year outcomes of over 400 girls who were sexually assaulted in childhood and found that early sexual abuse predicted higher levels of both juvenile and adult offending (including violence), than was observed for age, race, and gender matched controls (Siegel & Williams, 2003). Thus, although a history of abuse is likely to impact both genders, childhood abuse is expected to be a stronger correlate to violence in women than men.

*Adolescent Conduct Problems: Aggression.* Another important experience representing antecedents of engagement in adult violence is that of conduct and disciplinary problems that arise in childhood and adolescence. Research suggests that conduct problems in general seem similarly relevant to both male and female trajectories toward adult violence. For instance, multiple studies have established a link between early conduct problems and development of later antisocial behaviors, including violence and aggression (see Loeber et al., 2000, for a review). The most compelling evidence for this comes from prospective studies documenting that early conduct problems predict the development of aggression for both boys and girls (e.g., Moffitt et al., 2001). Such conduct problems displayed by youth include tendencies to aggress against people and/or animals (e.g., bullying others, physical fighting), destruction of property (e.g., vandalism), deceitfulness (lying, manipulation) and theft. In essence, the link between conduct problems and later antisocial behavior is in keeping with the notion that certain aggressive tendencies are enduring and develop across the lifespan (e.g., Loeber, 1991). Although the majority of studies in this area have been conducted with boys (e.g., see Hoyt &

Scherer, 1998), substantial evidence suggests that early conduct problems also predict later

violence in girls and women (Broidy et al., 2003; Moffitt, 1993). However, researchers have

touted the importance of particular types of conduct problems, captured by the legal term of

status offenses, and suggest that this subset of behaviors is *most* relevant for girls' later violence.

*Adolescent Conduct Problems: Status Offenses.* Status offenses constitute behaviors for

which youth, but not adults, can be arrested and include running away, truancy, and curfew

violations (these behaviors also correspond to the "serious rule violations" items on the

Diagnostic and Statistical Manual's classification of Conduct Disorder; APA, 2000). Researchers

argue that status offenses are a particularly important category with respect to women's

antisocial trajectories, because they are common offenses for girls that may have gender-specific

motivations, such as escape from, or coping with, victimization (e.g., Acoca, 1998; Chesney-

Lind & Shelden, 2004; Girshick, 1999). Indeed, a large proportion of arrests for these offenses

involve girls – including for "running away" from home, which is one of the only behaviors for

which girls are consistently arrested more than are boys (Snyder & Sickmund, 2006; FBI, 2007).

Girls' potential motivations for committing status offenses are also illuminating. Qualitative

studies have suggested that girls' status offenses are more likely to reflect a response to

victimization (e.g., running away from home due to abuse) and expose girls to other risky

contexts, such as interpersonally violent environments (including partner violence and sex work;

e.g., Acoca, 1999; Chesney-Lind & Pasko, 2004; Javdani et al., 2011a; 2011b). These volatile

interpersonal contexts may be a key ingredient in the development and maintenance of women's

violence and contribute to female-relevant acts of aggression (women's violence against partners

and children). In this way, status offenses mark a critical point in female-specific pathways in

that they expose girls to risky environments within which their own violence is most likely to

manifest (Chesney-Lind & Shelden, 2004; Javdani et al., 2011b). To date, though multiple theorists have espoused the importance of status offenses (e.g., Chesney-Lind & Pasko, 2004; Chesney-Lind & Shelden, 2004), little empirical work has been done examining the processes by which engagement in these behaviors promotes later violence.

One hypothesis of the present study is that risk conferred by specific genes related to impulsive tendencies can combine with the effects of early childhood victimization to give rise to status offending behaviors, particularly in women. The impulsivity promoted by genetic risk, in combination with an adverse home environment, can accord the key ingredients to propel girls to engage in behaviors such as running away, spending increased time unsupervised and away from home (e.g., violating curfew), and disengaging from school (e.g., truancy). Thus, G-E effects may be salient in female pathways indirectly through their impact on status offenses. In turn, commission of status offenses may introduce a host of other risk by exposing girls to other traumatic events and to deviance.

*Adulthood Traumatic Events.* An important relationship may also exist between trauma and women's use of violence. Most studies have confirmed that women who engage in antisocial behaviors experience higher rates of psychological distress as adults, including trauma, compared to matched community women (e.g., Jordan, Schlenger, Fairbank, & Cadell, 1996) and incarcerated men (Teplin, Abram, McClelland, Dulcan, & Mericle, 2002). In particular, aggressive women are more likely to experience traumatic events and have psychological profiles consistent with Post Traumatic Stress Disorder (PTSD) as compared with aggressive men (Cauffman, Feldman, Waterman, & Steiner, 1998), and women evidence a stronger association between experiencing trauma and subsequent psychological distress, including externalizing psychopathology, compared to men (Campbell et al., 2008; Evans, Davies, &

DiLillo, 2008). Traumatic experiences, including those related to adulthood sexual and physical assault distinguish women with antisocial behaviors from their male counterparts (Chamberlain & Moore, 2002). Though this research remains at the descriptive level, results suggest that traumatic experiences are important points preceding women's engagement in violence.

A hypothesis advanced in this study is that status offenses expose girls to traumatic events in adolescence and adulthood, such as sexual and physical assault. In turn, these traumatic events may introduce a host of negative coping strategies that are associated with women's use of violence (Lewis, Cloninger, & Pais, 1983).

*Substance Use.* Though substance use is considered an antecedent of aggression and violence for men and women (e.g., Connor et al., 2003; Lewis et al., 1983), there is a strong association between use of substances and engagement in violence for women, with studies estimating that six out of ten incarcerated women with violent histories report engaging in substance use in the month before their offence (Greenfeld & Snell, 1999). Despite the fact that substance use is associated with violence among men and women, some interesting links and motivations have been advanced with respect to women's substance use. In particular, one theory that has garnered much attention advances that substance use is an important coping mechanism used by women who have experienced trauma (Katz, 2000; Kendler et al., 2000; Kilpatrick et al., 1997). Some notable gender differences include the stronger prospective link between victimization and drug use severity in women as compared to men (McClellan, Farabee, & Couch, 1997; Widom et al., 2006), as well as the finding that there is a stronger link between the experience of trauma and the development of subsequent psychological distress for women as compared to men (Campbell, Greeson, Bybee, & Raja, 2008; Evans, Davies, & DiLillo, 2008), suggesting a potential decline in women's positive coping strategies in response to trauma.

Further, the nature of traumatic events are particularly female relevant in that experiences of partner violence and sexual assault are associated with higher levels of drug use prospectively, which in turn leads to higher levels of perpetrated violence by women, moreso than men (Hyman, Garcia, & Sinha, 2006; Kilpatrick et al., 1997; Walitzer & Dearing, 2006). Thus, the experience of physical and sexual traumas seems particularly relevant in terms of women's substance use and, in turn, their engagement in violence.

In combination, these data suggest that women's substance use may indeed be more likely to be instigated by victimization and distress compared to that of men's substance use, although the existing evidence is not yet conclusive. Thus, while men may follow a more direct path to the onset and development of substance use, or one that is mediated by environments not studied in the present model, these behaviors are more likely associated with violence through the experience of victimization and exposure to traumatic environments among women.

**Summary and Path models**

This study sought to extend an understanding of women's engagement in violence by incorporating each of the reviewed factors in tandem within a pathway model. Figure 1 displays the proposed path model under investigation. As depicted, a primary distinction between the proposed female-specific (red arrows) and gender-common (gray arrows) pathways is that female-specific pathways are less directly linked to violence via the particular environments under investigation here (which were chosen because of their theoretical and/or empirical relevance for women). It is proposed that women's engagement in violence arises largely via the interplay between genetic risk and early childhood victimization experiences, which are then linked with status offending behaviors marked by rule violations (i.e., status offenses such as running away and truancy). In turn, status offenses place women at risk through helping expose

them to traumatic experiences, such as physical and sexual assault in emerging adulthood. One important response to these traumatic experiences, in turn, may be engagement in substance use as a strategy to cope with psychological distress. Together, these factors may provide the key precursors to women's engagement in violence. As such, these factors are hypothesized to link G-E effects to violence especially in women, in contrast to a hypothesized more direct link between genetic risk and early conduct problems to men's violence in adulthood. To be clear, these paths are not conceived as being irrelevant for men. Rather, it is argued that direct paths will likely not provide sufficient explanatory power for explaining women's violence in the context of a model that accounts for these female-specific intervening variables. Investigation of these questions provides much-needed empirical evidence for the genetic and environmental factors that give rise to women's violence.

Multiple important aspects of this path model are noted. First, this model allowed for investigation of novel gene by environment interplay. These relationships were important to examine in light of evidence that gene-environment interactions may accord risk for antisocial behavior in gender-specific ways (e.g., Burt et al., 2006; Verona et al., 2006). Second, important developmental experiences were examined, including youth conduct problems (fighting, deceitfulness) and status offending behaviors (running away, truancy). This allowed for direct investigation of perceived early experiences and behaviors relevant to the development and maintenance of aggression and violence (though these early experiences are assessed with cross-sectional data via retrospective reports). Finally, this model allowed for an understanding of the relative contribution of each factor in the context of the other factors included in path analyses.

**Need for Multi-level Conceptualizations: Gender at the Socio-Structural Level**

In addition to it's treatment primarily as an internal attribute, gender can also be characterized as an ecological/socio-structural variable that serves to organize the social structure through gender norms and power-laden dynamics that can create the circumstances under which women's violence emerges (or does not) and shape the form that women's violence takes (Anderson, 2005). Indeed, gender is not the only analytic category to which a socio-structural lens can be applied and scholars have noted the limitations of not applying the same lens to other socio-structural categories such as race (McCall, 2005). In the current study, gender is a key construct of interest and an ecological analysis is used to extend an understanding of women's violence beyond individual differences by examining how gender organizes social relationships and opportunity structures. This analysis focuses on how women's lower social status matters in relation to understanding the social significance and meanings behind their acts of violence.

Anderson's (2005) theory paper describing different conceptualizations of gender has served as a call to better understand the ways in which gender may organize social institutions, identities, and the nature of social interactions. The second phase of this study aims to respond to this call. It is important to underscore, however, that though these conceptualizations of gender are receiving increased attention in the literature, there is still limited empirical work on the ways in which gender at the socio-structural level influences women's use of violence. This next section reviews notable exemplars that have described the ways in which women and girls' violent acts are situated in a gendered social structure, serve a particular purpose within that structure, and can be interpreted with attention to social status and power.

*Conceptualizing Acts of Violence as Socially Situated: The Role of Gender in Organizing Interpersonal Relationships.* Some recent work has focused on how gender serves to organize the

interpersonal context, and on the ways in which women's subjugated roles within interpersonal

relationships can create a set of circumstances that fosters women's use of violence. Miller's

(2008) ethnographic study of young men and women describes such dynamics well. Her study

examines the context of dating relationships in urban neighborhoods and, through studying

young men and women's social interactions and applying a socio-structural interpretive

framework to them, Miller identifies global patterns of girls' violent acts as they emerge within

their relationships. Specifically, Miller identifies a pattern whereby girls use violence against

their partners in response to their partner's actual or potential infidelity. She calls this dynamic

part of the "playa (player) ethos", which involves a discourse around the sexual objectification

and conquest of women and grants males social status by virtue of the number and nature of

sexual partnerships they acquire. At the same time that boys gain status for these relationships,

however, girls lose status as their behavior is subject to a sexual double standard that sanctions

unconstrained sexuality. In Miller's analysis, boys' gain (in status) is girls' loss (of her partners'

fidelity) and a reminder that girls do not have the same social freedom with which to navigate

and negotiate their relationships.

Miller identifies a second gender norm that is both related to the playa ethos and is an

important aspect of the social fabric that promotes girls' violence. Termed the "cool pose", this

norm devalues committed relationships in boys and is exemplified by the mask of emotional

detachment and aloofness that boys may display toward their dating partners in response to their

requests for loyalty or commitment. A gendered dynamic emerges as girls confront partners

about their commitment or potential infidelity (fueled by the playa ethos), often with a

motivation to seek reassurance about boys' attachment to them, and are met with a "cool pose"

that provides them the opposite of what girls are often seeking (i.e., conveys detachment when

girls' report that they are seeking attachment). Thus, girls' violence toward their partners in response to the cool pose serves a particular social purpose and conveys particular social meanings for girls and their partners. One young woman's story exemplifies these dynamics well. After receiving confirmation that her boyfriend was cheating on her with a girl from school, she "tries to fight" her boyfriend until she gets a reaction from him (Miller, pg. 175):

> I got this [pointing to her black eye] 'cause … when I came to school, this girl tellin' me that my boyfriend be comin' over to they house, this, this, this, and that. So me bein' stupid, …went home tryin to fight him. He blockin' the punches or whatever like, G'o'n get off of me, go'n stop, stop." He kept on tellin' me to stop, stop, go'n, go'n. So I'm steady hittin' him. I had on some sandals, I'm hittin' him with the sandals. I run outside, I'm hittin' him, I'm hittin' his car or whatever and so he said something to me as he was closin' his door and I punched him in his eye and he pushed the car up in park, he got out the car and smacked me and got back in the car and left.

As this example may illustrate, this treatment of gender as a contextual reality is distinct from its treatment as an individual level attribute. First, gender is seen as a characteristic of the context and is viewed as powerful regardless of the extent to which a given individual identifies as 'gendered' (e.g., masculine, feminine). Second, girls' use of violence is thought to emerge not only because, for instance, male infidelity is a 'risk factor' for young women's use of violence; rather, male infidelity is viewed as a product of a social structure that is characterized by the marginalization of women and girls (and their expressed desires and needs). Thus, girls' use of violence in this context has less to do with characteristics of the girls and much to do with the social power they inherit within the interpersonal space, the purposes their violent acts serve, and the antecedents that give their violence social meaning. Finally, this contextual understanding of gender is necessarily dynamic, as girls' social roles, identities, and violent acts intersect with and are defined relative to those of boys, and shift and evolve as girls navigate different social contexts. Phase II of this study will examine women's use of violence within interpersonal relationships with attention to the ways in which gender may operate at the socio-structural level.

*Conceptualizing Acts of Violence as Socially Situated: The Role of Gender in Organizing Opportunity Structures.* In addition to organizing interpersonal relationships, gender as an aspect of the social context also organizes women and girls' opportunity structures more globally. That is, women's acts of violence are socially situated, specifically as they occur in response to the demands and opportunities embedded in the social contexts they navigate. Some recent research has demonstrated how aspects of the social context can produce particular social pressures, limit girls' viable opportunities, and give rise to violence. For instance, an emerging literature examines how women and girls' physical fighting or "girlfights" develops in response to demanding social pressures experienced by girls in particular. In a study based on 400 interviews with young women, Brown (2003) conceptualizes girlfights as a result of reinforcing gender stereotypes, placing unrealistic expectations on girls, and devaluing their contributions to society in comparison to men and boys. This context results in a great deal of social pressure and conveys a message that girls must work to attain success in every domain (e.g., appearance, academics, athletics, popularity, homemaking skills), even though they will likely not amount to "as much" as their male counterparts (Brown, 2003). Girls, in turn, are more likely to challenge and take their frustrations out on other girls instead of challenging stereotypes, Brown argues, because aggressing against girls is less of a social risk. That is, girls fight other girls for limited resources. Interpreted within a feminist framework, such acts of violence – even against other girls – are conceptualized as "acts of resistance" precisely because they emerge in response to social demands that are inherently gendered (Brown, 2003; Chesney-Lind & Pasko, 2004).

The social pressures within this opportunity structure can be viewed from the framework of social binds. In one analysis, the term "the triple bind" has been advanced and refers to competing gender norms to be simultaneously nurturing, competitive, and "make it all seem

effortless and natural… ultra-sexualized and ultra-feminized" (Hinshaw & Kranz, 2010, pg. xii). The ultimate impact of the triple bind is to place girls in a social position that discourages the development of genuine identity and results in a rise in mental health outcomes, including aggression and violence (Hinshaw & Kranz, 2010). That is, the presence of the triple bind sets unreachable and unrealistic expectations for girls that, in some cases, may lead to aggression. This can happen, for instance, through a process of learned helplessness (i.e., because the expectations of the triple bind are unattainable) that promotes aggression. Though this framework can be useful in understanding how girls may develop mental health challenges, few empirical studies have detailed particular examples linking bounded opportunities with use of violence.

Importantly, girls' limited opportunity structures and the hierarchies inherent in their interpersonal relationships are two overlapping and interrelated elements that exemplify how gender organizes the social structure and, in turn, informs the ways in which women's acts of violence are socially situated and gendered in their purpose and meaning. These elements of gender at the socio-structural level can be broadly encompassed in reference to gender-based oppression or patriarchy, referring to a social system characterized by male dominance. This study is therefore an attempt to examine patriarchal norms in order to understand how lower social power – both in terms of interpersonal relationships and opportunity structures – serves to organize the social context in ways that promote women's use of violence.

*Contextualizing Women's Pathways in terms of Gender as Socio-Structural Variable.* The second phase of this study incorporated these complex facets of gender at the socio-structural level into conceptualizations of women's violence. Toward this aim, an explicit effort was be made to situate women's acts of violence in a broader gendered context to better

understand the ways in which power and patriarchy organize the social structure and give rise to women's violence. Specifically, this analysis focused on how gender organizes women's interpersonal relationships and social opportunities. Particular attention was paid to gendered experiences (e.g., interpersonal violence, sex work) that may serve to illustrate the operation of patriarchal forces in women's lives and delineate the complex social terrain that women navigate and in which they may use violence. Thus, the general question guiding this analysis was, "*How is women's violence socially situated"*, with sub-questions focusing on the purpose(s) and meaning(s) of each act of violence described.

In addition, and toward the goal of integrating each Phase of the study, efforts were made to elaborate on the quantitative modeling from Phase I. Specifically, 3 of the "boxes" in the path model above were explored as part of Phase II: a) status offenses (e.g., how are status offenses socially situated and what were the purposes, meanings, and consequences of these status offense – e.g., "*What happened that made you run away and what happened once you ran away?");* b) traumatic events (e.g., what was the nature of the event, how did it come about, and what were the consequences – e.g., "*Tell me about [the trauma], what led up to it, and what happened afterwards*?"); and c) women's violence (e.g., motivations for committing a violent act – e.g., *"What led to your fight with that woman or your partner?"*). It was hypothesized that this exploration will help to contextualize these "boxes" through illuminating how proximal and distal environments are gendered.

**Present Study**

*Mixed Methods Framework.* Though each strand of literature reviewed offers valuable information regarding women's pathways to violence, these areas have largely remained separate. Indeed, findings from these literatures are not necessarily easy to reconcile. The present

study included the broad goal of bringing together potentially conflicting pieces of information in the context of the same study in order to bridge multiple perspectives with attention to gender at both individual and ecological levels.

*Definitions and Levels of Mixing.* In the current study, mixing occurs both at the level of method and epistemological, or paradigm, stance (Ponterotto, 2005; Greene, 2007). At the level of method, mixing occurs in the integration of main findings from the quantitative and qualitative Phases, focusing on mixing inferences made from statistics and qualitative themes, respectively. At the level of paradigm, mixing occurs in the integration of assumptions advanced by each paradigm. These assumptions are elaborated below. Thus, quantitative and qualitative are defined by virtue of the data used, the inferences made, and the paradigms used to draw those inferences. .

*Epistemological Considerations.* First, and following from a post-positivist tradition, it was assumed that there are important and nomothetic patterns associated with women's use of violence, and that these patterns can be compared to those of men in order to better understand the nature, moderators, and mechanisms of violence for women. The assumption here is that this pathway "exists" in reality and can be partially apprehended by employing a somewhat objective lens. Quantitative methods and statistical analysis, informed by a large sample that allowed for generalizability to similar populations, were used for this part of the study. In addition to this approach, it was also assumed that women's individual and unique experiences allowed for further exploration of their personal pathways to antisocial behavior. Qualitative methods were well suited to these goals as they do not impose (or at least impose less of) a structure and allowed for subjective realities to be described and the social meanings associated with these realities to be brought to bear. Finally, a criticalist feminist stance also guided the focus of this

proposal on the role of power and patriarchy in influencing women's use of violence. Viewing gendered power differentials as an important organizer of the social world was thus a driving influence on the interpretive framework employed in explaining and 'mixing' qualitative and quantitative components.

Following these epistemological considerations, this study employed a dialectic stance that viewed the differences between paradigms as important and legitimate (Greene, 2007; Greene & Caracelli, 1997). This framework encouraged the iterative, reflexive, and deliberate mixing of paradigms and methodologies such that paradox and divergence can be leveraged in order to generate fresh insights.

*Mixed Methods Purpose(s).* A mixed methods design was employed in this study for several purposes. *Triangulation, Complementarity, and Expansion* are mixed methods purposes of this study, because qualitative methods were used to examine convergence between quantitative and qualitative data, complemented and clarified results of the quantitative paths, and examined missing phenomenon toward the goal of expanding quantitative paths. Toward these goals, qualitative methods delineated violence-related *processes* by unpacking the relationships between quantitative factors (i.e., some qualitative questions were written with the purpose of providing a deeper and more comprehensive understanding of what the "links" or "chains" in the pathway "look like").

A further purpose was to generate *initiation,* for which, "different methods are implemented to assess various facets of the same complex phenomenon...but the intended result is indeed divergence or dissonance" (Green, 2007 p. 103). This proposal focuses on *gender* and *violence* as multi-faceted complex phenomenon. With regards to gender, quantitative methods compared how pathways to violence vary between men and women, and answered the question:

what factors are more or less related to violence, on average, for women versus men? Qualitative methods, on the other hand, examined the ways in which women's violence was situated within a social context in which gender structured interpersonal relationships and opportunity structures. Thus, different facets of gender were deliberately examined. Further, this multilevel conceptualization of gender invited paradox by deliberately searching for the multiple, and potentially opposing ways in which gender operates at both individual and socio-structural levels. This allowed for an examination of *how gender matters* for predicting violence at the individual (as a moderator) and socio-structural (as a social force) levels.

A further role of the initiation purpose of this study was to complicate the meaning associated with a second phenomenon: violence. Quantitative methods drew from prominent psychological theories that understand antisocial behavior as largely deviant and as associated with various biological and environmental factors of risk. Qualitative methods, on the other hand, examined the socially situated experiences of women who have engaged in violence and invited them to share the ways in which they have come to understand or make meaning of their use of violence. Violence was also considered as an act of resisting against social pressures that limit women's opportunity structures in decidedly gendered ways. This juxtaposition increased the potential for paradox, as it positioned the study to reconcile or blend a potentially destructive pathway indicative of antisocial patterns with the multi-layered contexts of women's lives, and the social meanings they ascribed to their experience.

*Mixed Methods Design.* Following from these purposes, the present study was characterized by an integrated design (Greene, 2007), and more specifically a "sequential transformative design" (Creswell et al., 2003) in which methods were positioned to intentionally interact with one another, allowing for the examination of complex facets of the same

phenomena; in this case, women's pathways to violence (Green, 2007). Each method was given

equal weight in drawing interpretations, and efforts were made to connect findings during

multiple study components (e.g., data collection, analysis; see Chapter 4, Data Analytic

Approach below).

CHAPTER 2

METHODS: PHASE I

**Participants**

Participants of Phase I were 323 men and 175 women ranging in age from 18 to 61

(Mean(*M)* = 30.3, Standard Deviation (*SD)* = 9.1), with no significant age differences between

genders (*t*(476) = 1.09, *ns*). To maximize the potential for high base rates of antisocial behavior

and violence, participants were recruited from 1) county jails (37.4%), 2) substance use treatment

(7.3%) and 3) parole/probation or with a history of legal convictions (55.2%). Participants were

excluded if they reported a lifetime diagnosis of psychotic or developmental disorders (due to the

potential for these disorders to bias scores of antisocial behavior) or were characterized by

extensive missing data (4.2%), resulting in a total sample of 312 men and 165 women. Most

participants (78.7%) reported low income (under $30,000 annually), had attained a high school

diploma or less (55.4%), and self-identified as being Caucasian (37.4%) or African-American

(54.5%). See Table 1 for full descriptive information.

**Procedures**

Participants were recruited during their incarceration in jail, through references from

parole, probation, and substance use agencies, and through targeted newspaper advertisements

for individuals with legal convictions. Because study variables did not significantly differ based

on recruitment site (e.g., jail, county probation), this variable was not used as a covariate in

subsequent analyses. Upon expressing interest in the study, participants were invited to complete

a 2.5-3 hour research session, during which they were interviewed and asked to complete self-

report questionnaires (see Appendix B and C). Interviewers, including advanced graduate

students trained in diagnostic assessment and supervised by a faculty member and licensed

clinical psychologist, were trained according to protocols provided by each type of interview. Using a structured protocol, a short demographic interview was followed by the Structured Clinical Interview for DSM-IV-TR Axis I Disorders, Non-patient Edition (SCID-I; First, Spitzer, Gibbon, & Williams, 2002) to elicit symptom level information on a variety of mental health outcomes. A validated life history interview based on the Psychopathy Checklist- Screening Version (PCL-SV; Hart, Hare & Forth, 1994) assessed early behavior problems, criminal history and engagement in violence and aggression throughout the life course (e.g., Schoenleber, Sadeh, & Verona, 2011). Items from this interview were used to rate DSM-IV symptoms of conduct disorder and violence perpetration, which were coded to create composites of conduct disorder and lifetime violence, respectively. Finally, genetic information was collected via buccal cell samples and genotyped according to standard procedures. A certificate of confidentiality granted by the National Institute of Health provided protection of participants' genetic and other data in the case of a subpoena/court order. At the commencement of the study session, participants provided permission and extensive alternative contact information so that they could be readily accessed for Phase II of the study (see Appendix F for IRB-approved consent documents).

**Measures**

*Genotypes.* Buccal cells were donated through standardized cheek swab procedures (Epicentre Technologies, Madison, WI) and handled according to validated storage (samples stored in an ultra low temperature freezer, below –20 degrees C) and safety protocols. The buccal swabs, subject to gene extraction procedures, provided information on two specific genes that have been identified as particularly important for antisocial outcomes: MAO-A and 5HTT. Genotyping from cells involve polymerase chain reaction (PCR) amplification. Primers for 5HTTLPR are 5'-GGCGTTGCCGCTCTGAATGC and 5'-

GAGGGACTGAGCTGGACAACCCAC. Primers for the MAO-A are 5'-

ACAGCCTGACCGTG GAGAAG-3' and 5'-GAACGGACGCTCCATTCG GA-3'.

Based on these procedures, participants were classified according to the common *5HTT*

genotypes: homozygous short (s/s; $n$ = 55, 13.0%), heterozygous (s/l; $n$ = 183, 43.2%), and

homozygous long (l/l; $n$ = 186, 43.9%) (Lesch & Merschdorf, 2000). The common *MAO-A*

genotypes examined include the 2 or 3-repeat allele that has been linked to low MAO-A activity

(i.e., MAO-A short; $n$ = 172, 41.1%) relative to 3.5-repeat alleles and longer (i.e., MAO-A long;

$n$ = 246; 58.9%) that have been associated with high MAO-A activity (Passamonti et al., 2006;

Sabol et al., 1998). Because MAO-A is linked to the X-chromosome, and women carry two

copies of the gene, women were grouped as high activity if either copy was a 3.5 repeat or

longer, consistent with previous studies (Ducci et al., 2008) and recommendations by the

National Institute on Drug Abuse (e.g., Wakschlag et al., 2009). The 5-HTT and MAO-A

genotypes were in Hardy-Weinberg equilibrium, $X^2$ = .17, $X^2$ = 1.4, respectively, $p$s> .24. Ten

samples did not yield genetic results, and 42 participants' genetic data were not available for

analysis. Genotyping was conducted by *Salimetrics*, LLC (State College, PA).

*Childhood abuse during childhood.* Information regarding childhood victimization was

gathered via the *Childhood Trauma Questionnaire* (*CTQ;* Bernstein et al., 1994)*,* a 28-item self-

reported inventory asking participants to report level of maltreatment when they were "growing

up". Five specific types of maltreatment were assessed, including emotional, physical, and sexual

abuse, and emotional and physical neglect. For this study, sexual and physical abuse ($r$ = .55, $p$<

.05) were combined to create the Childhood Abuse composite, which demonstrated high internal

consistency (Cronbach's α = .84). These abuse variables (instead of neglect or emotional abuse)

were used, because they represent threats to physical integrity in particular, which have been

shown to be powerful predictors of women's later (reduced) coping and antisocial behaviors (e.g., Farley & Barkan, 1998). Individuals rated each item on a 5-point scale ranging from "Never true" to "Always true" to convey how frequently they had abuse experiences as a child.

*Conduct disorder: childhood aggression.* The childhood aggression composite included childhood tendencies (before age 15) to aggress against people and/or animals, including bullying, physical fighting, stealing while confronting a victim, and using a weapon that could cause serious harm. This information was indexed by 6 items included in the diagnostic criteria of Conduct Disorder (CD), according to the DSM-IV-TR (APA, 2000), gathered through the validated life history interview described above. Interviewers coded each item based on retrospective reports, as being either "present" or "absent" before age 15. Secondary ratings of CD symptoms of aggression were completed for 28% of women and 27% of men and suggest that interviewers were consistent in their diagnostic ratings (intraclass correlation = .94, *p< .05*). A composite sum of symptom counts was created (range: $0 - 6$) and termed CD Aggression.

*Conduct disorder: status offenses.* Conduct problems involving status offenses included childhood tendencies (before age 13) to engage in serious rule violations, including running away from home, engaging in truancy, and violating curfew. These behaviors are referred to as status offenses, because they are illegal if committed by a person under the age of 18. This information was gathered from 3 items included in CD diagnostic criteria, including truancy, running away from home, and curfew violations in response to parental prohibition. Interviewers coded each item based on retrospective reports, as being either "present" or "absent" before age 13. This age cutoff is two years earlier than that described for CD aggression based on research suggesting that when serious rule violations occur after the age of 13, they are more age-appropriate and normative, and less indicative of symptoms of youth mental health problems

(e.g., Nock, Kazdin, Hiripi, & Kessler, 2006). Secondary ratings of CD symptoms of status offenses suggested that interviewers were consistent in their diagnostic ratings (intraclass correlation = .91, *p< .05*). A composite sum of symptom counts was created (range: 0 – 3) and termed CD Status Offenses.

*Emerging adulthood traumatic events*. Participants were interviewed about traumatic events within the posttraumatic stress disorder module of the SCID-I diagnostic assessment, based on procedures used in the National Comorbidity Study (Kessler, 1992). The interview asked them to provide information regarding a range of traumatic events they may have experienced and their age at the time the trauma occurred. Traumatic events that occurred *after* age 13 were included in the present study in order to a) differentiate them from victimization experiences occurring during "childhood", as assessed by the CTQ and b) distinguish these events developmentally from symptoms of CD status offenses, which were coded as present if they occur *before* the age of 13 years. Traumatic events that represented threats to physical integrity were coded as being present or absent. Specifically, participants reported whether they had ever experienced the following traumatic events after age 13: physical assault/attack (46%), sexual assault (12%), sexual abuse/molestation (3%) and other physical trauma (e.g., being shot; 3%). A composite Adult Trauma variable indexed the breadth or number of distinct categories of traumatic events reported (e.g., consistent with McHugo et al., 2005)

*Substance use disorder symptoms*. This information was gathered from SCID-I assessments of lifetime alcohol abuse (AA; e.g., failure to fulfill obligations; physically dangerous use), alcohol dependence (AD; larger amounts of alcohol taken or longer periods of drinking; persistent desire to cut use or unsuccessful control of use), and drug dependence (DD; larger amounts of drugs taken or longer periods of drinking; persistent desire to cut use or

unsuccessful control of use) (First, Spitzer, Gibbon, & Williams, 2002). For alcohol use, items on both the abuse and dependence subscales were summed as an index of alcohol abuse/dependence symptom count, because each type of behavior (i.e., abuse- and dependence-related) provides information on maladaptive drinking patterns. For drug use, information was gathered on numerous types of drugs (i.e., sedatives/hypnotics/anxiolytics, cannabis, stimulants, opioids, cocaine, hallucinogens, and other drugs), and dependence symptoms were assessed with respect to either the most problematic drug endorsed by the participant or, if no drug was labeled as problematic, any drug used more than twice in one month. Dependence items for drugs were summed to create a composite drug dependence symptom count. Secondary ratings of Alcohol and Drug dependence symptoms suggested that interviewers were consistent in their diagnostic ratings (intraclass correlation = .91 and .97, respectively, $ps< .05$). Alcohol and drug composites ($r = .30, p< .05$) were standardized and summed to create a Substance Use Composite.

*History of violence*. The violence dependent variable was informed by two different instruments. First, items from the Aggression subscale of the *Life History of Aggression* (LHA; Coccaro, Berman, & Kavoussi, 1997) inventory informed the extent to which participants engaged in violent acts since age 13, including physical fighting and other physical assaults that may have occurred outside of fighting. While the LHA does not distill the context in which these acts of violence occurred (e.g., in a dating relationship), scores on the LHA reflect numerous types of violence across contexts. Each item was rated by a diagnostic interviewer, based on information gathered during the life history interview described above, where ratings range on a scale from 0 to 5 according to how frequently the individual engaged in that type of behavior since the age of 13 (from "Never" to "Too many times to count"). Second, public criminal records of all participants were reviewed in each state in which the participants reportedly

resided in their lifetime. These data were unavailable for 7.3% of participants ($n = 35$) and were coded as missing. Trained undergraduate raters used a structured coding protocol in which they checked 1) federal criminal records, 2) prison records, and 3) court dockets for every participant, using multiple databases for prison records and court dockets if participants reported having resided in multiple states (see Background Questionnaire, Appendix B). These data informed the extent to which participants were formally charged with a violent act. The number of such formal charges was tallied to provide an officially-reported index of violence, where violent acts were defined based on whether the crime appears on the Violent Crime Index and is an act of violence against another person(s) (e.g., aggravated assault, murder; FBI, 2007). Thirty eight percent of women and 67% of men had at least one formal charge for a violent offense. Interviewer-rated LHA violence and public records of violence composites ($r = .23, p < .05$) were standardized and averaged to create a composite termed Violence.

**Data Analytic Plan**

Path analysis was conducted through the computer program MPLUS 5.21 using maximum likelihood estimation given that the dependent variables were not characterized by kurtosis or skewness indices that were above 1.0 or below -1.0 (Kutner, Nachtsheim, Neter, & Li, 2004; estimates of kurtosis and skewnewss, respectively, between -.68 and .64 for full sample; .04 and -.79 for men; .57 and .30 for women). The first goal of analysis was to examine the extent to which the proposed model of violence varies by gender. To do so, multi-group modeling was employed to examine gender differences in the overall fit of the model and in the weights of hypothesized paths (indicated by the red arrows in Figure 1). Specifically, the gender invariant model in which all of the paths are constrained to be equal across men and women was compared to a female-specific model in which proposed female specific paths were allowed to

vary across men and women. Figure 1 depicts the proposed full model, including hypothesized gender common (Path A; gray arrows) and female specific (Path B; red arrows) paths. Specifically, the top path in the model (Path A) included residualized interactions between 5HTT and Child abuse and MAO-A and Child Abuse. The bottom path (Path B) also included the residualized interactions between specific genes and abuse, but involved a pathway to Violence through CD Status Offenses, Adult Trauma, and Substance Use.  If gender-variance was supported, a second goal was to examine the interrelationships between independent and dependent variables separately for men and women, including by examining direct and indirect effects between paths.

Data quality was evaluated using model fit indices and statistical tests of differences in fit. Specifically, model fit was evaluated using the chi square goodness-of-fit statistic ($\chi 2$), the Tucker-Lewis index (TLI), the comparative fit index (CFI), and the root mean square error of approximation (RMSEA). In addition, a chi square difference test ($\Delta\chi 2$) was used to determine whether there was a significant difference in fit between gender-constrained/invariant and unconstrained/variant models; that is, between nested models.

Secondary analyses were conducted in order to further examine the data. First, because socioeconomic status is significantly related to the variables of interest, this variable (composite index of participants' education and income) was entered as a covariate (violence was regressed onto SES). Second, because of the small within-gender sample size for the 5HTT short/short category, this genotype was recoded to contrast individuals with any short allele (i.e., short/short and short/long) to those homozygous for the long allele (long/long). In both cases, the same pattern of results emerged; thus, subsequent analyses do not included SES as a covariate and use the three-group category of 5HTT to retain specificity.

CHAPTER 3

RESULTS: PHASE I

Results from Phase I largely support hypotheses and suggest two main findings: 1)
gender moderates pathways to violence and 2) risk factors in the female-specific model
significantly interrelate in direct and indirect ways to explain variance in women's violence.
However, though the overall path model explained significant variance in men's violence, the
model was not an adequate fit for men overall, and there were no direct genetic or GxE effects
found for men. Thus, results are most relevant for understanding women's pathways to violence.

**Variable Means and Intercorrelations**

Tables 2, 3, and 4 report descriptive information and bivariate correlations for the full
sample and separately for men and women. Notably, while men and women did not exhibit
differences on 5HTT genotype and substance use, gender differences were found for all other
study variables (see Tables 2 and 3). Women were more likely to carry the MAO-A high activity
allele ($\chi2(1) = 24.09$, $p< .05$) and to report more childhood abuse of any kind ($t(461) = 5.79$, $p<$
$.05$) and adulthood traumatic events ($t(459) = 6.08$, $p< .05$), though differences were limited to
sexual trauma for the latter variable. On the other hand, men were more likely to have more
conduct disorder aggressive ($t(462) = -7.09$, $p< .05$) and status offense symptoms ($t(462) = -$
$1.68$, $p< .05$), as well as have used more violence ($t(473) = -8.36$, $p< .05$). Despite these mean
level gender differences, there was notable variability on victimization and violence variables for
men and women (see Table 3 for range of scores in men and women).

Bivariate correlations are reported in Table 4 separately for men and women. For the total
sample, positive relationships were found between Violence and both CD Aggression and CD
Status offenses; Child Abuse and Adult Trauma; and Substance Use and all other study

variables. A gender difference in correlations was found for Substance Use, which was more strongly positively correlated with Violence for women compared to men (Fisher's $Z = -2.21$, $p <$ .05). In addition, though Adult Trauma was significantly related to CD (Aggression and Status) and Child Abuse for women but not for men, differences in correlations were not statistically significant (Fisher's $Z$ between -1.36 and -1.05, *ns*). No other significant differences between correlations emerged.

**Multi-group Modeling: Test of Gender Invariance**

Consistent with the first goal of exploring gender differences in pathways to violence, multi-group modeling was employed to examine gender differences in the overall fit of the model. Because CD Aggression and CD Status constitute symptoms from the same construct (i.e., Conduct Disorder), these indicators were allowed to correlate in all subsequent path analyses. Notably, consistent with Purcell (2002), only the residualized interactions between genes and Child Abuse (and not main effects) were included in primary analyses because a) it was specifically hypothesized that the combined effects of genes and Child Abuse would constitute risk for violence, and b) this allowed for the preservation of statistical power given that, at minimum, seven extra parameters would be added by including gene and Child Abuse main effects. However, when analyses were also conducted with gene and Child Abuse main effects, these analyses revealed the same pattern of results. In addition, adding the simple effects in preliminary analysis allowed for an analysis of gene-environment correlations (e.g., Jaffee & Price, 2007). Results suggested that when the gene and environment variables were allowed to correlate in the model, the findings regarding the interaction did not change, suggesting that a gene-environment correlation did not account for the interaction. These additional analyses including main effects are reported in conjunction with each analysis step below. Linear

regression analyses examining the interaction between child abuse, each specific gene, and CD Status and CD Aggression are also reported. Standardized Beta's and Standard Errors for these are reported in Figures 3 and 4.

A gender-invariant model included all paths (including Path A and Path B) with path coefficients constrained to be equal across genders, and this model was characterized by a poor fit according to most fit indices ($\chi2(29) = 62.21$, *p< .05*; CFI = .85; TLI = .79; RMSEA = .07; AIC = 11630.56). A female-specific model was created to be exactly the same as the gender-invariant model, with the exception of allowing path coefficients for Path B to vary for men and women. This model represented a significant improvement in fit compared to the gender-invariant model ($\Delta\chi2(5) = 11.91$, *p< .05; $\chi2(24) = 50.20$, p< .05*; CFI = .88; TLI = .80; RMSEA = .06; AIC = 11628.55), suggesting gender differences in this pathway to violence. Inclusion of the simple effects of 5HTT, MAO-A and Child Abuse did not change the pattern of results, which similarly evidence a significant improvement in fit for the female-specific as compared with the gender-invariant model ($\Delta\chi2 (9) = 24.08$, *p< .05*). Finally, gender differences in Path A (i.e., the hypothesized gender common path) alone were examined. Results suggest this model did not significantly vary for men and women and was an excellent fit for the full sample ($\Delta\chi2 (4) = 8.95$, *ns*), CFI = .99; RMSEA = .03) suggesting its relevance for both men and women.

**Path Analysis Within Gender Groups**

Consistent with the second goal, and given evidence supporting gender-specificity in the model, path models were examined separately for men and women. Figure 2 depicts standardized parameter estimates of the path model for women and men separately, illustrating different multivariate relationships between genders. Overall, this model explained 31% (*p< .05*) and 21% (*p< .05*) of the variance in Violence for women and men, respectively.

*Women's pathways to violence.* For women, the full model represented a very good fit evidenced by a non-significant chi-square ($\chi2(10) = 13.34$, *ns*) and supported by other fit indices (CFI = .96; TLI = .93; RMSEA = .04). Standardized parameter estimates for women's path model are largely consistent with hypotheses. Namely, significant interactions between specific genes and Child Abuse differentially contributed to variance in symptoms of CD Aggression and CD Status Offenses, and these two CD symptom categories related to Violence either directly (Path A) or indirectly (Path B), respectively.

In particular, Path A was characterized by a positive relationship between MAO-A by Abuse and CD Aggression ($\beta = .20$, *p< .05*), which was in turn positively associated with Violence ($\beta = .47$, *p< .05*), but not Substance Use Symptoms ($\beta = .08$, *ns*). Follow up analyses suggested that the MAO-A gene by abuse interaction was driven by carriers of high activity MAO-A and a history of Child Abuse scoring highest on CD Aggression (see Figure 3); a finding that contrasts empirical research conducted with male only samples suggesting that low activity MAO-A allele confers higher risk (e.g., Caspi et al., 2002). That is, CD Aggression was more strongly related to childhood abuse for carriers of the *high* activity MAO-A allele (*r* = .30, *p< .05*) as compared to carriers of the low activity MAO-A allele (*r* = -.09, *ns*). Interestingly, further follow up analyses suggested that this GxE was associated directly with Violence perpetration according to a similar pattern, such that for high activity MAO-A carriers, childhood abuse was more strongly related to Violence (*r* = .41, *p< .05*) as compared to carriers of the low activity MAO-A allele (*r* = .12, *ns*).

Path B was characterized by a positive relationship between 5HTT by Abuse and CD Status Offenses ($\beta = -.18$, *p< .05*), with greater copies of the 5HTT short allele and histories of Child Abuse driving this interaction (see Figure 4). That is, a dose effect was observed, such that

childhood histories of physical and/or sexual abuse were more strongly related to engagement in status offenses with greater replications of the 5HTT short allele. Gender moderation was likely evidenced because associations between abuse and status offenses within 5HTT allele groups were in opposite directions for men and women. This same GxE did not predict Violence perpetration directly. Instead, evidence for an indirect path to violence emerged, such that status offenses were positively related to Adult Trauma ($\beta = .19$, $p < .05$); Adult Trauma was related to Substance Use ($\beta = .30$, $p < .05$); and Substance Use was related to Violence ($\beta = .17$, $p < .05$).

Notably, inclusion of the simple effects of 5HTT, MAO-A and Child Abuse did not change the pattern of results, including with respect to GxE effects. For women, none of these simple effects were significantly related to CD Aggression or CD Status Offenses ($\beta$s between -.08 and .11, $ps > .13$) in the context of a model accounting for their interactions.

*Women's indirect paths to violence.* Indirect effects on violence were also examined empirically using Model INDIRECT in MPLUS. These results largely support the presence of indirect effects that promote violence via hypothesized intervening variables. Within Path A, the MAO-A by Abuse interaction was indirectly related to Violence via CD Aggression ($\beta = .11$, $p < .05$) but not via Substance Use ($\beta = .00$, *ns*), suggesting that GxE's impact on adult violence occurs via early behavior problems but not substance use disorders. Within Path B, evidence did not support indirect effects from 5HTT by Abuse to either Violence, Substance Use, or Adult Trauma ($\beta$s between -.06 and .00, $ps > .12$), suggesting that 5HTT by Abuse interaction did not indirectly explain variance in these variables. However, results supported significant indirect paths from CD Status Offenses to Substance Use via Adult Trauma ($\beta = .07$, $p < .05$); and Adult Trauma to Violence via Substance Use ($\beta = .05$, $p < .05$).

In sum, results for women suggest that genetic risk from MAO-A in combination with early childhood abuse indirectly explains variance in violence perpetration via the effects of CD Aggression (Path A). In contrast, the 5HTT by Abuse interaction has a direct effect on CD Status Offenses but no indirect effects on subsequent variables, suggesting that greater tendencies toward impulsivity *and* reporting abusive childhood environments accord risk for early disciplinary problems (e.g., greater impulsivity may promote greater likelihood of running away from an abusive home). Further, the perpetration of CD Status Offenses accords risk, directly, for exposure to Adulthood Traumatic Experiences, and indirectly, for substance use and, in turn, violence perpetration. Thus, the direct effect from the GxE influences greater status offenses, which in turn have a direct effect on exposure to Traumatic Experiences and an indirect effect on Substance Use (via Traumatic Experiences). Traumatic Experiences also directly influence Substance Use and, indirectly, Violence (via Substance Use).

*Men's pathways to violence*. For men, the full model did not represent an adequate fit ($\chi 2(10) = 27.63$. $p < .05$; CFI = .87; TLI = .74; RMSEA = .08). In Path A, the GxE paths to CD Aggression were not significant and small in magnitude. CD Aggression, however, was significantly associated with Substance Use ($\beta = .15$, $p < .05$) and, more strongly, with Violence ($\beta = .51$, $p < .05$). In Path B, no relationships were significant in men, with the exception of the path between Adult Trauma and Substance Use ($\beta = .16$, $p < .05$).

As was the case for women, inclusion of the simple effects of 5HTT, MAO-A and Child Abuse did not change the pattern of results, including GxE interactions. For men, only Child Abuse was significantly related to CD Aggression ($\beta = .14$, $p < .05$) and MAO-A low activity allele was marginally related to CD Aggression ($\beta = -.11$, $p = .07$).

*Men's indirect paths to violence.* Indirect effects on violence were also explored in men using Model INDIRECT in MPLUS. In contrast to results for women, there was no evidence in support of significant indirect effects to any endogenous variable for men. Specifically, within Path A, MAO-A by Abuse was not related to Violence via the effects of CD Aggression ($\beta$ = -.02, *p* = .58) or Substance Use ($\beta$ = .00, *ns*). Within Path B, evidence did not support indirect effects from 5HTT by Abuse to either Violence, Substance Use, or Adult Trauma ($\beta$s between .00 and .01, *ps> .68*), suggesting that 5HTT by Abuse interaction did not indirectly explain variance in these variables. Similarly, none of the other variables in the model, including CD Status Offenses, Adult Trauma, and Substance Use, evidenced indirect effects on any other endogenous variables ($\beta$s between -.01 and .00, *ps> .24*). In sum, these results suggest that the variables in the path model, particularly those in the hypothesized female specific Path B, are neither directly nor indirectly related to violence via proposed intervening variables in men.

**Summary**

There were two main findings in Phase I. First, gender-specificity was evidenced and supported a model in which the hypothesized female-specific path was allowed to vary for men and women. This path was a significantly better fit for women's pathways to violence as compared with men's. Second, examination of path loadings suggested two important paths to violence for women: one in which genetic risk from MAO-A in combination with early childhood abuse indirectly explains variance in violence perpetration via the effects of CD Aggression (Path A); and one in which the 5HTT by Abuse interaction has a direct effect on CD Status Offenses, and the perpetration of CD Status Offenses accords risk, directly, for exposure to Adulthood Traumatic Experiences, and indirectly via Adulthood Trauma for substance use and violence perpetration. Adulthood trauma also evidenced an indirect path to violence via its

influence on Substance Use. One implication of these results is that women's violence is associated with risk factors that are both gender-common and female-specific. In the next Phase, women's paths to violence were further examined qualitatively for a subset of 20 women with attention to the sequence of risky experiences and context in which violence arose.

# CHAPTER 4

## METHODS: PHASE II

### Retention and Eligibility from Phase I to Phase II

Comprehensive contact information was collected from each participant to ensure a successful follow-up process. Specifically, telephone numbers, emails, and home addresses were available for each participant and at least one significant other (e.g., relative, friend). Further, multiple accommodations were made to remove barriers to participation, such as through provision of transportation to research settings (e.g., bus tokens) and adoption of a flexible approach in conducting interviews at alternative private locations (e.g., near participants homes or workplaces).

In order to help ensure that women participating in the interview have used violence, only women who had a score of at least two (i.e., 2-3 acts) on LHA violence items (i.e., physical fights; physical assaults) were purposively sampled. These women were further divided in subsamples based on findings from the quantitative phase: women who reported running away (a status offense) before the age of 15 and women who did not report running away. One item on the CD Questionnaire ("ran away at least twice or once if real long") was used to categorize women into Runaway and Non-Runaway Groups. This particular criterion was chosen because it represented a concrete experience that differentiated path A and path B (from the quantitative portion), could help promote representation of both 'paths', and promoted comparison of the qualitative narratives against quantitative findings (e.g., do the qualitative data support evidence for the quantitative paths? In what ways to they converge and diverge?).

In total, 38 women from the Runaway (R) group and 94 women from the Non-Runaway (NR) group were eligible to participate based on violence criteria (i.e., having a score of at least

2 on the LHA). All women were contacted at least one time via phone, email, and alternative contact (if permission was given). Ten women from the Runaway and 59 women from the Non-Runaway Path had a disconnected phone and provided alternative contacts that did not return calls. All women who were successfully contacted were willing to be interviewed. Two women did not arrive at their scheduled time and were not reachable in the future. Two interested participants were turned down for the interview once the 20 participant capacity of the study was reached (due to limited resources). Women were each paid $15 per hour and provided a five dollar bonus for coming to their first scheduled interview session (see APPENDIX: F).

**Participants and Procedures**

Twenty women participated in face-to-face semi-structured qualitative interviews, which lasted an average of 95 minutes, constituting a reasonable sample size for this analysis (Creswell et al., 2003). In total, eleven Runaway women and nine Non-Runaway women participated in the interview. Women participating in the interview had an LHA violence score between two and ten ($M = 3.95$, $SD = 1.85$), suggesting that they engaged in an average of "many" or "numerous" (i.e., 10+) acts of violence. While women were recruited from a medium-sized Midwestern City, they recount experiences in a wide variety of contexts, including rural and urban. Women were between 20 and 54 years old at the time of the interview ($M = 31$, $SD = 9$). A little more than half of women ($n = 11$; 55%) were Caucasian, while the rest of the sample identified as Black or Mixed ($n = 9$; 45%). A majority of women could be characterized as having low socioeconomic status, with over 75% reporting gross income of less than $15,000 per year and over 40% never having received a high school diploma or equivalent. Half of women reported being single (i.e., unmarried) and had between one and five children ($M = 2$, $SD = 1$ child). Runaway and Non-Runaway subgroups did not differ on any of these characteristics.

Comparisons between the 20 women who participated in qualitative interviews and the other 112 eligible women who did not participate suggested no significant differences on the descriptive variables described above, with one exception: eligible women who did not participate had a greater number of children ($M = 3$, $SD = 1$) at the time of initial participation as compared with women who did participate ($M = 2$, $SD = 1$; $t(129) = 2.02$, $p < .05$). In addition, women who participated in the qualitative interviews did not differ with respect to any of the key study variables examined in path modeling, including Violence, as compared with eligible women who did not participate ($p$s between .25 and .95).

**Measures**

The qualitative interview protocol was developed for purposes of this study with a focus on understanding women's lives more broadly as well as the nature and meaning of their use of violence (see APPENDIX D). In part, the interview took a "life history" approach and probed around shaping experiences and turning points (e.g., McAdams, 1993). In addition to these more holistic probes, specific inquires were made regarding important interpersonal relationships (romantic and non-romantic) and exposure to gender-salient contexts of intimate partner violence, sex work, and/or sexual assault experienced over the course of women's lives (cf Javdani et al., 2011b). Further, use of violence was specifically probed and women were asked to describe their engagement in violence, including times that were memorable, meaningful or important in their lives, as well as the reasons and social communications (if any) behind each act. A final section was developed directly as a result of the quantitative findings from Phase I and inquired about all of the constructs examined through path analysis, with attention to sequence, convergence, divergence, and elaboration of the results of path analysis. Overall, the interview protocol was deliberately structured to begin with the broadest questions and end with

the narrowest set of questions based on a priori areas of interest. Every interview was transcribed in its entirety.

In tandem, information gathered from this interview helped to *contextualize* women's behaviors by situating them in interpersonal and socio-structural contexts in which gender plays an important role; attend to the social meanings and purposes women ascribe to their experiences; and investigate the *processes* by which women's violence emerged (i.e., unpacking the "boxes" from the path model).

**Data Analytic Approach**

*Coding Process.* Interview transcripts were analyzed using multiple strategies. Each interview was first analyzed holistically to generate a narrative and theory of violence use for every individual (Charmaz, 2005; Glaser & Strauss, 1977). This information was used in conjunction with field note documents that were generated immediately before and after each interview (see Appendix E), which documented the interview setting, emerging hypotheses about the interpersonal and socio-structural context surrounding women's' use of violence, and referenced the interview with respect to the findings from the quantitative portion. Next, transcripts were coded using an open, deductive approach using qualitative software (NVivo8 QSR). Open coding refers to an unrestricted analytic approach that allows for the identification of themes to generate further hypotheses (Berg, 2001). In this step both inductive (i.e., grounded in terms used by participants) and deductive (i.e., theoretical constructs decided upon a priori) approaches were used to analyze data. During this process, codes were generated without regard to subgroup category (i.e., Runaway versus Non-Runaway).

Next, in keeping with the principals of grounded theory (Charmaz, 2005; Glaser & Strauss, 1977), themes (e.g., relationship with romantic partner) were categorized into core

theoretical concepts (e.g., subjugated social roles) and an iterative approach of "constant comparison" was used to check core theoretical concepts in reference to each new interview transcript. During this process, two primary aims were to document emergent themes that repeat and reflect a meaningful collective concept, and to re-assess, modify, and/or expand core concepts with each new interview, thereby "grounding" the emerging theory in the data. In addition, memos were generated during the coding process in order to track questions, ideas, and observations (Emerson et al., 1995) and help modify and develop emerging themes and theoretical concepts. As part of this analytic step, transcripts were categorized according to subgroup, and memos were targeted toward identifying similarities and differences across Runaway and Non-Runaway violence pathways. For example, the analysis examined whether and how running away emerged as an important experience in women's pathway to violence, including how it may have served as a construct that differentiated pathways.

Steps were also taken to promote validity and consistency in the generation of codes and concepts from qualitative interviews. Classic validity criteria were used toward this aim, including enhancing the credibility, dependability, and transferability of observations (meant to parallel internal validity, reliability, and external validity indices, respectively, traditionally informing quantitative inquiry; Guba & Lincoln, 1989; Guba & Lincoln, 2005). Credibility was promoted through persistent observation informed by multiple interviews aimed at establishing depth and scope, peer debriefing techniques that include engaging in discussions about the themes and theories generated with a team of individuals who were not involved in the initial data collection, negative case analysis where conclusions and theories were checked against all cases and atypical cases were highlighted, and progressive subjectivity promoted by taking field notes and memoing before and after interviews to promote reflexivity (the process of reflecting

critically on the self as researcher or human as instrument) so that the subjectivity of the

interviewer was explicated and checked against the constructions of the interview participants.

Next, the relative transferability of findings was approached through engaging in "thick

description" of the time, place, and context in which hypotheses emerged. This allowed the

patterns and theories emerging from this study to be grounded in the particulars of the context in

which study participants were embedded and facilitated construction of transferability judgments

relative to other research and applied contexts.  Finally, dependability was approached by

creating a transparent process that documented shifts in interpretations and explicated the

inquirer's decision points. Thus, the validity and applicability of theory generated during the

analysis process were checked by reflexively comparing conclusions to patterns evidenced in the

data, engaging in peer debriefing, and searching for and explicating negative cases, which

involved a process of actively pursuing evidence that disconfirms emerging hypotheses[2] (Berg,

2001; Miller, 2008).

*Individual Path Models.* A primary analytical approach was the use of a visual display,

often used in mixed-methods research toward juxtaposing findings from different methods

(Tashakkori & Teddlie, 2003). In this study, an individual pathway model was created for each

woman and separated for Non-Runaway and Runaway women in Figures 5 and 6, respectively.

This analytic step was taken to understand the trajectories and sequence of risks in women's

pathways to violence. In addition to depicting each individual act of violence reported by

women, figures depicted three main experiences/codes a) constructs that parallel those in the

quantitative modeling, b) reports of gender-salient experience with a focus on IPV and sex work,

and c) critical life events described by women at any point in the interview. These themes are

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[2] For instance, there was one individual for whom a romantic relationship reflected a positive
trajectory and a reduction in violence use.

depicted in sequence and grouped for Non-Runaway (Figure 5) and Runaway (Figure 6) women. In each figure, reports of any of the experiences examined in the quantitative phase of the study – including childhood abuse, fighting during childhood/adolescence, running away and other status offenses, traumatic experiences, and substance use – are labeled for all women reporting such experiences. Within these figures, green circles denote specific act of perpetrated violence in adulthood; some are discrete (e.g., a punch) while others are not (e.g., a fight that lasted 10 minutes in which several violent acts occurred). Purple and red stars depict IPV and sex work, respectively, with IPV defined as a relationship in which an intimate romantic partner was violent against the participant and sex work includes any act in which a woman exchanged sex for money or goods (e.g., drugs). The placement of these red and purple stars represents the time of their onset. Importantly, though experiences are organized in sequence, the sequence should be interpreted as relative, not exactly literal (i.e., five acts of violence spread across the arrow mean that these five occurred one after the other and not, for instance, exactly 6 months apart from one another). Overall, this analytic approach allowed for comparison between quantitative and qualitative paths as well as between Runaway and Non-Runaway women.

CHAPTER 5

RESULTS: PHASE II

**Overview**

There are three main findings from this phase of the study. (1) The path models

evidenced in the quantitative phase of the study are a) largely supported, b) overlapping, and c)

ripe for elaboration. (2) Quantitative paths are elaborated by the qualitative data by suggesting

evidence for the importance of gender-salient contexts of IPV and sex work in women's

pathways to violence, with sex work being particularly influential for Runaway women. (3) The

subjugated roles that women inherit in interpersonal spaces create limited opportunities with few

liberating choices, and this gendered context can promote women's use of violence and elucidate

the function and meaning of their violence. This latter point challenges the quantitative finding

that only Path B is 'female specific' by underscoring the ways in which both routes to violence

are inherently gendered even though the one path is common to both men and women.

**Violence Pathways: Support and Elaboration of Quantitative Paths**

This subsection focuses on the comparison between quantitative and qualitative findings.

Two analysis components in service of this goal include first comparing Figures 5 and 6 with one

another and with Path A and Path B from Phase I. Second, women's narrative accounts are used

to "story" the path models using women's own terms and as a way to better understand particular

constructs (e.g., sex work) and the roles they played in women's lives. Results suggest that

qualitative data largely support findings from the quantitative phase, including the sequence of

experiences and the relevance of them for women's violence. However, qualitative interviews

also extend and elaborate on Paths A and B and are consistent with previous theorizing in

feminist and sociological literatures (e.g., Chesney-Lind & Pasko, 2004).

**Support for Quantitative Findings**

*Non-Runaway Women and Comparisons with Path A.* Overall, qualitative data largely

provide evidence in support of the results from quantitative path analysis. Figure 5 demonstrates

that every Non-Runaway woman ($n = 9$) reported fighting with peers, partner, parents, and/or

siblings during their youth (and by age 15 years), and that this violence continued into adulthood.

The majority (i.e., six out of nine) of women also report childhood histories of abuse. Thus, the

individual pathways generated from Non-Runaway women's life stories are largely in support of

a Path A, through which childhood abuse is associated with aggression (and in particular

physical fighting) during youth and continued violence in adulthood. One woman's account

exemplifies this path. She is a 39-year old African American mother of two children whose

children were taken away from her because she did not comply with a court order to file an order

of protection against her severely violent partner. She describes an isolated and lonely childhood,

during which she witnessed her mother be raped and beaten by several boyfriends and fall deeper

into addiction. When asked how she has responded to these life challenges, she says [age 39,

NR]:

> A:  I've fought all my life…All my life.
> Q:  Really? And what were the fights over?
> A:  Nine times out of ten probably over drugs or somebody. You wanting them to get away from you or you telling them to stop knocking on your door or get out of here. And maybe you beat me out some money and whatever. Or maybe it was the opposite way around.

Her account illustrates that she views violence as having been part of her whole life, rather than

as distinct and separate incidents. She also makes the point that violence was often used as a

means of "getting the results I wanted", such as a response to "beat[ing] me out some money…or

the other way around". This latter statement relates to one she made later; that she views herself

being "a hustler and…[a player] in the game" and is willing to fight in order to defend her role. Speaking to this point, when asked goals she typically used violence to pursue, she replies:

> My way, whatever my way was, or whatever that was going to satisfy me right then at that time….[like] respect, my space, mostly respect though…[and power?]…Yea, it's like an adrenaline rush. When you're fighting then once you see that you've succeeded in this fight, then here comes the adrenaline. And it didn't matter to me [what the consequences were]. It didn't.

Interestingly, her description of the "adrenaline rush" suggests that she did not find all aspects of fighting negative or unpleasant. In contrast, she seems to enjoy the thrill and sometimes seeks or approaches the sensations associated with the "adrenaline rush". Though a major portion of the interview is spent describing how fighting was an effective way to protect herself, at least in the short term, it constituted a set of skills she was "good at" and found thrilling.

Another participant describes a similar experience of childhood abuse and early-onset fighting that often had the purpose of trying to obtain and communicate her needs. Her early childhood was marked by parental substance abuse; her father was an alcoholic and heroin addict and her mother left her family when the participant was four years old. Between the ages of four and nine years, she grew up in extreme rural poverty. A turning point came when her mother returned home to obtain custody of her and her sister when the participant was nine years old. Nevertheless, she was still largely "raising [her]self" by, for instance "tr[ying] to enroll myself in school". Though she learned to fight after around age 10, her first major fight was with her older sister right before she turned 15, and resulted in the participant being institutionalized in an inpatient unit for several weeks. She recounts that her adolescence was still tumultuous, particularly when her mother attempted to give custody of her to her "rich grandma" who lived in another state; an arrangement to which the participant was opposed. She elaborates on the

situation to say that her older sister, mother, and grandma were all talking about her "behind her back". She recalls confronting her sister about this [age 20, NR]:

> [M]y sister wouldn't talk to me, she wouldn't, she wouldn't tell me what was going on. She said get out of my face. I don't want to talk to you, everything, all this and that. And she went to leave and I followed her and I followed her the entire block down to the gas station. She was going to get a phone card to continue to call my grandmother long distance. And I started getting mad. Like you know this is my life, these things concern me. You can't just make those decisions and exclude me from it. If you don't want me that's fine. But you don't have any responsibility over my life. At least give me the respect to tell me what you're going to do to me. And she [my sister] turned around and she started yelling and screaming at me. And I wasn't having it so I hit her very hard. And she tried to hit me and that infuriated me, and I beat the fuck out of her… I ended up in the police station [and they tried to release me to my mom but]…my mom didn't want to have anything to do with me and she said that I needed a psychiatric evaluation before she would let me in the house because she felt unsafe…[and so] they sent me away [to the hospital].

This participants use of violence can be located both in the context of her early abuse, during which she learned to fend for herself and mistrust the extent to which her family had her best interest in mind; as well as in a personal struggle with "feeling unwanted…all my life". Her recollection of the very violent attack against her older sister – at a public gas station – may suggest that she was willing to take extreme measures to exert influence over her own life. Indeed, when asked what she was trying to communicate during this fight, she recalls:

> [My sister] wouldn't talk to me about what she intended to do with me. Which was none of her control or business in the first place. And she wouldn't talk to me she wouldn't tell me. And that made me very upset like I felt like I had no control over my life and that made me feel very unsafe. [So by hitting her, I wanted to say]…communicate with me. Just tell me….Just talk to me.

This young woman's description conveys that she felt unsafe because of the perception that decisions were being made about her life without her input and because the people making these decisions were those closest to her. Thus, this example may reflect a situation in which this participant was willing to take extreme measure to take control over her own life in the context

of perceived limited alternative choices. This same pattern continued into adulthood, including fighting both of her long-term romantic partners when they tried to impose restrictions on who she could talk to (e.g., other boys), and fighting a girl who one of her boyfriends had an affair with for several months while they were together, resulting in a difficult and violent breakup.

As these two descriptions suggest, a central theme in Non-Runaway women's lives were childhoods characterized by abuse and neglect and adolescent-onset and persistent fights/aggression, including some severe acts of violence These findings are largely consistent with the 'gender common' path evidenced in Phase I of the study. The qualitative accounts also demonstrate the context in which early and later violence arose. As illustrated in these women's stories, given limited resources, violence may serve a role in communicating and obtaining needs. As one participant summed up, "I feel that I became violent because I felt like I had no choice…no choice but to become violent."

*Runaway Women and Comparisons with Path B*. Figure 6 depicts paths for all of the Runaway women participating in the qualitative interview (*n* = 11). As expected, every woman confirmed that she ran away from home at least one time during childhood, but perhaps more interestingly, all but one participant brought up running away from home spontaneously (i.e., without being asked; e.g., as a life changing event, an important experience, a turning point), signifying that the event(s) was experienced as subjectively meaningful. Further, every woman's (first) Runaway event was preceded by physical or sexual abuse or neglect, which often could not be characterized as a single event but was instead a description of a childhood climate of abuse. For instance, one woman [age 31, R] lived at home with her crack cocaine-addicted mother, whom she saw raped multiple times growing up. Her home was characterized as very low monitoring, and as she became older, she began staying out late. One of these times, she was

raped by an older male (a friend's mother's boyfriend) and subsequently came back home to look after her siblings because she did not want the same thing to happen to them.

In addition to supporting the interpretation that women were running away from abusive homes, the qualitative data also largely support the link between running away from home and subsequently experiencing traumas, and specifically threats to physical integrity. Indeed, exposure to such trauma was reported for every Runaway woman, including in the context of intimate partner violence (perpetrated against them) and sex work, as depicted by the purple and red stars in the figures, respectively. As with the climates of abuse during childhood, women's exposure to trauma was also often best described as a 'climate' of trauma, instead of a single event or experience. Indeed, involvements in sex work and exposure to multiple complex traumas in adulthood were two key experiences that distinguished women from the Runaway and Non-Runaway group (also see "need for expansion" section for further elaboration). In addition, the majority of women ($n = 8$) reported severe drug and alcohol abuse that was initiated or exacerbated (e.g., to levels of abuse or dependence) after experiencing trauma. In tandem, these experiences promoted Runaway women's use of violence, with nine of the eleven women never having engaged in violence until they ran away from home, and all of the substance using women engaging in violence more frequently and/or severely subsequent to the initiation or escalation of their substance use.

In combination, women's qualitative interviews suggest that Path B from the quantitative phase is a fair descriptor of women's lived experiences, supporting a series of experiences that begin with climates of childhood abuse prompting women to run away. In turn, running away in many ways is a prompting even that opens the door to a climate of trauma, substance use, and perpetration of violence. This pathway, and the multi-layered complexities it involves, is

exemplified by one woman's account, included here in detail to story the sequence and interrelationships of the 'risk factors' from Path B. This woman begins by describing her childhood as one of the most difficult experiences of her life [age 30b, R]:

> Well, that was probably something but I think that…I think what affected me the most in my life is the relationship with my mom.  She's been absent from my life, like, in and out, never so…basically growing up without a mother. … She would leave us with drunk people, messed up people, you know, we pretty much did whatever we wanted. … [S]he had this boyfriend that used to beat her up all the time and he used to beat the crap out of us.  [sometimes] she'd decide to leave she'd say, "I'm going to get milk."  She wouldn't come back for three months… And then finally she pulled one of her, "I'll be right backs" and didn't come back at all.  So my dad had to take us. …

Though this woman is describing neglect and physical abuse during her early childhood, her account clarifies the chronic and pervasive nature of this abuse, compounded by being sexually abused by her uncle beginning when she was five years old and experiencing a very traumatic process related to her disclosure of the abuse years later:

> [Around the time I was 12] I met this social worker at this church …and  they were talking about sexual abuse….I wanted that part of my life to stop but I didn't really know how.  So I told on my uncle. [at first I]…pretended like it was my friend…[but] the social worker… knew that …it wasn't my friend [it was me].… I told on him.  And he committed suicide… You know and I blamed myself for that for a long time.  And I think subconsciously that affects me saying how I feel to people.

The last statement in particular exemplifies how this woman felt silenced early on, and is underscored when she later explains, "there's something inside me that thinks that someone's gonna die or something's gonna happen if I say how I feel". Because of these circumstances, and her subjective experience that talking was going to result in "something horrible happening again", she ran away form home before her thirteenth birthday:

> I ran away from home.  I quit school. Everything changed. [I went to different cities and eventually different states]…I started to hang out with kids that were older than me, trying to fit in some where… I remember being like fourteen and hanging out with these men that were like twenty seven, twenty eight years old and they would like have sex with me.  …and I would feel pressured, it wasn't really like I wanted to, but I wanted to…I wanted them to like me.…And then by sixteen I stole everything in my house and

bought a bus ticket [out of state] …and then I started… like hitchhiking around and stuff like that, so I did that for a lot of years and then I ended up in New York addicted to heroin.

As is evident from her account, the moment this woman ran away from home, her life changed in many drastic ways. Though she escaped one abusive climate, she became vulnerable to many other risky and, later, traumatic experiences that ultimately contributed to addiction and involvement in sex work. Entry into this later portion of her path was through a romantic partner she met while hitchhiking:

[This guy who became my boyfriend] asked me to move to New York with him cause that's where he was from and that's how I ended up in New York…I stayed with [him] for a couple years and alls we were doing was dope and fighting. I came back to Illinois a couple times to get clean, he was supposed to be getting clean while I was gone. I would come back, and he'd still be using, I'd pick up again. Eventually his parents found out that we were addicted to heroin. He blamed me, they kicked me out and because I had an addiction so bad I didn't want to go home and the only place I knew to get dope was in the street in New York, so I started living in the street and selling myself and I mean just completely, living in abandoned buildings…

This period of time was marked by both the perpetration and experience of intimate partner violence, combined with heavy substance use and, eventually, dependence. Once she was no longer in contact with her boyfriend, she began to exchange sex for drugs and money. She describes this as "horrible…one of the lowest parts of my life":

[This girl showed me that there was a ho stroll was what they called it, and I debated it for a while when I was sick one time (because of withdrawals), and I started doing it for like big amounts of money and I met this guy that I would only have to do it so often like I didn't have to do it everyday because I got enough money. But then my addiction, the more money I got the more dope money I needed and then eventually it was, I was doing it for nothing, you know what I mean, for just dope.

Though she attempted to quit using drugs on her own several times, it took more than five years for her to enter recovery. In the interim, she experienced multiple traumas, continued to try and fail at quitting substances, and used violence primarily when her safety was threatened:

When I was on the street, I've been raped a couple times…one time I was raped by this man who, he was someone who I had slept with for money before and he wanted to do anal sex with me, and I didn't want to do anal sex. And he took me down these stairs and he like told me that he wanted to do that instead of what we usually do and I was like "No, I don't want to do that" and he…violently made me…like I ended up, running up, like fighting him, finally getting away from him and we were [in] a really bad neighborhood right there, cause that's where I was at, at the time. And running across the bridge naked. And no one would help me, finally someone called the cops, but, you know, this other time I was sexually assaulted on top of this building. And this was messed up because this guy that did it to me, he, he held a gun to my head and finally like after a few minutes I had fought him [off]… and I was like pounding on peoples doors…[but] you could hear people locking their locks as I'm screaming and running down the stairs …no one opened their door.

When asked why she used substances, she responds that it was to "escape…to keep you oblivious from reality". Consistent with the direct association between substance use and violence in the quantitative Path B, this woman reports how many of her acts of violence have been "about drugs". However, her experience was not a linear one in which she became high, disinhibited, and violent. Rather, a key element involved frustrations with romantic partners who were also using substances. For her, these fights were still "about drugs", but they were integrally related to her relationships with drug-addicted boyfriends:

You know, I think that, a lot of times in [my relationship with my boyfriends] I would…it's like we would get fucked up and talk about getting clean, you know. And I would always want to do that, I would always want to get clean. And then, when we were in like the transition stage of stopping, like, he would always bring up, well, you know, we can do just a little bit of this, and tomorrow we'll stop, you know, and that type of stuff. And because he said it first I would always give in because I wanted to too, and all it took was someone else to say let's do it, you know, and then I would blame him, you know... [this one time], we'd been up for a long time and … I wanted to go home and I … go inside and [my boyfriend is] in there, he's got my money and [he's] waiting for this dope that's gonna show up in fifteen minutes and I fucking snapped and start beating him up with this broom and chasing him around the yard, "Fuck this shit already." Like I would always blame him even though I still wanted to continue, like I didn't want to in my mind, to continue to use, but I couldn't stop either, you know. But I wanted to blame him, because everything was so messed up and neither of us could stop….[and I was] tired of living like this.

In many ways, this woman's account "stories" the female-specific path from Phase I. Without specific prompting, this participant describes experiences childhood abuse, running away from home, experiencing adulthood trauma, and using substances as critical events in her life, which were related directly and indirectly to her use of violence. Though this participants' story is exemplary in that its telling allows one to easily see the presence of these experiences and how they are related to one another, it is not the only example to do so, as can be seen in Figure 6.

**Need for integration: Overlap across paths**

Though the qualitative data provide support for the distinct pathways of Runaway and Non-Runaway women, they also suggest that important elements of both pathways can coexist and coincide for the same woman. However, one distinction between the pathways supported by the quantitative findings is that Path A promotes violence by potentially disposing traits that promote early aggression and fighting as well as life patterns violence use, while Path B does so through running away and other status offenses. This distinction was often not meaningful for women. As one participant explains when asked what a central theme in her life has been [age 39, R]:

A:    Fight or flight.  That's my theme.  Bottom line.
Q:    And why do you say that?
A:    Because either I was going to fight to get through or I was going to flight to get away from it.  That was the bottom line.

For this woman, the distinction between being a "fighter" or a "runner" is not meaningful, and was echoed in different ways by participants. Indeed, examination of Figures 5 and 6 will demonstrate some of this overlap. Perhaps most noticeably, with regard to the Runaway women, all but three of the Runaway women engaged in fighting during their youth, five of whom reported aggression before age 15 (which would be captured by the conduct disorder symptom criteria), and identified themselves as "bad" or as "fighters". With regard to the Non-Runaway

women, six of the nine participants described having experienced a traumatic threat to physical integrity after the age of 15 and abusing substances during adulthood, which, for some was directly related to their use of violence. For instance, one participant reported a very positive childhood overall, never ran away from home, and did not engage in status offenses even though she engaged in several fights during her adolescence; experiences consistent with Path A. She recounts one fight from her youth [age 28a, NR]:

> Q:     …what was that fight over, do you remember?
> A:     A boy in school…we were fighting over some guy, and I was dating him and he cheated on me with her, and we had left school and I caught her at the, you know, I lived in [a city] which isn't far from here and we were at the park with a whole bunch of other high school kids.  And we got into a fight and they took us both to jail.  You know?  We started arguing over him…I don't remember who threw the first punch but we ended up fighting and they took us to jail…[and then] my mom came and got me.

However, the same woman's use of violence during her adult years is more consistent with Path B. She recalls a fight she had with her romantic partner, who had used violence against her several times before this incident, and with whom she lived with for a total of eight years:

> I had actually [had an allergic reaction] and I didn't know it at the time, I'm highly allergic to shellfish and [my boyfriend] knew that.  But I didn't know I had eaten shellfish.  I just started getting rashes on my body and swelling up in places but it kept going away….And the morning of my 21st birthday I woke up and my whole entire body had completely swollen up… It was so bad…I wasn't feeling well ….and he came out and said, …you need to call your mother.  He wouldn't even take me to the hospital. Knowing that I'm allergic to this and I was having problems breathing because my airways were closing up because of the swelling.  And I called my mom and she drove an hour and a half to come get me to take me to the emergency room.  I couldn't drive because my eyes were so swollen.  He would not take me and I go to the hospital…[Once] I came back to the house, he was mad at me because it was my 21st birthday and it gave him a reason to go out and drink [but I couldn't]… because I said I didn't feel good.  I just wanted to relax and rest, and we were standing up and he head butted me.  And just dropped me to the floor.  And you know at that time, once I got back up I was just so furious that I picked up a hammer that was laying on my table and I just threw it at him.  Not caring where it hit him or anything…. I probably could have killed him.  You know?  And I, I, that point I was like there's something wrong here.  And that's when the drugs really came into play, with me numbing the pain.

Interestingly, the consistency with Path B during this participant's adulthood is exemplified both by the indirect path between trauma (not being taken to the hospital when she could not breathe; being head-butted when she returned) and violence (throwing a hammer directly at her partner); as well as the direct path between trauma and substance use, underscored by her portrayal of this incident as a turning point through which drugs were used to "numb the pain".

The overlap of both pathways in a single woman's life is an important point to underscore in light of quantitative findings. Specifically, although no evidence in the path analysis suggests that Path A and Path B cannot co-exist within an individual woman's life, the fit criteria did suggest that Path B is the only gender moderated path. This distinction was often not reflected in the complex stories that women told and supports the notion that there are multiple and intersecting paths to violence. In this way, while some paths may be gender exclusive according to quantitative criteria (i.e., more relevant for women than men) the gender common paths remain salient in women's retelling of their violence perpetration and are not experienced or "lived" as distinct from the gender-specific paths.

**Need for elaboration: The role of gender-salient contexts**

In addition to supporting convergence with quantitative paths and suggesting that Paths A and B likely overlap in some women's lives, the qualitative analysis also suggests that the quantitative paths require elaboration. The need for elaboration of the existing paths is best exemplified by the finding that gender-salient contexts involving IPV and/or sex work exist *across* Runaway and Non-Runaway paths and were narrated as critical life experiences in women's accounts. As figures 5 and 6 suggest, all but one path constructed based on qualitative interviews included IPV and/or sex work. The centrality and salience of these gender-salient experiences are further underscored by the finding that 75% of women across paths ($n = 15$)

discussed IPV and/or sex work without specific prompting (i.e., in response to the following interview sections, which preceded questions about IPV and sex work: "difficult experiences"; "things causing you worry"; "important experiences" and "turning points"). While aspects of these experiences may be captured by some quantitative variables (e.g., traumatic experiences), their recurrence as core themes supports their importance as shaping experiences in women's lives. The next section elaborates on the nature and significance of gender-salient contexts.

<p style="text-align:center"><strong>What's Missing? Gender-Salient Contexts: IPV and Sex Work</strong></p>

To examine gender-salient contexts, two analysis components were employed. First, Figures 5 and 6 were compared with one another revealing the centrality and prominence of gender-salient contexts in women's stories. Two main conclusions were drawn: IPV and sex work were prevalent and severe across most cases and sex work is a more prominent experience for Runaway women. Second, open coding was used to examine the nature of IPV and sex work in women's lives with particular attention to how and why these experiences are gender-salient. Using both feminist theory as a guiding framework and coding details to ground these experiences in terms of their stated meaning and function in women's lives, a main finding was that these experiences were reflections of gender-based oppression, operationalized by the presence of power, subjugation, and sexual exploitation – as described next.

*Intimate Partner Violence in Violent Women's Lives*. Captured well by one woman's compelling description, her IPV was best described by the statement "he protected me from everyone but himself." This short statement encompasses two of the main components of an IPV relationship: the enactment of the gender role of man as protector (and therefore woman as someone in need of protection); and the protector's power over the woman he protects (and

presumably, his earned right to exert dominance over her because of his role as her protector). Every woman's IPV involved this dynamic of coercive control, though to varying degrees.

For instance, one woman describes how romantic relationships with men changed the course of her life, but specifies that it was the experience of IPV, often chronic, coercive, and severe, that left a lasting effect. One woman met her ex-husband when she was 16 years old and he was 32 (though he "lied about his age…said he was 27"). She describes a process of losing herself in a climate of abuse that continued for eight years, until he was incarcerated for drug charges [age 25, R]:

> Q: [T]ell me about an experience or an event that you think was very important in your life….Something that has really shaped your life up until now.
> A: I'd say my relationship with my ex husband. I had to deal with abuse and everything like that, then [the] drug problems [that ensued]…
> Q: And so how do you think that that relationship overall affected your life?
> A: Dramatically because just the abuse I had to go through, like I had no one to turn to. … he really stomped me down…I met him when I was about sixteen and then I actually left with him when I was about seventeen….I moved to a different town and then we moved to a different state….he kept me from my family, friends, wouldn't let me talk to nobody….Very abusive…The whole thing was traumatic….[one time] he had went to a jail for a little bit and I guess one of his friends had said that I was cheating on him while he was in jail and he literally beat the shit out of me like knocked me unconscious, was about to cut my throat but I ducked and he chopped off all my hair. I got like two fractured ribs from that incident. And my friend, I went to the hospital, I called her, I was in the hospital and she walked past my room. And I had to bring her back to my room because of how…She did not recognize me.

Other participants echo a similar pattern of domination. For one, feelings of sadness and worthlessness accompany her, even presently, because she describes "learning that the world is not predictable" [age 25b, R]:

> Q: And why do you say that your marriage is one of the events that has been most important in your life? How do you think it's affected you?
> A: I think he makes it hard to have motivation to do things for myself, because I'm always worried about him and what he feels and thinks. And it makes it harder for me, because you know I'm depressed a lot of the times because of the way he treats me. He cusses me out almost every day. Like one time a few days ago I left

to go to the gas station, I was gone an hour and a half…[when I returned home a few minutes late] he slapped me and pushed me down on the floor, and kicked me, and smashed my face in the cabinet. And, then he picked the broom up and started hitting me in the head with the broom, just because I was gone too long and he wanted a cigarette.

For another woman, IPV started a process in which she started to "lose herself" because of the abuse she experienced, in part because she perceived it as existing for its own sake – he was "abusive just to be abusive", as she puts it [age 26, R]:

Q: [O]ver the course of your life…tell me about an experience or an event that you think was very important?

A: Well, one thing, was being in an abusive relationship with my son's father, …I dealt with that abuse for like two and a half, maybe three years…and I mean he just was abusive just to be abusive. I mean there wasn't even a reason to be. I guess it was all a part of, you know, being controlling and having his way or whatever, yet he felt that, you know, he had to beat on any woman, it wasn't just me, just any woman he ever came in contact with. … [and it was] the most difficult thing that I have ever had to go through …because like I just thought I was never going to find my way out of it, I really did. But, going on in life, period, without any education, like not having any degrees, high school diploma and stuff like that, not knowing what's going to happen on a day to day basis, like that is the most difficult thing in the world to me ... I stopped hanging out with my friends…Started staying at home and all this stuff or whatever. All this abuse just…abuse, abuse, abuse.

Q: Just started?

A: Just out of nowhere. Just…and I'm like I don't even understand. And there was one particular occasion where [one of his guy friends prank called me on my cell phone and my boyfriend found out about it]…So [my boyfriend] comes home…and he's all mad or whatever. I hear him go inside the house…[to] this little storage area … and the next thing you know he comes back out and I'm like, "Okay. What's going on?" And he just automatically comes in. And he's fighting. Before he asks any question I'm on the ground…he hit me with a bat across my arm and across my leg…all this leg and this whole arm. It was just black and blue.

Thus, IPV was experienced as severe, often chronic, and was pervasive in women's narrative accounts. These three examples demonstrate the classic hallmarks of IPV: a repeated pattern of inflicting threat, including physical injury, resulting in loss of identity, isolation, and consistent threats to one's safety.

*Sex Work in Violent Women's Lives.* In addition to experiencing IPV as a life-changing

event, several women also described how being sex workers changed the course of their lives.

Though not purposively selected to have engaged in sex work, it is striking that, in this sample of

women who use violence, 40% worked in the sex industry and understood this experience as

important, particularly when they were involved in relationships with pimps. Moreover, all

women reporting sex work described it as a "way they made money or got drugs" for a period in

their lives, ranging from a few months to over a decade. No one reported only a single act of sex

work. Sex work was particularly pronounced for Runaway women, with 55% ($n = 6$) reporting

involvement in the sex industry, compared with 22% ($n = 2$) of Non-Runaway Women. As one

participant recalls [age 39, R]:

> A: There's this one guy [a pimp] and at the time I was still using drugs and I was homeless and I got up with him and he was selling drugs and he had all of us selling drugs for him… I can remember… me thinking that I was going to die one night. I think I had misplaced like $60 worth of drugs and one of the other workers had just not, didn't have their money right, and I got in the shower, got out to get dressed, I was about to go out [to engage in sex work], and next thing I know I'm being hit with a baseball bat…So I fought for my life that night and when it was all over with I can remember him choking me out and choking me back. He choked me for long enough where I went out and came back to…I ran after that. I ran and I had to run for months. I really did. I had to run…from him because he was paying people to tell them where I was and he didn't want to let go….[during that time]… I [continued to] walk the streets and all that.
> Q: And what, this guy was thinking that you had taken from him? Is that why…
> A: No, actually it was just to be able to control me. I was like his trophy…[he would always imply] … 'I got to control this. This is my house. You guys are my workers. This is my bitch'... [for me] It was just like somewhere for me to lay my head but, at the same time, I had an advantage of …being up under a man, we'd be watching movies, whatever. So, but I never went into that thinking that it was going to be anything. I didn't want it actually to be anything. Just what it was. Let's get by.

As this subsection illustrates, gender-salient contexts involved an oppressive gender dynamic

characterized by the physical and social domination of women. Further, these contexts were

pervasive and described as critical experiences in women's lives. In the next section, the

influence of these gender-salient contexts on women's use of violence in particular will be examined.

**Expansion and Divergence: Gender as an organizer of interpersonal contexts**

In the preceding section, quantitative paths were elaborated on by highlighting the centrality of romantic partnerships and gender-salient contexts of IPV and sex work in women's lives. In this section, the relationship of these experiences to women's use of violence is first described, and then linked in particular to the subjugated roles that women inherit in interpersonal spaces. Analytic steps involved examination of Figures 5 and 6 and coding that focused on gender at the socio-structural level as a core concept, including through use of "micro codes" (e.g., segments of quotes) that evidenced and grounded the core concept in women's accounts (Charmaz, 2005). Descriptive codes from qualitative interviews suggest that 100% of Runaway and Non-Runaway women reported using violence against an intimate partner.

Figures 5 and 6 show this association between gender-salient experiences and violence perpetration in at least two ways. First, IPV and sex work preceded the use of violence for every woman who reported these experiences. That is, violence followed IPV and sex work for 19 of 20 women. Second, and related to this point, the figures also suggest that these gender-salient experiences are relevant in explaining the re-emergence of violence perpetration for women whose pathways show gaps in violence perpetration. Specifically, eight of the nine Non-Runaway and seven of the eleven Runaway women show a period of desistance from violence *and* show a re-emergence of violence perpetration following IPV or sex work (in some cases, years later). Descriptively, these two observations may implicate IPV and sex work in the perpetration and maintenance of women's use of violence.

Analysis that focused on gender at the socio-structural level suggests that women's violence arises out of a context of subjugation and aims to better-understand how and why subjugated roles may promote women's use of violence (e.g., by examining the social meaning and interpersonal function of women's violence). Findings suggest that women's violence often occurs during moments when women are primed with their subjugated roles, particularly in relation to male romantic partners. This context of violence is examined in the first subsection. However, their violence is not limited to male partners and a similar dynamic can promote women's use of violence against other women. An emergent concept from this analysis is that women's use of violence can also perform the social function of *instantiating* oppressive gender norms. This context of violence is examined in the second subsection.

**Women's Subjugation in Intimate, Heterosexual Relationships**

One of the core themes in women's narratives was that many of the violent intimate relationships women experienced were characterized by contexts of male domination and control and that – it was during moments of enacted privilege/domination and/or affirmed subjugation – that women often used violence. One defining aspect of subjugation involves *inequality in power bases*, and is highlighted by the following example [39b, R]:

> Yea, I remember one time my husband had did something to me [cheated on me]. And this was in the beginning of our relationship. We hadn't been married a good four months yet and he did something and I popped him [punched him in the face] and he looked at me and said 'you got to be crazy… ...And he went to grab at me but ...I tried to dodge him [and]... I remember ending up back up against the shower wall and him saying, 'See, I don't even have to touch you. You was wrong and look what happened'.

This participant construes her own punch, an act of violence, as being less powerful than her partner's (un)spoken threat. Moreover, she conveys that punching her partner was an act of social communication performed in response to her partner's infidelity. Though this does not

signify that her act was any less violent, it does provide a context of meaning within which her act can be understood: her partner, a man she married, had a sexual relationship outside of their marriage, instantiating a norm around male sexual infidelity or "conquest" (Miller, 2008). In turn, she was hurt and felt helpless in response to his dismissive tone and communicated this frustration through a physical act of violence. When asked directly about what led up to her use of violence, she recalls:

> [H]e said [something to] hurt my feelings….really, really bad. … and it was like he didn't care. He wasn't, he had no regard to the fact at how I was feeling about it.

Importantly, there was another communication, on his part, that works to reaffirm her subjugation and underscore his power: "I don't even have to touch you". This statement occurs during the moment that this participant's partner communicates his victory, which he procured without a need to use severe force. In other words, he was able control the situation without using physical violence and successfully conveyed this message to his wife. On the other hand, she did use violence but was not victorious in getting what she wanted ("to be taken seriously") or having her message heard ("I was hurt [by you cheating]"). This difference of influence between the participant and her partner can be understood in reference to a relative difference in social (and physical) power; her partner is enacting male privilege that enables him, with or without intention, to exercise some degree of control over the participant's actions and thoughts. Her actions have been restricted (without the use of violence), both literally – she is "pushed up against…a wall" –and figuratively – she is not welcome to express her dissent regarding his actions and her protest is met with a dismissive tone, rendering it unimportant.

Indeed, this woman's partner is placed in a position from which he can *set the terms, b*est communicated by her construal of his account: "[y]ou was wrong and look what happened". In this example, what is just as relevant as what is being defined as wrong is what is **not** being

defined as wrong, and **by whom**. Simply put, her partner defines the action that is "wrong" (her dissent and use of violence) and the "wrongdoer" (her and her alone). Absent from his definition of "wrong" or "wrongdoer" were his own acts of infidelity and later dismissiveness regarding her pain. This was despite the communication on the part of the participant that it was exactly these acts of infidelity and dismissiveness that were "wrong" in her subjective experience. However, his experience is privileged and her wrongdoing is met with a consequence (i.e., "look what happened").

Thus, these dynamics of male privilege and female subjugation can be understood in reference to norms that exist outside this relationship and sanctify women's lower social power. However, this power differential is instantiated within the relationship, exists in the dynamic between this couple, and is a part of the context in which her violence arises.

In addition – and in combination with – differences in power bases, the experience of subjugation can also arise out of being or feeling dominated, controlled, or threatened in interpersonal spaces, in response to which women described using violence. As one woman puts it bluntly after being asked why she uses violence: "feeling threatened…[and] my safety." Unsurprisingly, some acts of violence in response to feeling threatened parallel classic examples of self-defense, in which a generally non-violent woman is pushed to violence in an effort to defend her life [age 23, NR]:

> I've never hit a guy.  I mean I hit [my husband] when he was choking me obviously, but I've never assaulted any [other guy].

Another woman describes "being controlled" by her partner for years, and though the following use of violence was not her first, it was her last and most severe violent act [age 33, NR]:

> Q:     [T]ell me about what made you use violence.
> A:     Because he hit me …and he tried to stab me….it was in my house and he was drinking and he grabbed the knife, I don't know what he was upset about and tried

to stab me. But somehow he dropped the knife and I picked it up, and I stabbed a few times… he just snapped out, I don't know….[and] I wasn't trying to think about why, just trying to keep him from trying to stab me. [So] I picked [the knife] up. And I stabbed him.

Q:      And you stabbed him. And what happened next?

A:      He left, and finally walked to the hospital and he didn't make it, he passed out in the park. I had punctured one of his lungs… He was in the hospital for a while but, after that he never, after that….It was over.

Q:      So that's what it took for that relationship to end?

A:      Yes. And I knew if he did that it was not going to change.

In this example, a severe act of violence on the part of the woman arose out of a need to defend herself from the same act – "it was either stab or be stabbed", as this woman later put it. Her account that this was an act of self-defense was later legitimized by law enforcement, who did not charge her for a violent offense for this act. However, others' narratives complicate the meaning of self-defense. For instance, another woman felt emotionally – but not physically – threatened by her partner and used violence in order to communicate her frustration. Though she describes that her boyfriend "got in her face", she was not afraid for her safety and had reported earlier in the interview that this partner had never been violent with her in the past. Instead, she wanted "space" and "time" to process some feelings she was having about the relationship. She recalls [age 20, NR]:

A:      He [my boyfriend] was in my room and I wanted him to leave because I was upset. I wanted my time by myself and he wasn't having that and didn't want to leave me alone and I kept telling him, you know, you need to get out of my room. Get out of my face, respect me, respect my personal space. I don't need to be telling you to do this. Don't make me get my parents, don't make a scene out of this…And I, I kept telling him dude, either you leave or I'm going to fucking snap and he got in my face and he was like you're not going to do nothing. I slapped him very hard. He wasn't, he wasn't leaving. I started to get physically violent because I was frustrated. This is my room, in my house and who the fuck are you not to, I told you to leave. Just get out. What is wrong with you? And my mom came in and all she saw me beating the crap out of him while he's trying to restrain me against beating him up. And I'm screaming at him to get out. And she doesn't understand that he's in the wrong so she starts agreeing with him and further controlling me and trying to, to get me to calm down. And then my stepdad comes in and sees it all and I ask him to [help]. And he just turns around

and walks away, doesn't do shit about it…. I get them off me, and I try to go jump out the window and they're all, it's the first floor so it's not like I'm jumping out the window. The ground is right there, I just want to, leave me alone. And my boyfriend ends up coming outside and freaking I started biting him and beating the crap out of him and picking up rocks and hitting him the head. I gave him, I busted his entire face, I gave him black eyes…bite marks like everywhere. You should have just left me alone.

Q: Mm-hmm. Okay. What did, what message did you want to communicate?

A: Leave me alone. I asked you to get away from me, you should respect that and get away from me...He didn't want me to go nowhere. He was trying to control me to keep me there. He wanted me to calm down. I guess, I guess he had a fear that I was so upset and when he was gone I would decide that I didn't want to be with him no more. I might break up with him. And I guess he didn't want me to be alone to be able to make that decision. So he tried to like smother me I guess and it didn't work… I don't do well being controlled.

This woman makes clear that she felt "controlled" by her boyfriend, and to some degree her mother (for "agreeing with him") and her stepfather (for not "do[ing] shit"). Her account of violence also suggests that she responded to this context of control by using violence in a way that was largely out of control. But what was being controlled, and by whom? This account suggests that it was the participant's rights to her physical space (her room) and her ideas and thoughts (to think about breaking up with her boyfriend) that were being challenged in an effort to control them. In turn, her request to be left alone was met with a silent opposition and a much more "in control" response on the part of her boyfriend, who did not leave when asked, followed her wherever she went, and attempted to restrain her physically. The participant's violence in response to each of these gestures can be interpreted as a physical act of protest and attempt to have her requests – to be alone, to think, to possibly break up – be taken seriously.

Moreover, though this participant and her boyfriend both attempt to exert influence in the situation, both are attempting to ultimately influence *her* ideas and thoughts. The conflict arises when his right to exert control over her ideas is contested, exemplified by the rhetorical question she poses as a protest to his entitlement: "who the fuck are you?" Arguably, his unwillingness to

defer control can be located in an ecological context that legitimizes his entitlement and influence over her thoughts and ideas and thereby allows for her "rights" to space and desire for respect to be challenged and constricted in a way that affirms his male privilege and her subjugated role in the relationship. Thus, women's experiences of subjugation are highly linked with their use of violence, particularly when women perceive no other (or less effective) alternatives to violence.

**Women's Instantiation of Oppressive Gender Norms through Violence Outside of Intimate Relationships**

Women's violence in the context of social subjugation was not limited to their fights with romantic partners. Indeed, descriptive codes suggest that 91% ($n = 10$) and 67% ($n = 6$) of Runaway and Non-Runaway women report using violence against women (and girls when they were younger). Often these fights occurred because of an actual or perceived threat that the "other woman" would have a sexual relationship with participant's romantic partners; with 82% ($n = 9$) and 78% ($n = 7$) of Runaway and Non-Runaway women reporting use of violence in relation to actual or perceived infidelity of their partner. Though women also reported using violence in other contexts (e.g., toward family members, $n = 4$, 20%; and in group fights unrelated to intimate partners or infidelity, $n = 8$, 40%), this section focuses on violence against other women and in response to actual or perceived infidelity. This analytic decision was made because this violence was more frequent and described as more salient in women's accounts.

In other cases, the threat to participant's relationships was less direct, but women sometimes instigated violence to make a point: women should not be with men who are taken. In these situations, the other women are held accountable, sometimes more so than the relationship-involved men with whom they had a sexual relationship. Indeed, women's violence also arose in

moments of perceived deviation of the stereotypical female gender role, such that women

became enforcers of stereotypical female gender roles (i.e., making sure women are acting like

"a good female").

These beliefs were captured by statements such as "It didn't matter to me, it was all her

fault no matter what" – said about the woman with whom her romantic partner cheated. The

implication is that the other woman should have known better than to "mess with a taken man",

and is thus held accountable. What is absent is a description of what, if anything, the

participant's boyfriend "should have known" and whether he is held to the same standard of

fidelity. Another participant speaks to this double standard, quite clearly [age 20, NR]:

> I mean I can't stop him and I can't do nothing about him, but she was a female, [you]
> should have some respect in yourself.  Obviously you know this is not the guy's bed.  It's
> another girl's bed, what the hell are you doing?

This participant is speaking about a young woman with whom her boyfriend had a sexual

relationship. She describes the infidelity in greater detail, and how it led to a violent fight

between herself and the other young woman several months after the participant and her

boyfriend ended their relationship:

> He had sex with another girl on my bed, videotaped it and downloaded it onto my
> parent's computer.  I found the video, of course it was like 6 months after we had broken
> up… And I knew the girl, she was a skanky ho, she hung out at the skate park all the
> time…. [so I went to the park]  … I was hiding behind a bush, waiting for her to show up.
> And she showed up and I beat the crap out of her….this is what you deserve, so here you
> go…. I mean I don't, I don't have nothing to say to her.  I have anger to take out on her,
> against her.  So that's what I did.

When asked whether she pursued her ex-boyfriend for a fight after finding the video, the

participant replied "no" and repeated that "I can't do nothing about him". In many ways, this

example highlights how this woman's loss (of her relationship, her perception that any man can

be faithful to her, and her identity as someone who can 'keep a man') was her ex-boyfriends gain

(in status as a 'player' among his friends, as a responsible party that was not ever held accountable for his actions).

Perhaps most striking is the finding that some participants' willingness to fight other women extended beyond interpersonal circles in which the "other/promiscuous" women posed a direct threat to participants' relationships. In these scenarios, participants became social enforcers in ways that may promote the binds of gender-based oppression. This is best-exemplified in one woman's account in which she describes getting into a serious fight with a female friend of hers because her friend defended a woman who the participant perceived as a threat to women in general (i.e., in their local community) [age 26, R]:

> I got into a fight with [my friend]... [see] I didn't like this [other girl] because she was, like, the town ho. And she was sleeping around with everybody's men. So I didn't like her. And I felt like, you know, I don't want [the town ho] to take advantage of [my friend or her man]...so I'm saying all these [negative] things about this girl [to my friend]...and...[the next thing I know I] get to fighting [with my friend]. And I just be mad at the world or whatever so I told her, you know what, if she wanna fight, let's fight. And she got...in my face. And so I just punched her [and we got to fighting]....Like we shouldn't even be fighting... we were real close. [but]…[my friend should not have been] hanging out with this girl that sleeps with everybody's men.

This participant's violence seems to serve the social function of instantiating oppressive gender-based binds, particularly those relating to the sexual double standard that women who have multiple partners are judged much more harshly than men. This participant, however, is also subject to the same double standard that can be viewed in terms of a double bind: to be sexually loyal but accept a social reality in which men do not have to be. The added layer, or the third bind, is that this participant is not only enacting the double bind, but also has a role in enforcing it through using violence against her friend for defending another woman perceived to be living outside acceptable social limits of appropriate femininity. When asked why she used violence against her friend, the participant states:

> [My friend]… was just… a real cool girl…and I didn't want her to get hurt like that by this girl (i.e., having her friend's boyfriend cheat on her with this other girl).

Though it may seem paradoxical to use violence against your friend to keep her from getting hurt, the participant's justification ultimately betrays that the need to protect against promiscuous women trumps the importance of maintaining a close friendship; and that the hurt caused by the infidelity of a male partner is both inevitable and more painful relative to experiencing physical violence. These cases exemplify the ways in which women's use of violence against other women is characterized by a gendered dynamic. Two aspects of this gendered dynamic involve that other women are held accountable for acts of the actual or perceived infidelity of participants' partners, and that women may actually play a role in reinforcing gendered binds (e.g., double standards around sexual promiscuity).

**Divergence**

The core theme around the promotion of women's violence in contexts that reaffirmed their subjugation and/or male privilege emerged across participants, regardless of their particular pathway to violence. Though this finding does not negate the quantitative result suggesting that one path (Path B) is female-specific, whereas another path (Path A) is not, it does bring the interpretation around gender-specificity into question. That is, the qualitative analysis underscores the ecological meaning of gender and suggests that gender norms can work to organize interpersonal contexts to privilege male power in ways that affect all women by virtue of their (less powerful) social status as women. Thus, an act of violence instigated in this context can still be construed as "gendered" regardless of whether or not it follows the pathway to violence that was evidenced to be gender-specific in quantitative analyses (i.e., Path B).

CHAPTER 6

DISCUSSION

There are three major findings of this study with two important implications. First, a

central aim of this study was to examine the extent to which women's pathways to violence are

similar or different with respect to that of men's. Quantitative results from Phase I find that

women share both a gender-common and female-specific pathway to violence, suggesting that

the etiological risk factors that promote violence – and the interrelationships among them –are in

part different for women compared to men. Qualitative results support triangulation and

complement the quantitative path analysis by supporting convergence of results and illustrating

evidence for the sequence of risk factors advanced in the quantitative model.

Second, beyond corroboration, mixed-methods findings also suggested a need for

elaboration on the paths to violence evidenced by both qualitative and quantitative findings. In

particular, the prominence of romantic partnerships and the violence that resulted both directly

and indirectly from these partnerships was a central narrative in women's own accounts of the

circumstances that promoted their use of violence. Further, the role of IPV and sex work was

pronounced in qualitative interviews. These contexts are interpreted as being gender-salient and

are also implicated in women's use of violence.

Third, an examination of the social context in which women's violence emerges

underscores the centrality of gender as a principle of social organization and argues that

women's violence is a qualitatively different phenomenon than that of men's, even if it can be

(in part) quantitatively predicted by the same factors. This set of findings is in keeping with a

mixed methods purpose of initiation and problematizes the notion that paths to violence can be

'neutral' regarding gender. It suggests that gender organizes interpersonal spaces and opportunity

structures in a systematic way that shapes the meaning of violence and highlights the gendered nature of *all* of women's (and men's) violence, regardless of what etiological factors are described as prominent. This interpretive frame also troubles the reduction of violence to an act and suggests that gender is an important part of the context in which this act emerges. In this study, a unifying way in which women's violence was gendered was through the bounding of women's opportunities without a liberating choice.

The implications of these findings for research are to complicate the construct of violence and expand the ways in which the construct of gender shapes our interpretations of it. Understanding violence as an act that is instigated by men and women – that is, a universal and perhaps fundamentally human act – is not unsupported by the results of this study. Indeed, quantitative and mixed methods results around complementarity support this notion and suggest that certain risk factors make it more likely for women to engage in an act of violence. However, this study also problematizes this view by advancing results that suggest women's violence is more than an isolated act, rather a dynamic that needs to be understood through its social meaning, purpose, and interpersonal and socio-structural function. Thus, gender organizes social behavior by imbuing a range of opportunity, power, and choice for women in ways that can serve to promote violence.

## Pathways to Women's Violence

Studied in a holistic path modeling analysis, results suggest there are at least two pathways to women's violence initially examined in Phase I quantitatively, which are also supported empirically by the qualitative data from Phase II. These results are most consistent with the mixed methods purpose of triangulation, which finds correspondence of results from different methods. A major finding of the quantitative data is that there is more than one path to

women's violence. These data suggest that some acts of violence are promoted through similar

risk factors as that of men's violence, such as aggressive traits that emerge in youth, while some

acts are promoted via female specific risk factors. One implication of this finding is that it

troubles the dichotomy that women (and their violence) are *either* like men (and their violence)

or different from men; a reductive fallacy that has been prominent in the discourse around gender

differences (e.g., see multiple threshold model, Rhee & Waldman, 2002).

**Gender-Common Paths to Violence**

The first path, described as 'gender common', largely provides support for the extant

literature on violence and antisocial behavior. Risk factors included in this path have been

examined previously, particularly in the quantitative literature, in which researchers have long-

contended that there are relationships between individual difference variables (e.g., specific

genes), childhood abuse, adolescent aggression, and adulthood violence (e.g., Moffitt, 2001).

However, there are some noteworthy aspects of these results. First, this study models the

interplay between genes and environment and finds that they are associated with adolescent

aggression and, indirectly via this path, with adulthood violence. Notably, this path was

predictive of violence for both men and women and explained about 21% and 31% of the

variance in violence for men and women, respectively. In addition, though the path analysis

results suggest that the variables in this path are more highly interrelated for women than for

men, the measurement model suggests that this gender-common path alone is an excellent fit for

both men and women.

Second, quantitative results suggest that it is the MAO-A genotype, and not 5HTT, which

combined with child maltreatment, promotes risk for women but not men. This finding is

supported by some, but not all, of the current literature. Specifically, MAO-A has been

previously linked to violence and potential violence-promoting experiences such as sensation

seeking (Belsky & Pluess, 2009) and psychopathic tendencies that include callousness and

unemotionality in adults (Sadeh et al., 2012) and youth (Sadeh et al., 2011). Some have

suggested that MAO-A is associated with violence that is more agentic, deliberate, and at least

partially initiated rather than fully provoked (e.g., Meyer-Lindenberg et al., 2006). This is

distinct from previous literature that finds the low activity variant is associated with men's

antisocial behavior (Caspi et al., 2002; Foley et al., 2004; Kim-Cohen et al., 2006; Nilsson et al.,

2007; Taylor & Kim-Cohen, 2007; Widom & Brzustowicz, 2006) but consistent with research on

women and girls specifically, which suggests the high activity variant is associated with violence

and aggression (Gokturk et al., 2008; Kinnally et al., 2009; Nilsson et al., 2007; Sjoberg et al.,

2007; Wakschlag et al., 2009). Moreover, the sex-linked nature of MAO-A also renders this

variable, by definition, gender-specific in that operates at a basic level in ways that are different

for men and women. Though specific mechanisms regarding the impact of the high activity

variant are unknown (e.g., Belsky & Pleuss, 2009), research suggests that the MAO-A enzyme

selectively metabolizes serotonin, norepinephrine, and dopamine neurotransmitters involved in

brain functions associated with stress regulation. Thus, MAO-A may be one individual

difference variable that is involved in the development of sensitivity to stress (Sabol et al., 1998;

Shih et al., 1999) and is uniquely related to adolescent aggression and adulthood violence.

Interestingly, the same association was not found for 5HTT (see below). In the current study,

within-gender analysis suggest that the interplay between abuse and MAO-A was associated with

women's childhood agression and later violence, whereas this was not the case for men. Rather,

for men, the association between childhood agreession and abuse was similar across MAO-A

allele groups, suggesting that the environment of abuse alone was sufficient to infuence men's

violence (see Figure 3).

Third, qualitative results provide triangulation and complement this gender-common

path. Particularly, the interviews with women selected as being in the 'Non-Runaway' group

support this path. To paraphrase women's accounts in support of this path "I had a messed up

childhood (e.g., abuse)… I learned how to fight and I've always been a fighter (e.g., childhood

aggression)… and I'm still going to fight for what I need or want (e.g., current violence)".

Because gender was not supported as a moderator for this path, one might conclude that this is a

'gender invariant' path predictive of violence for both men and women. This conclusion is

supported by one of the most established areas of research on antisocial behavior; trajectory

models (e.g., Moffitt et al., 2001). Though the trajectory model literature examines the course of

antisocial behavior and does not focus as heavily on interrelationships among risk factors, it is

relevant for the discussion around gender differences in antisocial behavior and is indeed a major

scholarly space within which much of this gender-related discourse has occurred.

Specifically, an extensive body of research by Moffitt and colleagues has identified

antisocial trajectories that differentiate individuals who exhibit antisocial behavior consistently

over the lifespan (the life-course-persistent trajectory), those who start acting antisocially during

their teenage years (the adolescent-onset trajectory), and those who only engage in antisocial

behavior in childhood (the childhood-limited trajectory) (Moffitt, 1993; Moffitt & Caspi, 2001;

Moffitt, Caspi, Dickman, Silva, & Stanton, 1996; Moffitt, Caspi, Harrington, & Milne, 2002;

Odgers et al., 2008). Although these trajectories were validated on samples composed mostly of

boys, continued investigation of these and related trajectories suggest that girls and women

exhibit similar patterns of engagement and desistance in antisocial behavior (Bongers, Koot, van

derEnde, & Verhulst, 2004; Fergusson et al., 2008; Moffitt, 1993; Moffitt & Caspi, 2001; Odgers et al., 2008). Longitudinal research on these patterns of engagement in and desistance from antisocial behavior indicate they have similar predictive validity for psychopathology and violence outcomes in girls and boys (Odgers et al., 2008), an assertion consistent with findings from the current study. The major gender difference described in this body of work is that fewer girls demonstrate child-onset trajectories (7.5% reported in Odgers et al., 2008), while a greater proportion engage in adolescent-onset trajectories (17% as reported in Odgers et al., 2008), with this gender gap narrowing around age 15 (see Odgers et al., 2008). These findings are consistent with the gender-common path modeled in the current study and suggest that men and women follow similar trajectories toward antisocial behavior, particularly in adulthood.

**Female-Specific Paths to Violence**

In addition to the gender-common path, the current study is among the first to holistically examine a female specific path based on the extant literature and a) support the a priori hypothesis that this model is a better fit for women's violence as compared to men's, b) analyze hypothesized associations among risk factors, and c) unify research and theory across previously disparate literatures (including by testing key risk factors proposed in the model by Javdani, Sadeh, & Verona, 2011a and b). Specifically, this model's inclusion of status offenses, and particularly running away, is consistent with dozens of theoretical and empirical studies from criminology and sociology. A central topic of discourse in this literature has been around highlighting and understanding the descriptive finding that girls who engage in violence are disproportionately more likely to commit status offenses and report abuse histories compared to other girls and their male counterparts (e.g., Snyder & Sickmund, 2006). Chesney-Lind and her colleagues' (2004) body of work has underscored this point and, through mostly qualitative and

descriptive quantitative evidence, has asserted that running away occurs in response to abuse and places girls at social risk incurred by living life on the streets (Acoca, 1999; Katz, 2000; Siegel & Williams, 2003). These assertions are also consistent with Widom and colleagues' prospective studies evidencing a stronger association for childhood abuse and running away for girls compared with boys (e.g., Siegel & Williams, 2003; Widom, 1989). Similarly, the childhood environment of sexual abuse has consistently been identified as a risk factor for girls' antisocial behavior, with over 20 studies demonstrating the association between physical and sexual abuse and girls' aggression cross-sectionally (e.g., Bergen et al., 2004) and prospectively (e.g., Hahm et al., 2010) in population-based and high-risk samples.

In the current study, these literatures on status offenses and sexual abuse were integrated with a separate literature on gene by environment interplay. This examination centered around the extent to which the association found between 5HTT and childhood abuse could also predict the outcome of status offenses, given their relevance for girls. In particular, the 5HTT genotype, and the short allele in particular, accords risk for behavioral (e.g., impulsivity; Beitchman et al., 2006) and emotional (e.g., negative affect; Ni et al., 2006) dysregulation. Findings from the current study suggest that the individual risk associated with carrying greater copies of the short allele, which may mark tendencies to be behaviorally and emotionally dysregulated, promote engaging in low level disruptive behaviors that include running away from home, curfew violations, and school truancy (i.e., status offenses) when combined with abusive childhood environments. This makes conceptual sense given that individual differences exist in, for instance, tendencies to run away (or not) from an abusive home, and 5HTT may be one marker of this individual variability. This is consistent with primate studies that suggest carriers of the short allele are more likely to migrate to new locations even if they incurred risks in doing so and

highlights the relative ecological advantages that might explain the presence of this individual variability in humans today (Chakraborty et al., 2010; Suomi, 2006). Thus, the first part of the female specific path from Phase I combines the gene by environment literature with a body of work from feminist criminology and sociology and advances a model that integrates individual level vulnerability (5HTT), risky family factors (abuse), and the types of conduct disorder symptomology that girls are likely to display in early adolescence (e.g., running away). One implication of this combination is to bring an individual difference framework to literatures that often overlook them (e.g, criminology) while not negating this literature's conceptualization that committing status offenses is not only an end to itself but also a means of exposing girls to other forms of social risk, including traumatic experiences.

Indeed, it is at this point in the path – from status offenses and beyond – that the mixing of methods contributes a new and more nuanced understanding by seeking to answer the question of why status offenses are so risky for engagement in violence. The answer suggested by the present study serves to challenge literature and paradigm-specific assumptions by suggesting that running away is both an individual difference risk factor, promoted by the interplay of 5HTT and childhood abuse, as well as a social risk factor that is associated with experiencing trauma and engaging in substance use and a host of dynamic life events that likely compound individual vulnerabilities and constrain opportunities.

Particularly in the point beyond status offenses in this pathway, gender is a key construct conceptualized at both individual and social levels. First, and perhaps most consistent with its conceptualization as an individual difference variable, the prevalence of trauma, and the association between trauma and substance abuse is pronounced for women, particularly those who might be more vulnerable to impulsive tendencies through carrying greater copies of the

5HTT short allele. These findings are consistent with several literatures. For instance, research and theory on Trauma Systems Therapy in the clinical psychology literature suggest that the experience of traumatic events that trigger danger to physical integrity (e.g., rape, assault) affects learning and associative networks in complex ways (e.g., Gueze, Vermetten, Ruf, de Kloet & Westenberg, 2008). While this effect can occur for both men and women, recent research has suggested pronounced difficulties in coping with traumatic stress among women in particular and linked these coping difficulties with use of substances in women moreso than men (Olff, Langeland, Draijer, & Gersons, 2007). Moreover, exposure to traumatic events also promotes impulsivity and risk taking, with some studies suggesting this link to be stronger in adolescent girls than in boys (e.g., Horowitz et al., 1995; Javdani, Abdul-Adil, Suarez, and Nichols, 2012). Conceptualized as an extreme "invalidating environment", exposure to trauma can also promote emotional dysregulation and result in a pattern of maladaptive behavior with violence as one probable outcome (e.g., Linehan, 1993). These findings support both the direct link between trauma and substance use as well as the indirect association from trauma to violence via substance use. Thus, experiencing traumatic events, particularly for women with impulsive tendencies, may create and sustain learning networks that promote maladaptive coping through substance use and violence.

Further, and perhaps most consistent with gender as a variable of social organization, the nature of women's traumatic experiences also underscores their marginalization and high potential to be victimized when exposed to opportunistic environments. This dynamic was highlighted particularly by the juxtaposition of qualitative interviews on the quantitative path in a way that demonstrated that, once on the Runaway path, girls' choices were systematically constrained regardless of their individual differences in effective decision-making. In addition to

being a strikingly common experience across interviewees, the nature of women's' trauma was also gendered. Women reported complex trauma that often occurred in the context of IPV and engagement in sex work. These experiences have been conceptualized as part of a system of women's oppression (e.g., Lorber, 1994) and represent the types of traumas most often associated with maladaptive outcomes – complex, chronic, and physically violating (Olff et al., 2007). This notion is also consistent with anthropological data that describes the high prevalence of opportunistic environments that systematically impose upon vulnerable girls and women and employ tactics to commodify them as property (e.g., through the sex trade) and work to systematically diminish their opportunities (e.g., see Lloyd, 2005).

### What's Missing? Gender Salient Contexts

Consistent with the mixed methods purpose of expansion, qualitative interviews help elaborate on the findings from the quantitative path analysis by suggesting that being in a romantic relationship, especially one in which the male partner also has violent tendencies, promotes women's use of violence across paths. Indeed romantic partnerships played a prominent role in accounts of Runaway and Non-Runaway women and their use of violence that was consistent with both the gender-common and female-specific paths. This is consistent with descriptive findings suggesting that women's violence often occurs in the context of, or in relation to, romantic partnerships (e.g., Chesney-Lind & Shelden, 2004). Though quantitative models did not include gender-salient contexts (IPV or sex work), reflecting a potential limitation in the models proposed, the qualitative findings nonetheless served the purpose of describing the salience and centrality of these gendered contexts.

Evidence that romantic partners may exacerbate women's antisocial trajectories necessitates a reconsideration of the role that relationships may have for women, and for women

at high risk for antisocial behavior in particular (Zahn, 2010). For instance, Hirschi's (1969) influential social bonding theory posits that greater connections to conventional social institutions (e.g., marriage) are inversely related to engagement in violence and antisocial acts. However, this conceptualization may be most relevant for males, as it is at odds with findings from this study suggesting that social bonds with romantic partners may not lead to desistence from, and instead may work to *promote,* women and girls' antisocial behavior (also see Giordano et al., 2002; Leverentz, 2006), particularly when their partners are themselves externalizing. This is consistent with the idea of assortative mating, which suggests that men and women with similar predispositions toward antisocial tendencies will form relationships (Krueger et al., 1998). Previous research also provides support, with evidence from longitudinal work suggesting that the effect of having an antisocial partner on criminal behavior is twice as large in women as men (Simons, Stewart, Gordon, Conger, & Elder, 2002), and that the stability of antisocial behavior from adolescence to adulthood is moderated by the presence of an antisocial romantic partner in women (Moffitt et al., 2001).

Beyond their conceptualization as a risk factor, this study also suggests that romantic partnerships are part of a gender salient context within which women's violence arises. Understood as such, romantic partnerships are micro-cultures (e.g., Young et al., 2006) that carry expectations, institute norms, and promote behavioral patterns.  The particular gender norms they may promote have been described in the women's studies literature – shaping women's behavior to be in keeping with the goals of maintaining relationships and keeping long-term partners (Zahn, 2010). That is, women and girls who engage in violence in the context of romantic partnerships are likely playing gender-congruent roles by fulfilling social expectations about the prioritization of intimate relationships and development of caretaking roles. This dynamic pattern

is highlighted by Carol Gilligan's (1982) work on moral development, which supports the notion that a key difference between men and women exists with respect to women's greater prioritization of a caretaking role, and that this difference is both shaped socially and manifest interpersonally. In this context, it is not women's behavior in isolation, but the meaning and motivation behind their behavior – for instance, to preserve and maintain relationships with males – that is particularly gender-salient in their pathways to violence.

Importantly, findings from this and other studies (Miller, 2008; Acoca, 1999; Chesney-Lind & Pasko, 2004) underscore the complexity of the dynamics present in romantic partnerships, and how they can promote women's use of violence. In qualitative interviews, it was clear that women's violence was at times a communicative act with the intended receiver of the message being their romantic partners and/or any others who may potentially be destructive to their relationship. This is consistent with the interplay of the "playa ethos" and the "cool pose" described by Jodi Miller (2008). In this way, women's violence can be understood as part of a gender role consistent with social expectations – of maintaining relationships, keeping partners, and demonstrating and requesting loyalty. Though some have described women's violence against their partners as antithetical to the female gender role, the current study argues the need to move beyond labeling women's behaviors as either "submissive" or "not submissive" and instead suggests a need to better understand the social meanings behind this phenomenon. Particularly, in the hypermasculine environments described by some study participants and in previous research (e.g., Parrott & Zeichner, 2003), women's violence may well be an integral part of enacting the female gender role and communicate a meaning consistent with femininity. Indeed, part of modern hyper*femininity* may be the willingness to go to extremes, including violence, to attain social and relationship goals (e.g., Hinshaw & Krantz, 2010).

This hypermasculine environment was most evident in women's accounts highlighting their victimization by intimate partners and their roles as sex workers. Perhaps these relational environments, and particularly where IPV occurs through a dynamic of coercive control (e.g., Dutton & Goodman, 2005; Stark, 2006), are characterized by a distinct pattern that carries the highest forms of overall risk for women. Certainly, some of the most severe incidents of violence instigated by women in the current study occurred in these contexts. In addition, these contexts are ripe for the experience of trauma and seem to partially elucidate the link between trauma and substance use found in the quantitative paths (and it may be the case that some of the variance captured by the quantitative trauma variable may overlap with women's experience of IPV and sex work). Nonetheless, IPV and sex work are not necessary precursors to women's use of violence, but may work as powerful environments that can lead to violence even for women with lower relative predispositions to antisocial behavior. Future work in using both quantitative and qualitative data can better delineate the extent to which romantic partnerships with and without coercive IPV and sex work are characterized by a distinct dynamic in regards to women's violence.

Importantly, the complexities inherent in the relational dynamics that lead to women's violence are likely not captured by these data. For instance, other gender norms and role expectations that may directly or indirectly promote violence are likely present and may need to be understood over the life course of romantic relationships. Undoubtedly, if there is some truth to the descriptive data suggesting that women who externalize are over five times more likely to also internalize, compared to male counterparts and non externalizing women (Kessler et al., 2005), then there may be an interesting interplay between enacting norms that 'keep in/internalize' and 'release/externalize' that creates a context in which using violence is an

option for women. These may include psychological experiences with clear cultural and social meanings (e.g., culture of honor; Cohen, Nisbett, Bowdle & Schwarz, 1996), including with respect to gender. For instance, "self-silencing", an experience thought to be important for women but typically studied in relation to their depression (e.g., Jack & Dill, 1992), has been associated with adolescent girls' externalizing symptoms over time and partially mediates the association between dating experiences and externalizing symptoms (e.g., Javdani, Nichols, Rodriguez, Emerson, & Donenberg, 2012). Findings from the present study suggest that romantic partnerships and other gender-salient experiences increase women's risk for using violence via the gender-based dynamics they promote.

### Gender as an Organizer of Violent Behavior

The third major finding of this study comes primarily from the juxtaposition of qualitative and quantitative findings. In the process of this juxtaposition, two key paradoxes emerged. The first uncovers tensions in the construct of violence itself and whether it can be understood, and therefore measured, as an act-based phenomenon versus whether it needs to be understood through its social meaning and its function. The second problematizes the notion that paths to violence can be 'un-gendered', 'gender-invariant', or 'gender-common', and questions what is lost when these labels are used. These findings are consistent with the mixed methods dialectic paradigm, which assumes that different interpretations (and ways of knowing) can be intentionally used together and engaged toward new or enhanced understanding. This is consistent with mixed methods purpose of initiation, which seeks the discovery of paradox and contradiction through recasting of questions or results from one method with questions or results from the other method.

**Recasting Frameworks Regarding Violence**

What do we lose when we reduce violence to acts? In one regard, results from Phase I demonstrate that all is not lost when violence is conceptualized as a behavior, measured as either present or absent, and counted such that greater frequency of violent behavior corresponds to greater severity on violence as an outcome. Indeed, many research studies examine violence in this way, including self and other-directed violence and find support for theoretically meaningful results (e.g., Sadeh et al., 2011). In this view, the lens with which one examines violence is decidedly narrow - violence is an isolated act that can be counted and summed. Using this conceptualization of violence, findings from Phase I of the current study evidenced results that were theoretically meaningful and still allowed for the contextualization of the whole pathway model advanced, despite the admittedly decontextualized way in which violence was measured. The female-specific pathway model was proposed based on research examining violence in a contextualized way and was supported empirically in this study, even when examined with an act-based violence outcome. There are several strengths to this way of measuring violence, not least of which is the idea that the act of violence, decontextualized, is in and of itself important. Both experiencing and perpetrating acts of violence are predictive of health (Krug, Mercy, Dahlberg, & Zwi, 2002) and mental health (Coker et al., 2002) outcomes in large epidemiological and clinical samples. In short, viewing violence as a behavior captured by its measurement as the presence or absence of an act is meaningful, predictable (to some extent), and predictive of important psychological phenomenon. However, violence is not solely an act and examining it as such can be reductionist.

The qualitative results from Phase II suggest that the meaning, intended and actual interpersonal purpose, and *social* functions of violence are among the things that are lost in an act-centered way of assessing violence. Though the qualitative interviews also began with the act

of violence – as a way to select women who engaged in violence and as a starting point to talk about the role of violence in women's lives – they also moved beyond the act itself. Women's interviews suggested that violent acts carried meaning and often were intended to communicate something – a feeling, a thought, the importance of a request. This is in contrast to defining violence as an act primarily intended to cause physical harm or threat or to exert control *over* another (Krug et al., 2002). However, by women's own accounts, this was often not the intended or actual function of their violence. This study suggests another function: violence was commonly used by women in a context in which they were marginalized – in response to powerlessness and within an environment of restricted opportunities and ideas (though this is not mutually exclusive from using violence to cause harm). Understanding the emergence of violence thus requires attention to gender as an organizer of the social sphere.

**Expanding Frameworks Regarding Gender**

What does it mean to call an act or a path gender-common? One consequence is to promote the fallacy critiqued in the IPV literature (e.g., Kimmel, 2002), which states that the same behavior by men and women implies that behavior is not influenced by gender. Findings from this study suggest that the meaning and function of violence are gendered; regardless of whether the act is the same and can be predicted by the same risk factors.

In particular, qualitative data show the centrality of gender as an organizer of social interaction (Anderson, 2005; Dobash et al., 1992) and suggest that gender contributes meaning to violent behavior because it is one important aspect of the context in which violence emerges. Qualitative results suggest that one primary purpose of women's violence was as a social communication and a response to powerlessness, and not necessarily to cause physical harm or demonstrate dominance (and if they did, their accounts suggest it was not their primary aim).

Viewing women's violence with respect to its social meaning and purpose can both reflect and promote the idea that violence is a socially acceptable behavior, even for women. Though this is paradoxical given that using violence may be a *superficial* deviation of the female gender role, women's violence may actually be part of the performance of their gender role so long as its primary purpose and meaning are in accordance with that role. Thus, it is neither shocking nor socially deviant for women to use violence when its function remains decidedly 'feminine'. In this study, one typical use of violence was toward the goal of maintaining romantic partnerships or communicating negative feelings about infidelity. In these ways, gender shapes behavior and imbues meaning around violence (see also, Lehrner, 2011).

At a more macro level of analysis and beyond the interpersonal function of violence, women's violence also carries a socio-structural function. Literature from psychology (Moane, 2003) and other disciplines (Chesney-Lind, 1989) suggests that this scenario can be characterized as one in which there are no liberating choices. For instance, a woman can decide to feel silenced or can use violence to try to get her point across; a girl can gain social status through her beauty or through establishing a reputation as a fighter. In these examples, though women have choice they also have clear limitations and a narrowed set of options. This is consistent with a social bind framework. Social binds can be understood as unresolvable dilemmas that work to limit opportunity and constrict choices (Frye, 1983; 1995). For example, in a "double bind", the act to obey one demand, desire, or cue ("I don't want to be alone") works to negate or disobey the other ("I don't want to be with him") and can result in actual or perceived entrapment. One implication advanced by these findings is that women's acts of violence are, in part, attempts to navigate social binds. Inherent to this dilemma is the social reality that the actor's choices are constricted such that any viable option is not a liberating one

(Frye, 1995). Violence thus became part of a menu of options that, as a group, were comprised of a series of social binds. That women's violence is still in keeping with the female gender role allows it to be placed on the menu. However, its availability as an option does not make it a liberating choice. Thus, use of violence may bring with it benefits that other choices do not have (e.g., convey distress more seriously*) and* continue to limit and constrain opportunities systematically.

Emerging within this context of limited opportunity, women's violence can be understood as a form of *externalized* oppression – an expansion of Prilleltensky and Gonick's (1996) idea of internalized oppression that suggests oppressive contexts give rise to mental health outcomes associated with depression. This idea is also in keeping with literature on stigma, which documents the association between experiencing stigma and symptoms of depression and anxiety (Corrigan, 2004). This study suggests that the social forces of oppression can manifest interpersonally and promote violent behavior in a way that is still in keeping with the female gender role because of its actual or intended function.

In addition to being a response to and reflection of an oppressive social context, women's violence may also serve the social function of maintaining oppressive social binds; an interpretation consistent with Brown's (2003) study of girlfights. This was particularly pronounced in descriptions of accounts in which women fought other women. Indeed, in some women's accounts, their violence directly enforced oppressive gender roles – for instance, a woman reported assaulting another woman who is perceived to be sexually promiscuous even though she was not described as a direct threat to the participant's relationship. In other instances, women describe using violence to maintain relationships in which there is deceit, abuse, and infidelity, suggesting the social press to "keep" and "stand by" one's partner trumps

the expressed desire for monogamy, commitment, and safety. This interpretation suggests that the social cost of losing a relationship is higher than the social costs associated with actions used to keep one, including violence. However, social costs are incurred either way. Oppression describes exactly this phenomenon: systematic subordination of a group via societal norms that render all viable options (at least partially) undesirable. Women's violence in many accounts may be a small resistance, but also it is also paradoxically an action that operates and maintains the social machinery of gender-based oppression. It does not create actual power and it promotes the societal norms that help maintain the systematic subordination of women (e.g., Frye, 1983; Lorber, 1994). This interpretation troubles the assumption made by scholars in the feminist and gender violence symmetry (e.g., Kimmel, 2002; Straus, 2006) literature, who suggest that it is only unreciprocated male violence against women that symbolizes women's oppression, and also rejects the dichotomy of women as either victims or aggressors (e.g., Pan, Neidig, & O'Leary, 1994).

<div align="center">**Implications for Research, Intervention, and Policy**</div>

One set of implications from this study relate to the examination and measurement of gender and violence. Act-based conceptualizations and measurements of women's use of violence have been critiqued in previous literatures (Lynch & Jarvis, 2008) with studies suggesting that instruments that rely on violent acts (e.g., the Conflict Tactics Scale) may over-inflate and misinterpret accounts of women's violence (e.g., see Lehrner, 2011). Research in this area is dominated by such assessments, including because of the popularity of use of arrest and incident data, which have also been critiqued for similar reasons (Steffensmeier & Allan, 1996). Findings from this study suggest that failing to understand the meaning and function behind violent actions works to reduce gender to the individual level and misses important and socio-

structural phenomenon. Multiple methods and paradigms can advance this area, including by a) examining and manipulating theorized gender-dynamics in laboratory settings and recognizing both the psychological and socio-structural implications of the observations (e.g., Cohen et al., 1996); b) theorizing new constructs that can be measured quantitatively and qualitatively, and work to elucidate gender-specific pathways and processes, and c) attending to the particular and universal meanings and functions of women's violence, such as through employing a criticalist lens to examine the extent to which women's particular experiences imply universal oppressive dynamics (e.g., Chesney-Lind, 2002; Miller, 2008).

There are also treatment and intervention implications of the current findings, which underscore the need for trauma-informed and relationship-based models of treatment. Evidence for the effectiveness of these types of interventions, which include explicit assessment of and sensitivity to women's trauma histories, is growing (e.g., Harris & Fallot, 2001) with research suggesting that trauma-informed interventions are significantly more effective in improving women's externalizing and internalizing mental health symptoms as compared with treatment as usual (Morrissey et al., 2005). Relationship-based models of care have also evidenced efficacy particularly for women who have experienced trauma in the form of IPV (Sullivan & Bybee, 1999); as have their extensions to reducing risky behavior for adolescent girls involved in the juvenile justice system (Javdani & Allen, 2012). A central mechanism of change is their reliance on supportive relationships in the process of treatment delivery (Allen, Larsen, Trotter, & Sullivan, in press). Though the current study included a high-risk sample of criminal justice involved women, these treatment models are likely promising for externalizing women experiencing trauma and/or IPV, regardless of their involvement in criminal justice.

Finally, policy implications are also suggested by the current study. Key systems in which to enact institutionalized changes are the criminal and juvenile justice systems. Though changing these systems is notoriously difficult (Bloom, Owen, & Covington, 2004) and they respond to offenses – an inherently act-based, decontextualized category – changes in their policies and practices are of high importance because of the increase in criminalizing women and girls (Javdani et al., 2011a) and the resulting negative rippling effects on communities (e.g., Bush-Baskette, 2004). Targeted policy changes in the criminal justice system can be implemented to respond to the fact that women who use violence are often both victims and offenders (Henning & Feder, 2004), a finding supported by the current study. In particular, the systematic integration of drug and domestic violence courts is one promising avenue. In addition to addressing the role of substance use and domestic violence-related trauma on women's violence, these courts have the potential to operate within the criminal justice system and have already evidenced effectiveness in pilot communities (e.g., Jones & Belknap, 1999; Harrell, Roman, & Sack, 2001). These courts are positioned to address some of the complexity often involved in women's' use of violence, including cases of dual arrest, in which the women are not the only aggressors (e.g., Feder, 1997) as well as in relation to addiction-related violence (e.g., Harrell et al., 2001). The critique that the criminal justice system is largely developed to respond to male crime is an important one that cannot be ignored when considering these future policy recommendations (Chesney-Lind & Sheldon, 2004), which have the potential to reverse discriminatory incarceration and arrest practices for women (see Chesney-Lind, 2002).

## Limitations

There are several limitations to the current study. Of note, the sample consists of primarily high-risk women and men with histories of criminal justice involvement, characterized

by low socio-economic status, and must be further examined to determine generalizability to other populations. Namely, the pathway generated from Phase I may be particularly characteristic of pathways for criminal justice-involved individuals and/or represent pathways for individuals at the more extreme end of an antisocial continuum. However, the pattern of findings for women's violence were advanced a priori and based on a variety of high-risk clinical and population-based studies (see Javdani et al., 2011b for a review). In addition, though a large proportion of women were African American, race and/or racial identity were not included as part of analyses but may contribute important information about the intersections between gender and racial/cultural norms in women's use of violence. This is particularly important in light of intersectionalist work that examines the socio-structural dynamics that arise in the interplay between gender and race (e.g., Collins, 1998; McCall, 2005). Though the patterns in the current study were present for both Black and White women, a deliberate examination of race may reveal important differences in the influence of socio-structural context on violence. Second, the study is cross-sectional and caution should be taken to avoid making causal linkages. Though there is ample evidence of triangulation and complementarity between quantitative and qualitative phases, and interviews with women specifically probed and supported the sequence of experiences, future longitudinal work is needed to establish causal links. Relatedly, this study focused on primarily on two paths to women's violence; it is likely that these paths are missing important phenomenon and that there are multiple other pathways and dynamics shaping women's use of violence, including for women in same-sex partnerships. The current study examined only a subset of risk factors evidenced in the most recent review of female antisocial behavior (e.g., did not consider early pubertal development; Javdani et al., 2011b) and can be further expanded in future research. Similarly, qualitative analyses in this study are not

exhaustive, as there are likely themes and core concepts important for women's violence that are not revealed in this inquiry. However, deliberate efforts were taken to search for disconfirmation of the themes presented to ensure they were systematically examined and grounded in the data.

Further, the focus of this study was to examine women's use of violence, and men were only included in the quantitative phase, which did not support a strong-fitting full model for male violence. This is potentially because risk factors from this model were purposefully selected as promising predictors for women (e.g., trauma). Importantly, though men did demonstrate a broad range of scores on these predictors, they were not as strongly associated with their violence. Men were not included in follow up qualitative interviews and findings should not be taken to imply that men's use of violence is uncomplicated or unshaped by individual level and socio-structural gender dynamics. A major limitation was that this dynamic was not examined in this study, but can be examined in future work.

In addition, one of the areas solely discussed in the quantitative phase were findings about specific genes (MAO-A and 5HTT). Indeed, because this is an emerging area of research, particularly with respect to genetic effects on women's violence, modeling in relation to specific genes will be considered exploratory. We further underscore the difficulties replicating genetic relationships with psychological outcomes (Duncan & Keller, 2011) and discrepant findings at the meta-analytic level (e.g., Karg et al., 2011; Risch et al., 2009). We also note the presence of missing data for 42 participants and echo others who caution the importance of replication and attention to outliers driving findings on specific genes (e.g., Risch et al., 2009). It is also important to note that ethnic differences have emerged in relation to the distribution of alleles in the population (e.g., Gelernter, Kranzler & Cubells, 1997) warranting the need to examine ethnicity as a potential confound (e.g., whether ethnicity accounts for observed gene effects). In

addition, findings regarding MAO-A in particular should be noted as preliminary, given the

mixed findings evidenced in the literature on women's violence with this gene. Specifically,

about two-thirds find evidence for the same high activity variant correlating with women's

violence, while one-third find an association for the low activity variant (see Javdani et al.,

2011). One reason for this may be the large proportion of African Americans in this current

sample, who are more likely to be carriers of the long allele than their non-African American

counterparts.

Finally, a single coder coded qualitative interviews and inter-rater agreement could not be

calculated for the codes generated. It is important to note that many codes reported in this study

are highly descriptive (e.g., did violence occur against a partner) and not highly interpretive.

However, other codes, such as those around the dynamics of power and their relation to women's

use of violence are more interpretive. Though the present study did not include multiple coders,

memoing, taking field notes, and peer debriefing were used in order to promote a reflexive and

transparent coding process (Berg, 2001). In future work, these data can be examined by other

raters to establish inter-rater reliability and to further corroborate the salient themes that emerged

from the data.

## Conclusion

The central aim of the present study was to investigate pathways towards women's

violence and to elucidate its social contexts with attention to gender at the individual and socio-

structural levels. Findings overwhelmingly support the need for attention to gender in examining

both the correlates and the social meanings and functions of violence. Gender was supported

both as a moderator of the relationship between explanatory variables and violence and as an

organizer of social behavior. Multiple methodologies were used for several purposes.

Findings evidenced (1) triangulation, with both methods supporting the hypothesized female-specific paths. The quantitative model supported a gender-common and female-specific path, with the former implicating an interaction between MAO-A and childhood abuse to influence the development of early and adulthood violence and the latter implicating an interaction between-5HTT and childhood abuse to influence the development of status offenses, which both directly and indirectly promoted exposure to traumatic events, substance use and violence. Qualitative findings support the existence of both paths and the sequence of experiences modeled in cross-sectional quantitative analyses. Further, findings supported (2) elaboration, with the qualitative method suggesting the centrality of the gender-salient contexts of IPV and sex work in women's lives. These gender-salient contexts were also associated with women's use of violence both inside and outside of intimate partnerships, suggesting that women's subjugation is tightly linked with their use of violence. Finally, toward the purpose of (3) initiation, the juxtaposition of methods highlighted strengths and limitations of "reducing" violence to actions and the importance of gender as it operates both within and outside of the individual woman. This set of findings underscores the conceptualization of gender as a principle of social organization and argues that women's violence is a qualitatively different phenomenon than that of men's, even if it can be (in part) quantitatively predicted by the same factors. As such, violence is a choice within a limited opportunity structure that may be used by women in a context in which oppression is instantiated, and can also paradoxically work to enforce and maintain social binds.

TABLES

Table 1

Demographic Information for all participants ($N$ = 477)

|  | Category | % | Gender Difference |
|---|---|---|---|
| **Gender** | Men | 65% | Not Applicable |
|  | Women | 35% |  |
| **Education** | Less than High School | 34% | $\chi2(4) = 3.87$, *ns* |
|  | High School Diploma | 21% |  |
|  | Some college | 39% |  |
|  | Bachelor's Degree | 5% |  |
|  | Higher Education | <1% |  |
| **Employment** | Unemployed, Seeking | 33% | $\chi2(4) = 15.62$, *p< .05* |
|  | Unemployed, Not Seeking | 13% |  |
|  | Employed Part-Time | 16% | Men are more likely to be employed. |
|  | Employed Full-Time | 35% |  |
|  | Student | 3% |  |
| **Income** | < $15,000 | 52% | $\chi2(4) = 15.49$, *p< .05* |
|  | $15-30,000 | 27% |  |
|  | $30-45,000 | 10% | Women are more likely to report lower income. |
|  | $45- 60,000 | 7% |  |
|  | $60,000 or more | 4% |  |
| **Ethnicity** | Caucasian | 37% | $\chi2(3) = 13.21$, *p< .05* |
|  | African-American | 55% |  |
|  | Mixed | 4% | Men are more likely to be African American. |
|  | Other | 3% |  |
| **Marital Status** | Single | 52% | $\chi2(3) = 7.21$, *ns* |
|  | Married | 12% |  |
|  | Divorced | 12% |  |
|  | Living with Another | 23% |  |
| **Number of Children** | 0 Children | 35% | $\chi2(3) = 2.28$, *ns* |
|  | 1 or more | 23% |  |
|  | 2 or more | 42% |  |

Table 1 continued

| Treatment History | Counseling | 41% | $\chi2(6) = 38.61, p < .05$ |
|---|---|---|---|
| | Mandated | 16% | |
| | Hospitalization | 9% | Women are more likely to report treatment history. |
| | Case Worker/Job Counselor | 5% | |
| | Substance Use | 18% | |
| | Support Group | 9% | |
| | Psychiatrist | 7% | |
| **Legal History** | Probation | 71% | $\chi2s(1) = 4.97$ to $32.44, ps < .05.$ |
| | Parole | 44% | |
| | Jail | 77% | Men are more likely to have a history of all legal indicators. |
| | Prison | 54% | |
| **Current Legal Status** | Probation | 21% | $\chi2s(1) = 3.71$ and $22.17, ps < .05.$ |
| | Parole | 23% | |
| | Jail | 40% | Men are more likely to be on parole and in jail, respectively |

*Note. ns* = non significant (i.e., p> .05).

Table 2

Descriptive information for all study variables (*N* = 477)

| Variable | Category | % | Gender Difference |
|---|---|---|---|
| **Serotonin Transporter** | Short/short | 13% | $\chi2(2)$ = 4.014, *ns* |
| | Short/long | 43% | |
| | Long/long | 44% | |
| **Monoamine Oxidase-A** | High Activity | 59% | $\chi2(1)$ = 24.09, *p< .05* |
| | Low Activity | 41% | Women are more likely to carry high activity alleles. |

| Variable | Mean (SD) | Range | Gender Difference |
|---|---|---|---|
| **Childhood Abuse** | **16.80 (9.04)** | **0-50** | *t*(461) = 5.79, *p< .05* |
| ▪ Physical Abuse | ▪ 9.26 (4.93) | ▪ 0-25 | women > men |
| ▪ Sexual Abuse | ▪ 7.54 (5.35) | ▪ 0-25 | ▪ Gender differences apply to both types of abuse. |
| **CD Symptoms: Aggression** | **1.22 (1.41)** | **0-6** | *t*(462) = -7.09, *p< .05* |
| | | | men > women |
| **CD Symptoms: Status Offenses** | **.58 (.81)** | **0-3** | *t*(462) = -1.68, *p< .05* |
| | | | men > women |
| **Adulthood Trauma** | **.62 (.66)** | **0-4** | *t*(459) = 6.08, *p< .05* |
| ▪ Sexual Assault | ▪ .11 (.32) | ▪ 0-1 | women > men |
| ▪ Sexual Abuse | ▪ .03 (.17) | ▪ 0-1 | ▪ Gender differences apply to sexual traumas only. |
| ▪ Physical Attack | ▪ .46 (.50) | ▪ 0-1 | |
| ▪ Other Physical Trauma | ▪ .03 (.17) | ▪ 0-1 | |
| **Substance Use Symptoms** | **0.0 (1.60)** | **-2.4-3.5** | *t*(463) = 1.18, *ns* |
| ▪ Alcohol | ▪ 3.97 (3.54) | ▪ 0-11 | |
| ▪ Drugs | ▪ 3.19 (2.46) | ▪ 0-7 | |
| **Violence** | **0.0 (1.50)** | **-2.7-4.9** | *t*(473) = -8.36, *p< .05* |
| ▪ LHA Interview | ▪ 4.71 (2.62) | ▪ 0-10 | men > women |
| ▪ Public Records | ▪ .68 (.71) | ▪ 0-3 | ▪ Gender differences apply to both indicators. |

*Note*. SD = Standard Deviation; CD = Conduct Disorder; LHA = Life History Interview; Means for adulthood trauma can be interpreted as percentages of each trauma category endorsed; * *p< .05*; *ns* = non significant (i.e., *p> .05*).

Table 3

Descriptive information for all study variables separately for men (*n* = 312) and women (*n* = 165)

| Variable | MEN<br>% (n) | | WOMEN<br>% (n) | |
|---|---|---|---|---|
| **Serotonin Transporter** | | | | |
| ▪ Short/short | ▪ 18% (n = 32) | | ▪ 11% (n = 23) | |
| ▪ Short/long | ▪ 43% (n = 127) | | ▪ 43% (n = 56) | |
| ▪ Long/long | ▪ 39% (n = 135) | | ▪ 46% (n = 51) | |
| **Monoamine Oxidase-A** | | | | |
| ▪ High Activity | ▪ 51% (n = 146) | | ▪ 76% (n = 100) | |
| ▪ Low Activity | ▪ 49% (n = 141) | | ▪ 24% (n = 31) | |
| **Variable** | **MEN**<br>Mean (SD) | Range | **WOMEN**<br>Mean (SD) | Range |
| **Childhood Abuse (CTQ)** | 16.80 (9.04) | 8-46 | 20.03 (11.70) | 7-50 |
| ▪ Physical Abuse | ▪ 9.26 (4.93) | ▪ 4-25 | ▪ 9.89 (5.73) | ▪ 4-25 |
| ▪ Sexual Abuse | ▪ 7.54 (5.35) | ▪ 4-25 | ▪ 10.14 (7.12) | ▪ 3-25 |
| **CD Symptoms: Aggression** | 1.54 (1.52) | 0-6 | .62 (.89) | 0-4 |
| **CD Symptoms: Status Offenses** | .63 (.85) | 0-3 | .49 (.72) | 0-3 |
| **Adulthood Trauma** | .49 (.55) | 0-2 | .87 (.79) | 0-3 |
| ▪ Sexual Assault | ▪ .01 (.11) | ▪ 0-1 | ▪ .31 (.46) | ▪ 0-1 |
| ▪ Sexual Abuse | ▪ .02 (.14) | ▪ 0-1 | ▪ .04 (.21) | ▪ 0-1 |
| ▪ Physical Attack | ▪ .43 (.50) | ▪ 0-1 | ▪ .50 (.50) | ▪ 0-1 |
| ▪ Other Physical Trauma | ▪ .03 (.16) | ▪ 0-1 | ▪ .02 (.16) | ▪ 0-1 |
| **Substance Use Symptoms** | 0.0 (1.60) | -2.42-3.54 | 0.1 (1.60) | -2.42-3.54 |
| ▪ Alcohol | ▪ 4.01 (3.51) | ▪ 0-11 | ▪ 3.8 (3.59) | ▪ 0-11 |
| ▪ Drugs | ▪ 3.00 (2.37) | ▪ 0-7 | ▪ 3.55 (2.59) | ▪ 0-7 |
| **Violence** | .40 (1.50) | -2.74-4.90 | -.74 (1.22) | -2.74-3.0 |
| ▪ LHA Interview | ▪ 5.33 (2.59) | ▪ 0-10 | ▪ 3.56 (2.28) | ▪ 0-10 |
| ▪ Public Records | ▪ .80 (.74) | ▪ 0-3 | ▪ .41 (.56) | ▪ 0-3 |

*Note*. SD = Standard Deviation; CD = Conduct Disorder; LHA = Life History Interview; Means for adulthood trauma can be interpreted as percentages of each trauma category endorsed; * *p*< .05; *ns* = non significant (i.e., *p*> .05).

Table 4

Bivariate correlations among study variables separately for men (*n* = 312) and women (*n* = 165)

| Men / Women | Violence | Substance Use | Adult Trauma | CD Aggression | CD Status | Child Abuse |
|---|---|---|---|---|---|---|
| Violence | 1 | .24* | .15 | .53* | .23* | .24* |
| Substance Use | .03 | 1 | .31* | .14 | .21* | .16* |
| Adult Trauma | .16* | .17* | 1 | .19* | .19* | .17* |
| CD Aggression | .46* | .16* | .09 | 1 | .18* | .14 |
| CD Status | .26* | .18* | .08 | .34* | 1 | .08 |
| Child Abuse | .17* | .15* | .04 | .13* | .06 | 1 |

*Note*. CD = Conduct Disorder. Gray shaded boxes are correlations for men. * *p* < .05.
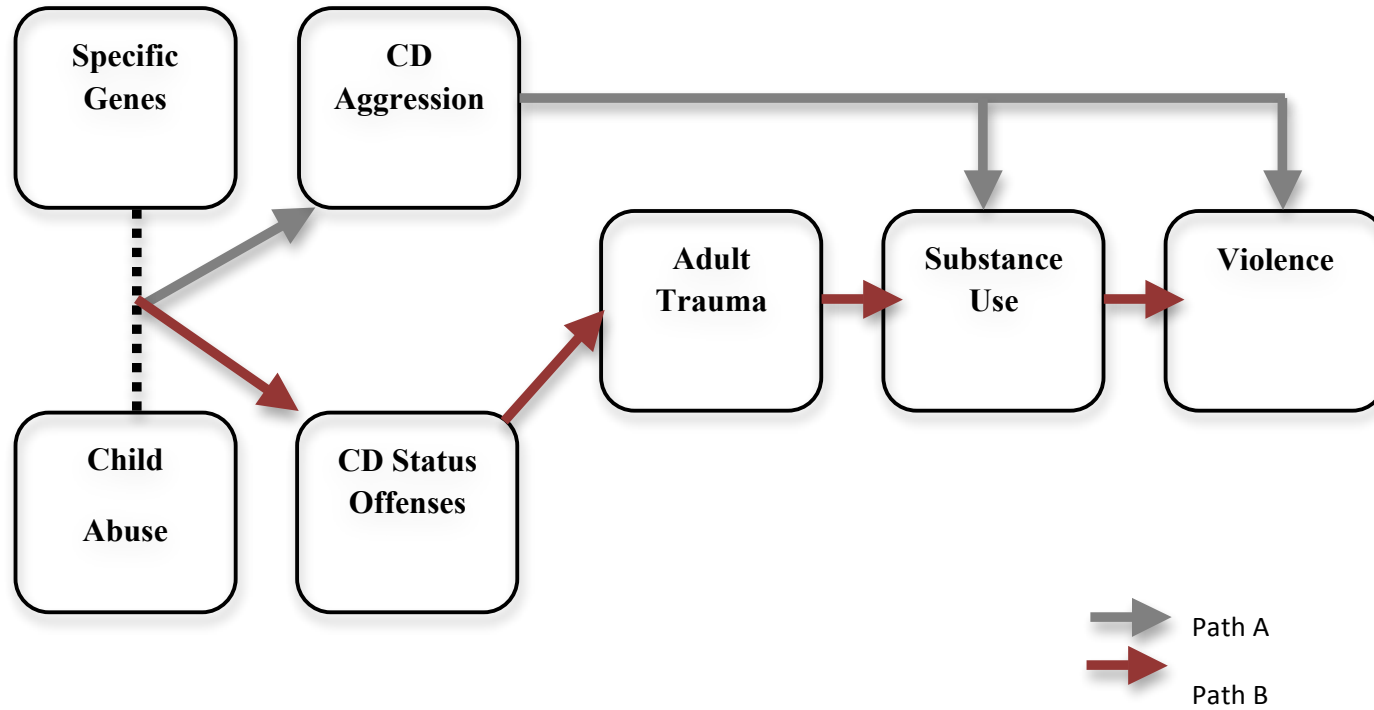
Figure 1. Proposed path model for Phase I.
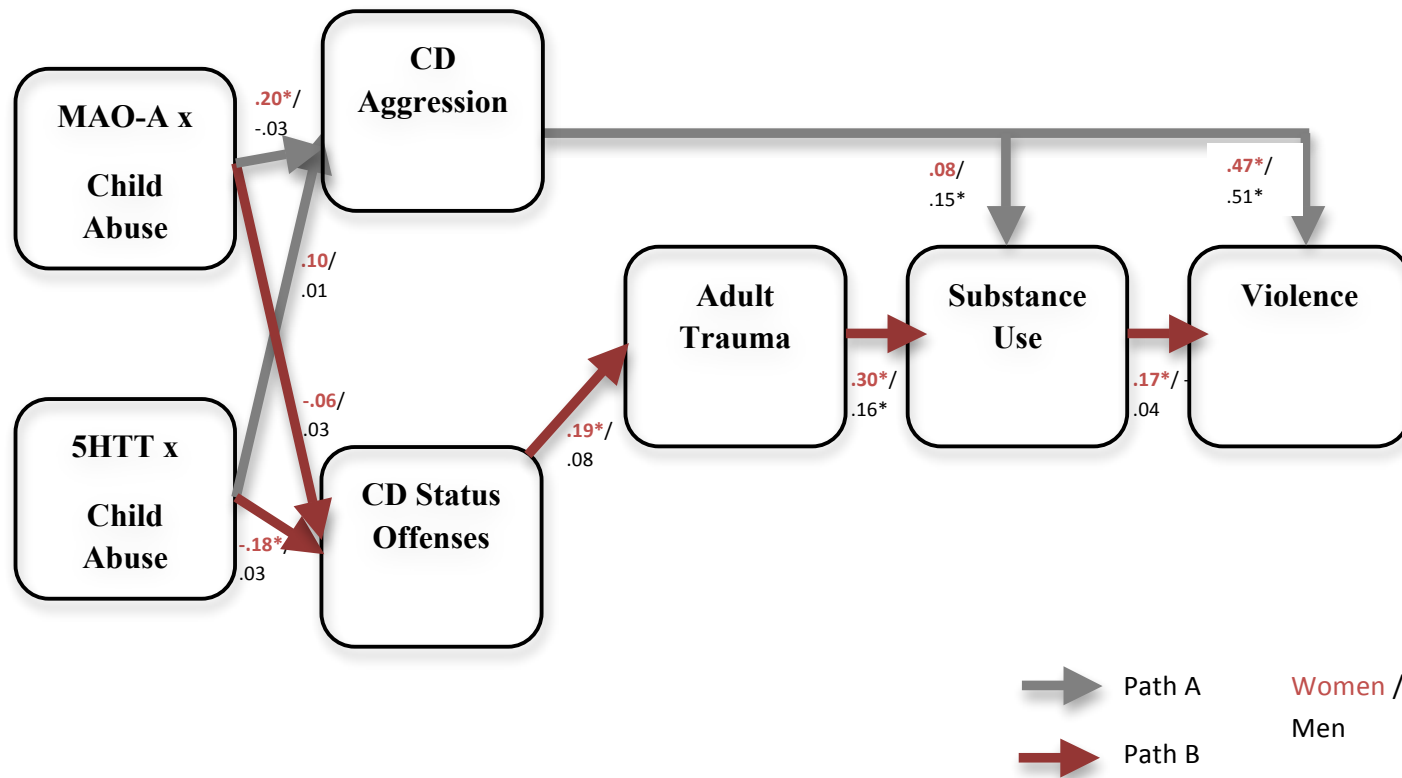
Figure 2. Path analysis results for men and women, for Path A and B. * *p*< .05.
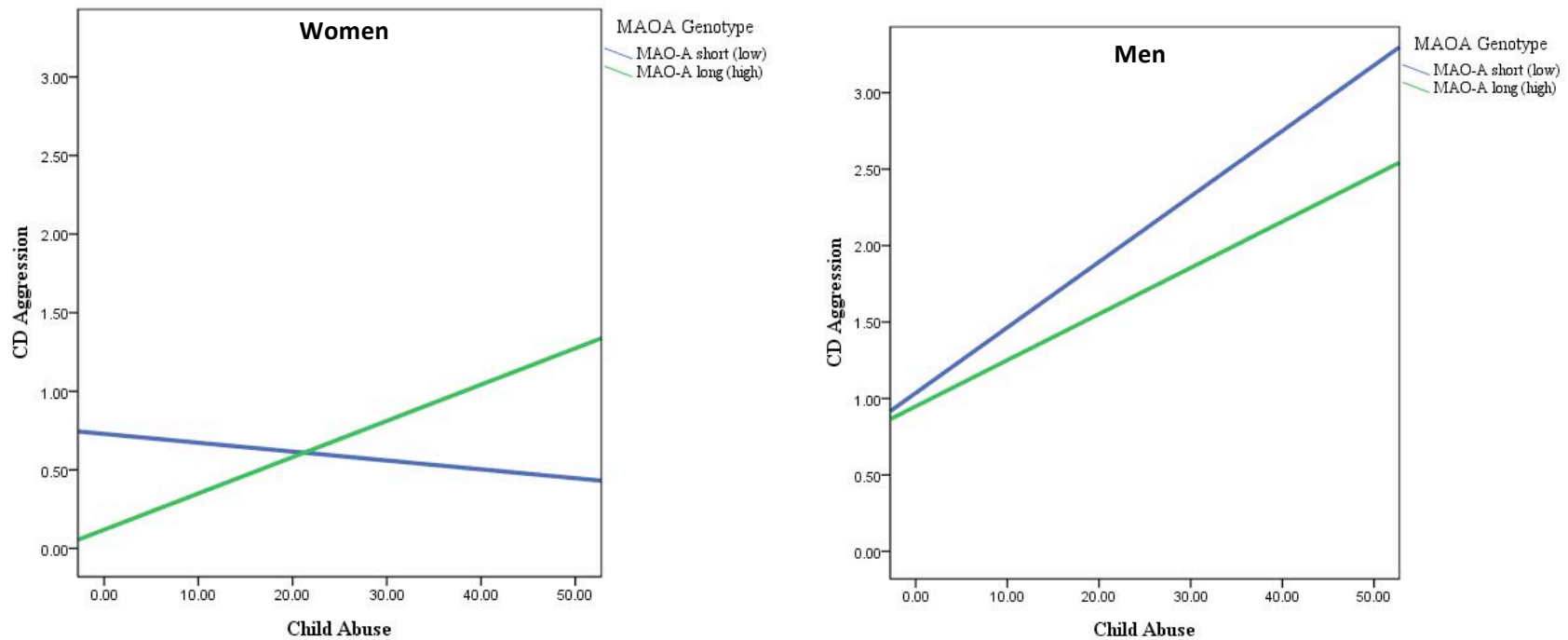
Figure 3. MAO-A x Child Abuse Predicts CD Aggression in Women but not Men.

*Note*. In women, bivariate correlations by allele group are as follows: low activity: *r* = -.08, *ns*. High activity: *r* = .30, *p*< .01; Linear regression results are as follows: MAOA β = -.03, SE = .19, ns; Child Abuse β = .22, SE = .01, *p* = .01; MAOAxChild Abuse β = .17, SE = .02, *p* = .08; In men, bivariate correlations by allele group are as follows: low activity: *r* = .16, *p* = .07. High activity: *r* = .16, *p* = .06; MAOA β = -.09, SE = .19, ns; Child Abuse β = .16, SE = .01, *p* = .01; MAOAxChild Abuse β = -.03, SE = .03, ns..
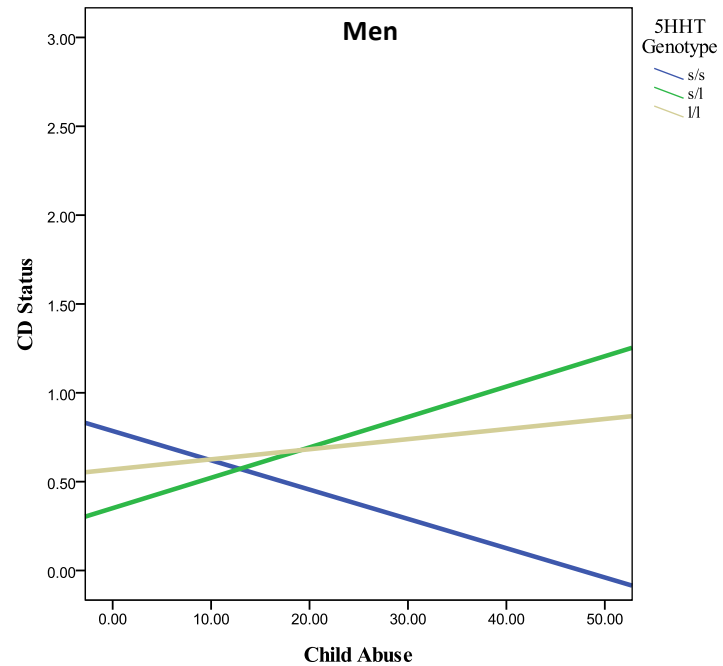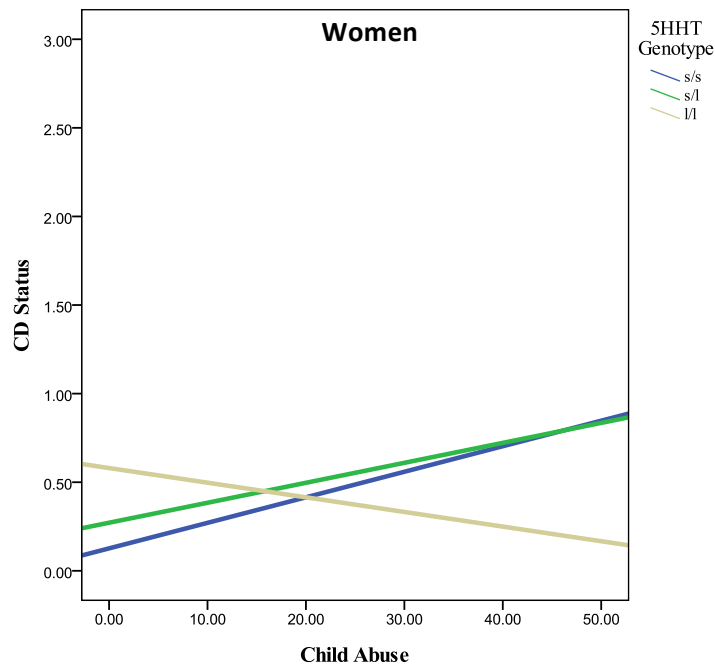
Figure 4. 5HTT x Child Abuse Predicts CD Status Offense in Women but not Men

*Note*. In women, bivariate correlations by allele group are as follows: s/s, r = .26, ns; s/l, r = .17, ns; l/l, r = -.15, ns; Linear regression results are as follows: 5HTT, β = -.02, SE .09, ns; Child Abuse, β = .06, SE = .01, ns; 5HTTxChild Abuse β = -/17, SE = .01, *p* = .08); In men, bivariate correlations by allele group are as follows s/s, r = -.16, ns; s/l, r = .14, ns; l/l r = .04, ns; Linear regression results are as follows: 5HTT β = .05, SE = .01, ns; Child Abuse β = .06, SE = .01, ns; 5HTTxChild Abuse β = .03, SE = .01, ns.
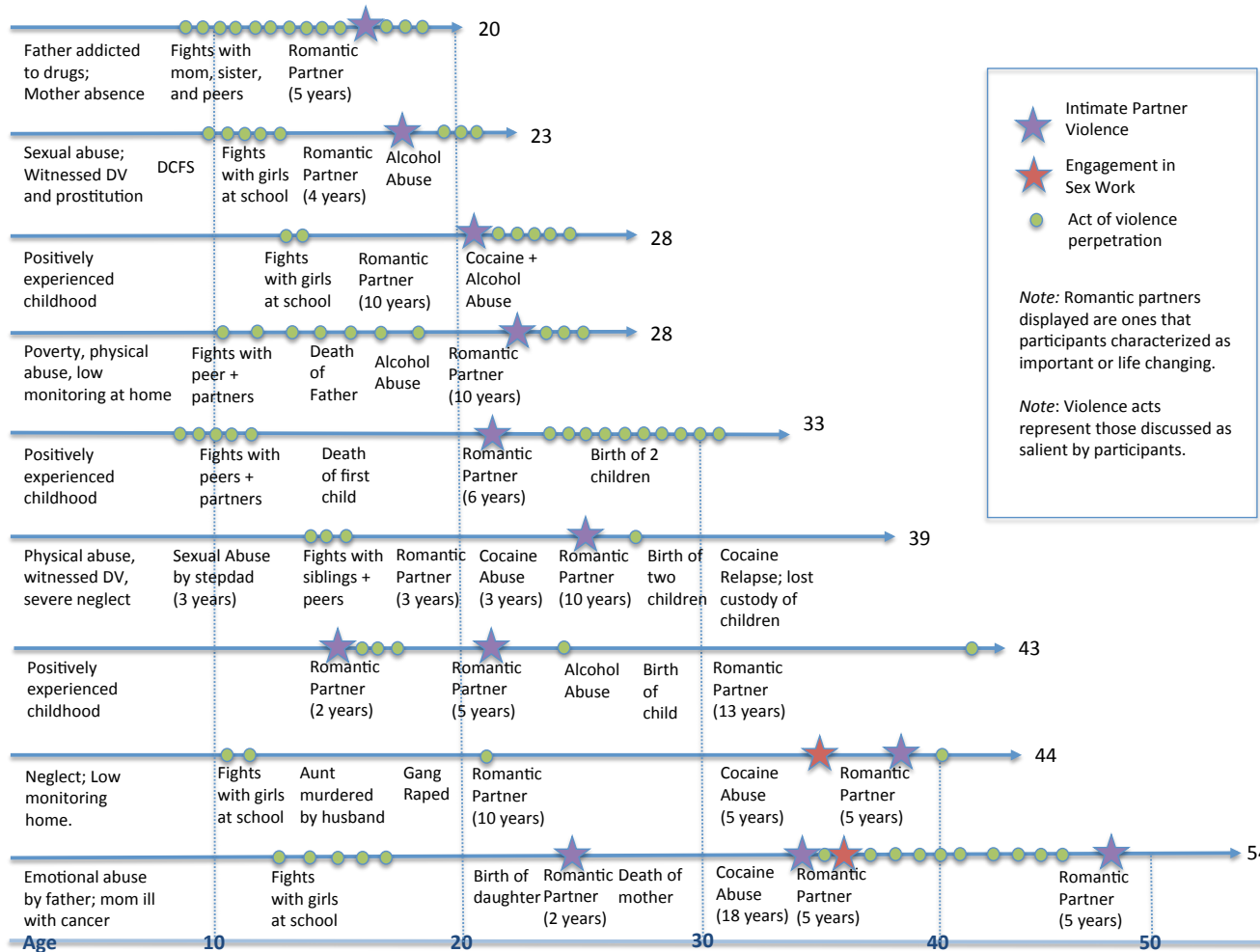
Figure 5. Non-Runaway Women
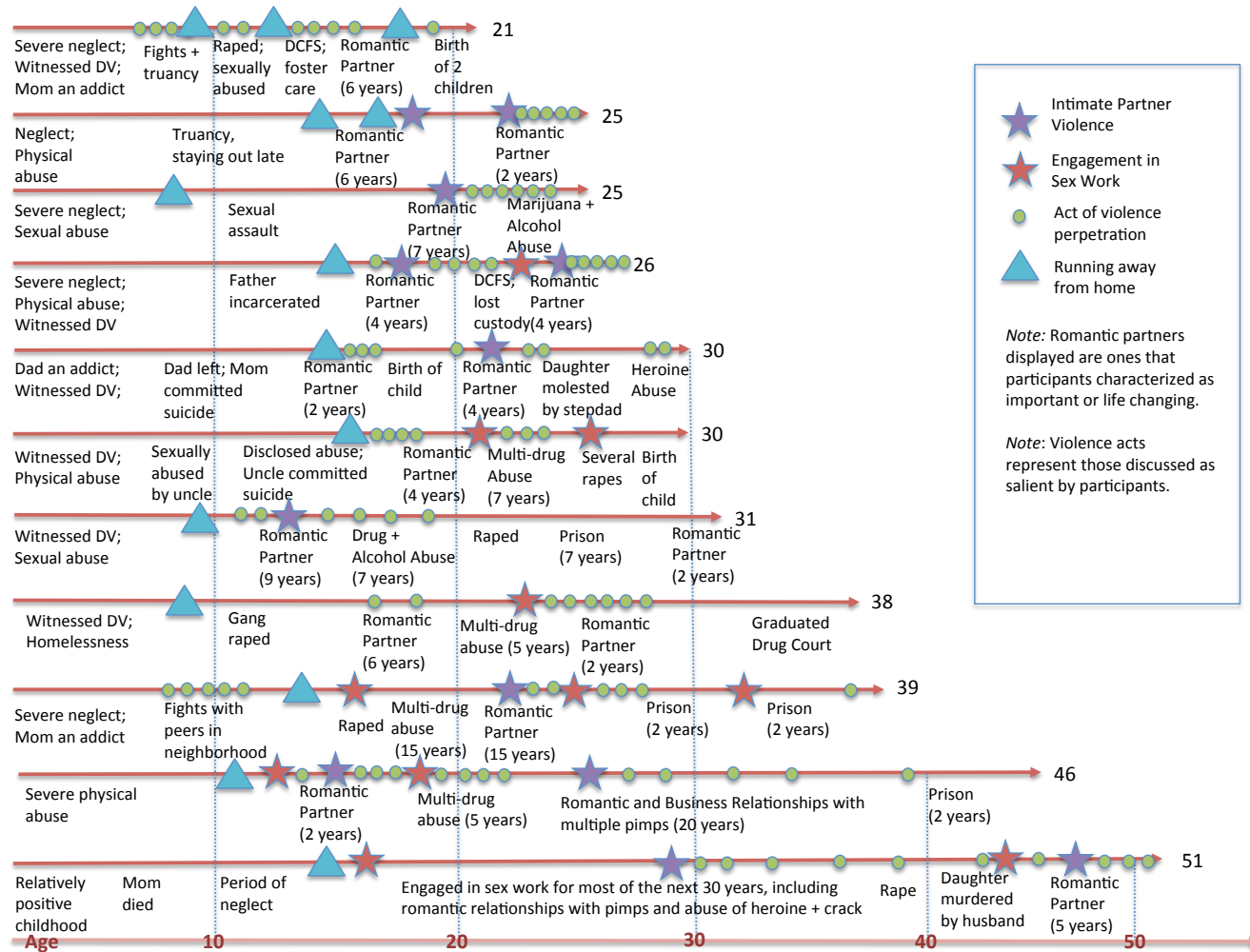
Figure 6. Runaway Women

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APPENDIX A

Developmental Model of Female Antisocial Behavior (Reproduced from Javdani, Sadeh, & Verona, 2011).
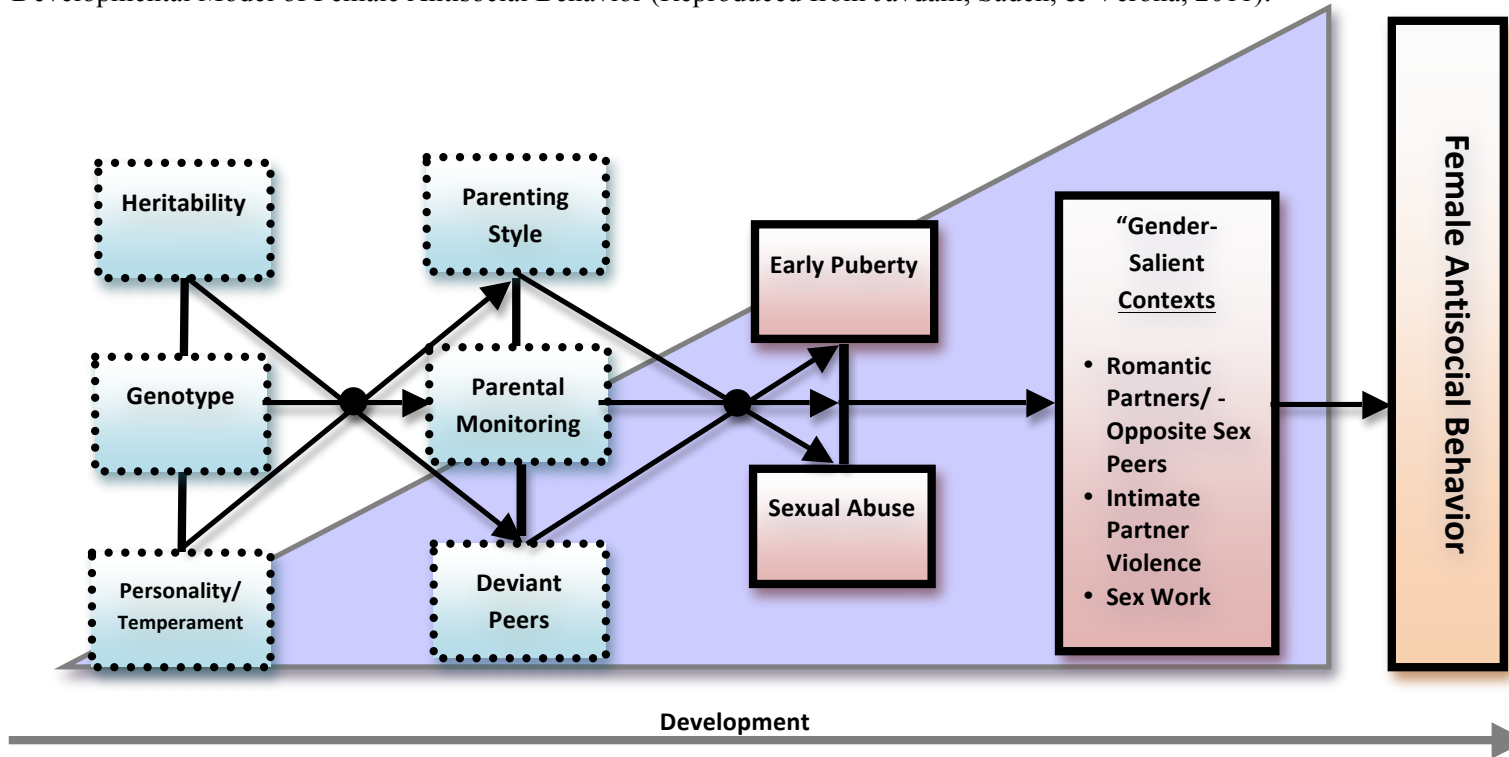


*Note.* Dotted squares represent gender-common risk factors. Solid squares represent gendered risk factors. The increasing influence of ecological forces (e.g., gender norms, power, and patriarchy) is represented by the triangle.

# MEASURES: DEMOGRAPHIC VARIABLES

## PARTICIPANT INFORMATION SHEET: SELF REPORT

**Instructions:** Please fill out or circle the following information about yourself.  All responses are completely confidential.

1. **Zip Code:** _____
2. **Age:** _____
3. **Sex:**
   1 = male  0 = female

4. **Ethnicity:**
   1 = Caucasian                                   5 = Pacific Islander or Hawaiian

   2 = African American                          6 = Native American

   3 = Asian descent                              7 = Mixed ethnicity

   4 = Hispanic descent                     8 = Other: _____

5. **Household income (if you are a student or dependent, select your parent/guardian household income):**
   1 = less than $15,000                          4 = $45,001 – 60,000

   2 = $15,000-30,000                            5 = $60,001 – 75,000

   3 = $30,001 – 45,000                          6 = Over $75,000

6. **Where did you hear about our study?**
   1 = State Parole                              5 = Counselor/Treatment Center: _____

   2 = County Probation                        6 = Newspaper Ad (News-Gazette, etc.)

   2 = Federal Probation                      7 = Other: _____

   3 = Flyer in community (coffee shop, supermarket, etc.)

7. **Are you currently taking any medications for a physical or psychological condition?**
   1 = Yes   0 = No

   **If yes, what are the medications and/or what are they for?**

   1 _____

   2 _____

   3 _____

**DEM-I**

## 1.  Time in community:

*How long have you lived in the Champaign-Urbana community?*          _____

    *How long have you lived in your current residence?*          _____

    *How long do you plan on staying in this area?*          _____

---

## 2.  Level of education:

*What is the furthest you have gone in school?*

    *Are you a high-school graduate?*

    *Did you attend a college or a junior college?*

    *Are you currently enrolled in college?*

    *Did you graduate from a college or university?*

    *Have you completed any degrees beyond a Bachelor's (for example: master's, law, graduate, etc)*

1 = less than H.S. diploma
2 = H.S. diploma
3 = current college student
4 = some college
5 = bachelor's degree
6 = higher education (master's, law, graduate)

---

## 3.  Employment status:

*What is your current employment situation?*

    *Are you employed part-time or full-time?*

    *Are you working while also attending school?*

    *What do you consider your primary activity – school or employment- to be here in the community?*

    *Are you actively seeking employment?*

    *Are you retired?*

1 = unemployed, seeking employment
2 = unemployed, not seeking employment
3 = part-time
4 = full-time
5 = retired
6 = student: (college/grad/professional)
7 = other (please specify)
_____

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*How long have you been in that situation?*

*What is your occupation?*

**If participant is employed and attends school, determine what they consider their primary activity (i.e. school or employment) to be within the community; their primary activity should be marked as the final answer.**

## 4.  Income Source:

*What income do you pay your primary expenses with?*

> *If you file taxes, did you claim yourself as independent or dependent on your last income tax return?*

> *Do your parents provide financial assistance?*

> *Do any relatives, other than parents, provide financial assistance?*

> *Do you receive any forms of public financial assistance (for example: welfare, disability/social security, etc.)*

1 = independent
2 = dependent
3 = public assistance

**To be classified as financially independent, the participant must pay the majority of his/her expenses with monies that he/she earned or possess.**

## 5.  Marital Status:

*What is your current relationship status?*

1 = single
2 = living with another
3 = married
4 = divorced
5 = widowed

> *Are you currently living with someone?*

> *Are you two romantically involved?*

> *Have you ever been divorced?*

> *When was the divorce?*

*Are you a widow, or widower?*

**The marked response in this section should reflect the most recent status. For example, if the participant was divorced two years ago and has recently remarried, the marked response would be 3 = married.**

6. **Number of Children:**

*Do you have any children?*

> *How many children do you have?*
>
> *What are the ages of your children?*

1 = no children
2 = 1 child
3 = 2 children
4 = 3 children
5 = 4 or more children

**The number of children should include both biological and custodial children that the participant claims legal responsibility for.**

7. **Children living at home:**

*Are any of your children living with you?*

> *How many of your children live with you at home?*
>
> *Are any of your children away at school?*

1 = doesn't have children
2 = 0 children living at home
3 = 1 child living at home
4 = 2 children living at home
5 = 3 children living at home
6 = 4 or more children living at home

> **If divorced,**
>
> *How much time in a month do your children live with you at home?*

**Mark the number of children that currently live in their residence. If divorced, include all children that they have supervision of 50% of the time or more.**

8. **Current Housing:**                                            Mark all that apply:

*What type of residence do you currently live in (for example: house,*          1 = house/apartment

*apartment)?*

2 = parent(s) home
3 = dorm (university housing)
4 = friend or relative's house/apartment
5 = shelter
6 = half-way house
7 = homeless: street
8 = transient housing (hotel, motel)
10 = prison/ incarcerated
9 = other:

_____


_____


*How long have you lived at this specific residence?*


**Mark all residences that the participant has lived in within the last 12 months.**

---

## 9. <u>Housing in the past 12 months & prior:</u>

*What type of residence did you live in 12 months ago (for example: house, apartment)? Include any housing outside of jail/incarceration.*

Mark all that apply:

1 = house/apartment
2 = parent(s) home
3 = dorm (university housing)
4 = friend or relative's house/apartment
5 = shelter
6 = half-way house
7 = homeless: street
8 = transient housing (hotel, motel)
10 = prison/ incarcerated
9 = other:

_____

_____

*How long did you live at that residence?*

**Mark all residences the participant has lived in prior to the last 12 months.**

### 10. Current services being used (within the past 12 months):

*Do you take advantage of any counseling or therapy services?*

*Are these services individual sessions or group sessions?*

*Do you have any mandatory, court-ordered commitments (for example: support groups, community service, drug testing, etc.)?*

*Do you currently take advantage of any of the following services:*

    *Case workers or social workers?*

    *Job training or coaching?*

    *Substance abuse counseling?*

    *Crisis line services?*

    *Legal representation?*

Mark all that apply:

1 = individual counseling/therapy
2 = group counseling/therapy
3 = mandated treatment
4 = hospitalization
5 = case worker/social worker
6 = job/employment counselor
7 = substance abuse treatment
8 = crisis line services
9 = lawyer (legal) services
10 = support groups (AA, NA, Al-Anon)
13 = psychiatrist
11 = other:

_____

12 = none

**All court-ordered services should be marked as 3 = mandated treatment. All other services that the participant is voluntary seeking would be marked as a response other than 3 = mandated treatment.**

---

**11. Services ever used (prior to the last 12 months):**

*Did you take advantage of any counseling or therapy services?*

*Were these services individual sessions or group sessions?*

*Did you have any mandatory, court-ordered commitments (for example: support groups, community service, drug testing, etc.)?*

*Did you take advantage of any of the following services:*

    *Case workers or social workers?*

    *Job training or coaching?*

    *Substance abuse counseling?*

    *Crisis line services?*

    *Legal representation?*

Mark all that apply:

1 = individual counseling/therapy
2 = group counseling/therapy
3 = mandated treatment
4 = hospitalization
5 = case worker/social worker
6 = job/employment counselor
7 = substance abuse treatment
8 = crisis line services
9 = lawyer (legal) services
10 = support groups (AA, NA, Al-Anon)
13 = psychiatrist
11 = other:
_____

12 = none

**Mark all social services ever used prior <u>to 12 months ago AND after age 12</u>. All court-ordered services should be marked as 3 = mandated treatment. All other services that the participant is voluntary seeking would be marked as a response other than 3 = mandated treatment.**

# MEASURES: EXPLANATORY VARIABLES PHASE I

## CHILDHOOD TRAUMA QUESTIONNAIRE: SELF REPORT

INSTRUCTIONS
Below are a number of statements about experiences or feelings you may have had <u>as a child</u>.  Please answer each question as honestly as you can. There are no right or wrong answers. Do not spend too

| When I was growing up… | Never True | Rarely True | Sometimes True | Often True | Always True |
|---|---|---|---|---|---|
| 1. I didn't have enough to eat | 1 | 2 | 3 | 4 | 5 |
| 2. I knew that there was someone to take care of me and protect me | 1 | 2 | 3 | 4 | 5 |
| 3. People in my family called me things like "stupid," "lazy," or "ugly." | 1 | 2 | 3 | 4 | 5 |
| 4. My parents were too drunk or high to take care of the family | 1 | 2 | 3 | 4 | 5 |
| 5. There was someone in my family who helped me feel that I was important or special | 1 | 2 | 3 | 4 | 5 |
| 6. I had to wear dirty clothes | 1 | 2 | 3 | 4 | 5 |
| 7. I felt loved | 1 | 2 | 3 | 4 | 5 |
| 8. I thought my parents wished I had never been born. | 1 | 2 | 3 | 4 | 5 |
| 9. I got hit so hard by someone in my family that I had to see a doctor or go to the hospital. | 1 | 2 | 3 | 4 | 5 |
| 10. There was nothing I wanted to change about my family. | 1 | 2 | 3 | 4 | 5 |
| 11. People in my family hit me so hard that it left me with bruises or marks | 1 | 2 | 3 | 4 | 5 |
| 12. I was punished with a belt, a board, a cord, or some other hard object | 1 | 2 | 3 | 4 | 5 |
| 13. People in my family looked out for each other. | 1 | 2 | 3 | 4 | 5 |
| 14. People in my family said hurtful or insulting things to me. | 1 | 2 | 3 | 4 | 5 |
| 15. I believe that I was physically abused. | 1 | 2 | 3 | 4 | 5 |
| 16. I had the perfect childhood. | 1 | 2 | 3 | 4 | 5 |
| 17. I got hit or beaten so badly that it was noticed by someone like a teacher, neighbor, or doctor. | 1 | 2 | 3 | 4 | 5 |
| 18. I felt that someone in my family hated me. | 1 | 2 | 3 | 4 | 5 |
| 19. People in my family felt close to each other. | 1 | 2 | 3 | 4 | 5 |
| 20. Someone tried to touch me in a sexual way, or tried to make me touch them. | 1 | 2 | 3 | 4 | 5 |
| 21. Someone threatened to hurt me or tell lies about me unless I did something sexual with them. | 1 | 2 | 3 | 4 | 5 |
| 22. I had the best family in the world. | 1 | 2 | 3 | 4 | 5 |
| 23. Someone tried to make me do sexual things or watch sexual things. | 1 | 2 | 3 | 4 | 5 |
| 24. Someone molested me | 1 | 2 | 3 | 4 | 5 |
| 25. I believe I was emotionally abused | 1 | 2 | 3 | 4 | 5 |
| 26. There was someone to take me to the doctor if I needed it. | 1 | 2 | 3 | 4 | 5 |
| 27. I believe that I was sexually abused. | 1 | 2 | 3 | 4 | 5 |
| 28. My family was a source of strength and support. | 1 | 2 | 3 | 4 | 5 |

much time on any one question.

| | Before Age 15 | | |
|---|---|---|---|
| **Aggression** | | | |
| Bullies, threatens or intimidates others | 0 | 1 | 3 |
| Often initiates physical fights | 0 | 1 | 3 |
| Has used a weapon (bat, brick, knife, gun) that could cause serious harm | 0 | 1 | 3 |
| Has been physically cruel to people | 0 | 1 | 3 |
| Has been physically cruel to animals | 0 | 1 | 3 |
| Has stolen while confronting a victim (mugging, extortion, armed robbery) | 0 | 1 | 3 |
| Has forced someone into sexual activity | 0 | 1 | 3 |
| **Property** | | | |
| Has deliberately engaged in fire setting intending to cause serious damage | 0 | 1 | 3 |
| Deliberately destroyed property (not fire) | 0 | 1 | 3 |
| **Deceitfulness/ theft** | | | |
| Broken into someone else's house, car, etc. | 0 | 1 | 3 |
| Lies to obtain goods/ favors or to avoid obligations (cons others) | 0 | 1 | 3 |
| Stolen items of nontrivial value w/o confronting victim (shoplifting, forgery) | 0 | 1 | 3 |
| **Serious Rule Violations (i.e., Status Offenses)** | | | |
| Stays out despite parental prohibition beginning before 13 | 0 | 1 | 3 |
| Run away at least twice (once if real long) | 0 | 1 | 3 |
| Truant beginning before 13 | 0 | 1 | 3 |
| Evidence of Conduct Disorder (3 or more symptoms) | 0 | 1 | 3 |
|     Early Onset | 0 | 1 | 3 |
|     Adolescent Onset | 0 | 1 | 3 |

**ADULTHOOD TRAUMATIC EXPERIENCES: INTERVIEWER RATED**

**Key :**
0 = Inadequate information      1 = Absent/ False      3 = Threshold/ True   Current = in the last month

| Posttraumatic Stress Disorder: | Current: | | | Past: | | |
|---|---|---|---|---|---|---|
| Evidence of Posttraumatic Stress Disorder | 0 | 1 | 3 | 0 | 1 | 3 |
| Past PTSD | | | | | | |
|     Partial Remission | | | | 0 | 1 | 3 |
|     Full Remission | | | | 0 | 1 | 3 |
|     Prior History | | | | 0 | 1 | 3 |

\# of Traumas                                           Lifetime: _____

Types of Trauma (and age *first* happened):

1.  Had direct combat experience in war            Yes (1) No (0)      Age: ____
2.  Involved in life threatening accident          Yes (1) No (0)      Age: ____
3.  Involved in fire, flood, or natural disaster   Yes (1) No (0)      Age: ____
4.  Witnessed someone being badly injured or killed   Yes (1) No (0)   Age: ____
5.  Raped                                          Yes (1) No (0)      Age: ____
6.  Sexually molested                              Yes (1) No (0)      Age: ____
7.  Physically attacked or assaulted (aside from above)   Yes (1) No (0)   Age: ____
8.  Physically abused as child (aside from above)  Yes (1) No (0)      Age: ____
9.  Seriously neglected as child (aside from above)   Yes (1) No (0)   Age: ____
10. Threatened with a weapon, held captive, or kidnapped   Yes (1) No (0)   Age: ____
11. Something else: _____           Yes (1) No (0)      Age: ____
12. Great shock because happened to someone close to you   Yes (1) No (0)   Age: ____

**Alcohol Abuse and Dependence**

**Key :**
0 = Inadequate information     1 = Absent/ False     2 = Subthreshold     3 = Threshold/ True
Current = in the last month

| **Alcohol Abuse** | Lifetime | | | |
|---|---|---|---|---|
| Failure to Fulfill Obligations | 0 | 1 | 2 | 3 |
| Physically Dangerous Use | 0 | 1 | 2 | 3 |
| Legal Problems | 0 | 1 | 2 | 3 |
| Social/Interpersonal Problems | 0 | 1 | 2 | 3 |
| Lifetime Evidence of Alcohol Abuse | 0 | 1 | | 3 |
| Past Abuse | 0 | 1 | | 3 |
| Current Abuse (past month) | 0 | 1 | | 3 |

# of Threshold Sxs               Lifetime: _____
# of Subthreshold Sxs          Lifetime: _____
Age of Onset
       First Use of Alcohol            _____
       First Abuse Sxs                 _____

| **Alcohol Dependence** | Lifetime | | | |
|---|---|---|---|---|
| Larger Amounts/ Longer Periods of Drinking | 0 | 1 | 2 | 3 |
| Persistent Desire/ Unsuccessful Control | 0 | 1 | 2 | 3 |
| Excessive Activities to Obtain/Use/Recover | 0 | 1 | 2 | 3 |
| Important Activities Missed | 0 | 1 | 2 | 3 |
| Recurrent Physical/ Psychological Problems | 0 | 1 | 2 | 3 |
| Tolerance | 0 | 1 | 2 | 3 |
| Withdrawal | 0 | 1 | 2 | 3 |
| Evidence of Alcohol Dependence | 0 | 1 | | 3 |

# of Threshold Sxs               Lifetime: _____
# of Subthreshold Sxs          Lifetime: _____
Age of First Alcohol Dependence Sxs     _____

| Current Dependence: (see pg. E7 on SCID interview) | | | |
|---|---|---|---|
| With Physiological Dependence | 0 | 1 | 3 |
| Without Physiological Dependence | 0 | 1 | 3 |
| Past Dependence: (see pg. E8 on SCID interview) | | | |
| Early Full Remission | 0 | 1 | 3 |
| Early Partial Remission | 0 | 1 | 3 |
| Sustained Full Remission | 0 | 1 | 3 |
| Sustained Partial Remission | 0 | 1 | 3 |

**Drug Abuse and Dependence**

*KEY for LEVEL OF USE:*
*0 = Inadequate Information*
*1 = Drug never used or only used once*
*2 = Drug used at least twice, but less than 10 times in a one-month period*
*3 = Drug used more than 10 times in a one-month period*

**LEVEL OF USE (pg. E10 on SCID)**

| | | | | |
|---|---|---|---|---|
| Sedatives/Hypnotics/Anxiolytics | 0 | 1 | 2 | 3 |
| Cannabis | 0 | 1 | 2 | 3 |
| Stimulants | 0 | 1 | 2 | 3 |
| Opioids | 0 | 1 | 2 | 3 |
| Cocaine | 0 | 1 | 2 | 3 |
| Hallucinogens/PCP | 0 | 1 | 2 | 3 |
| Other Drugs | 0 | 1 | 2 | 3 |
| Drug Use 3+ | 0 | 1 | 2 | 3 |

**Age of First Drug Use**

| | |
|---|---|
| Sedatives/Hypnotics/Anxiolytics | _____ years old |
| Cannabis | _____ years old |
| Stimulants | _____ years old |
| Opioids | _____ years old |
| Cocaine | _____ years old |
| Hallucinogens/PCP | _____ years old |
| Other Drugs | _____ years old |
| Drug Use 3+ | _____ years old |

**Most Problematic Drug/Dependence (circle the drug assessed in the drug dependence module; only circle 1 drug)**

1 Sedatives/Hypnotics/Anxiolytics
2 Cannabis
3 Stimulants
4 Opioids
5 Cocaine
6 Hallucinogens/PCP
7 Other Drugs
8 Drug Use 3+

**Dependent Symptoms:**

| | | | | |
|---|---|---|---|---|
| Larger Amounts/Longer Period | 0 | 1 | 2 | 3 |
| Persistent Desire/Longer Period | 0 | 1 | 2 | 3 |
| Excessive Activities | 0 | 1 | 2 | 3 |
| Important Activities Missed | 0 | 1 | 2 | 3 |
| Recurrent Phys/Psych Problems | 0 | 1 | 2 | 3 |
| Tolerance | 0 | 1 | 2 | 3 |
| Withdrawal | 0 | 1 | 2 | 3 |
| Evidence of Dependence | 0 | 1 | 2 | 3 |

# of Threshold Symptoms _____

# of Sub-threshold Sxs: Lifetime_____

**SPECIFIERS:**
**Current Dependence (see pg. E18 on SCID)**

| | | | | |
|---|---|---|---|---|
| With Physiological Dependence | 0 | 1 | 2 | 3 |
| W/O Physiological Dependence | 0 | 1 | 2 | 3 |

**Past Dependence (see pg. E19 on SCID)**

| | | | | |
|---|---|---|---|---|
| Early Full Remission | 0 | 1 | 2 | 3 |
| Early Partial Remission | 0 | 1 | 2 | 3 |
| Sustained Full Remission | 0 | 1 | 2 | 3 |
| Sustained Partial Remission | 0 | 1 | 2 | 3 |
| Age at first dependence SX: | _____ | | | |

# MEASURES: DEPENDENT VARIABLES PHASE I

## LIFE HISTORY OF AGGRESSION (LHA): INTERVIEWER RATED

**Instructions**:
Conduct a "semi-structured" interview so that the following items may be rated. Please note that only reported actual behavior (e.g. verbal and/or physical) can be rated in the assessment of an item category. Aggressive thoughts, attitudes, and fantasies are not counted. It is important to rate any events that have occurred over the subject's **lifetime (including years as a teenager and young adult)**. Score only behaviors from **age 13** onward.

> 0 = no events
> 1 = one event
> 2 = "a couple" or "a few" (i.e., 2-3) events
> 3 = "several" or "some" (i.e., 4-9) events
> 4 = "many" or "numerous" (i.e., 10+) events
> 5 = "so many events that they can't be counted"

**Item Categories**:

\_\_\_\_\_ 1. Temper tantrums (i.e. behavioral manifestations in response to frustration; screaming, ranting and raving, throwing things, etc.).

\_\_\_\_\_ 2. Physical fighting (e.g. history of physical fights with other people whether or not the subject started the fight or not).

\_\_\_\_\_ 3. Verbal fighting (e.g. history of verbal arguments in which an angry voice / profanity / insults / threats are used. Polite disagreements are not to be scored as positive).

\_\_\_\_\_ 4. Specific assaults on other people NOT during a physical fight (jumping or assaulting another person without provocation).

\_\_\_\_\_ 5. Specific assaults on property (i.e., hitting / throwing / breaking objects, windows, dishes, etc.).

\_\_\_\_\_ 6a. Specific assaults on self (i.e., self-injurious, but not suicidal, in nature).

\_\_\_\_\_ 6b. Suicide attempts.

\_\_\_\_\_ 7. School disciplinary problems (e.g. reprimand by school principal, suspension, expulsion).

\_\_\_\_\_ 8. Problems with supervisors at work (e.g. behavioral outbursts in response to authority, reprimands, demotions, or terminations due to aggressive/impulsive behaviors).

\_\_\_\_\_ 9. Antisocial behavior not involving the police (e.g. lying, stealing, sexual promiscuity, involvement in illegal operations, violations of the rights of others).

\_\_\_\_\_ 10. Antisocial behavior involving the police (e.g. warnings, arrests and/or convictions for misdemeanor or felony offenses).

**Total Score:**_____**(0-55)**
Coccaro et al., 1995.

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## CRIMINAL HISTORY BASED ON PUBLIC RECORDS (*search in all states where participant has lived*)

| *DATES* | *CONVICTION?*<br>*( Y / N )* | *CRIMINAL ACTIVITY* |
|---|---|---|
| 1) _____ | _____ | **THEFT** (theft, break and enter with intent, possession of housebreaking tools, possession of stolen property, possession of items obtained by crime, loitering at night, possession of stolen credit card, retaining stolen property, shopbreaking, shoplifting, auto theft, unlawfully dwelling in house, theft by wrongful possession) |
| 2) _____ | _____ | **ROBBERY** (robbery, armed robbery, robbery with violence, extortion) |
| 3) _____ | _____ | **DRUG OFFENSES** (possession of narcotics, trafficking in a narcotic, importing narcotics, possession for the purpose of trafficking, cultivation of a narcotic) |
| 4) _____ | _____ | **ASSAULT** (assault causing bodily harm, threatening, common assault, grievous bodily harm, wounding) |
| 5) _____ | _____ | **MURDER** (first degree murder, second degree murder, manslaughter, causing bodily harm with intent to endanger life, discharging a firearm with intent to endanger life, wounding with intent) |
| 6) _____ | _____ | **POSSESSION OF WEAPON** (possession of a weapon, possession of explosives, carrying a concealed weapon, dangerous use of firearm, pointing a firearm, using a firearm) |
| 7) _____ | _____ | **SEX OFFENSES** (indecent assault, rape, incest, buggery, bestiality, carnal knowledge, committing an indecent act in public, indecent exposure, gross indecency, prostitution) |
| 8) _____ | _____ | **MAJOR DRIVING OFFENSES** (criminal negligence, driving while intoxicated, hit and run, dangerous driving, careless driving, driving while ability impaired, driving with more than 80 msg. of alcohol in blood, failure to provide breath sample, failure to remain at scene of accident, failure to stop at scene of an accident) |
| 9) _____ | _____ | **FRAUD** (fraud, forgery, false pretenses, personation, uttering a forged document, dealing with a forged document, failure to give name and address with intent, fraudulently obtaining food or lodging, making a false statement, obtaining food by fraud, using stolen credit cards) |
| 10) _____ | _____ | **ESCAPE** (escape lawful custody, unlawfully at large, breaking out of prison, failure to appear, failure to attend court, breach of recognizance, break of bail, failure to comply with probation order, breach of probation) |
| 11) _____ | _____ | **KIDNAPPING** (unlawful confinement, forcible seize, hijacking, abduction) |
| 12) _____ | _____ | **ARSON** |
| 13) _____ | _____ | **OBSTRUCTION OF JUSTICE** (perjury, assaulting a police officer, obstructing a peace officer, resisting arrest, contempt of court) |
| 14) _____ | _____ | **CRIMES AGAINST THE STATE** (treason, espionage, smuggling, evasion of income tax) |
| 15) _____ | _____ | **MISCELLANEOUS** (Vandalism, causing a disturbance, mischief, willful damage, driving while disqualified, driving while license suspended, driving while prohibited, vagrancy, living off the avails of prostitution, violation of immigration laws, bookmaking, disguised with intent) |

Registered with Sex Offender Registry:        1) YES            2) NO

**Is the history provided by the subject consistent with available public records?**            1) YES            2) NO
*(if substantial inconsistency, please contact the original interviewer right away so they can look over their PCL and other ratings)*

**PUBLIC RECORDS & INTERNET DATABASE NOTES**

CLERK OF THE CHAMPAIGN COUNTY CIRCUIT COURT: http://www.cccircuitclerk.com/

ILLINOIS DEPARTMENT OF CORRECTIONS INMATE SEARCH: http://www.idoc.state.il.us/subsections/search/default.asp

COOK COUNTY CIRCUIT COURT: https://w3.courtlink.lexisnexis.com/cookcounty/Case_Snapshot_Intro.Asp

WISCONSIN CIRCUIT COURT: http://wcca.wicourts.gov/index.xsl;jsessionid=924DD708500B88F376985F32A9333BE0.render5

DEPARTMENT OF JUSTICE NATIONAL SEX OFFENDER REGISTRY: http://www.nsopr.gov/

FAMILY WATCHDOG U.S. – NATIONAL SEX OFFENDER REGISTRY: http://www.familywatchdog.us/

# INTERVIEW PROTOCOL FOR PCL-R

(Questions in bold are specifically used to code Life History of Aggression inventory)

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<u>EDUCATION</u>

"I'd like to begin by asking you a little about school."

Were you ever restless or bored in grade school? (Y  N)

A lot of the time? (Y  N)

Was it more because you weren't interested (  ) or because it was too easy (  ) ?

Would you describe yourself as a hyperactive child? (Y   N)

Have you ever been diagnosed with ADHD?  (Y   N)

How did you get along with your teachers? Did you ever get in any verbal or physical fights with teachers or staff? (If yes, when did it begin and how many?)

How far did you get in school? Grade: _____

GED/ HSED? (Y  N) Where? _____ When? _____

Did you skip school?  (Y  N) When did you first skip school?  Age: _____ How often?

**Were you ever suspended? (Y   N)   or   expelled (Y  N) from school? (LHA: 7)**

  **1. Ages:**_____                       **1. Ages:** _____ **Total S:** _____

  **2. Reasons:**                           **2. Reasons:**                **E:**

Were you ever seen by a counselor/ doctor because of behavior problems at school or home? (Y   N)

Reasons:                      Duration:                Age:

Did you ever run away from home (overnight)?  (Y   N)  (2 or more times before 15 or if 1 time never returned)   Age at first time: _____ How many times? _____ How long? _____
_____ Longest: _____

Why did you run away? (IF NO ASK) How about staying out late, past curfew?


How would you say that you compare to most others in terms of intelligence? (Scale from 1 to 10: 1 being not so smart and 10 begin really smart)

Participant: _____ Average person knew on the street: _____ Avg. person in prison/ treatment: _____

What do you think of the other (inmates/ people in treatment/ people on probation/ parole) (in terms of intelligence/ superiority/ inferiority, etc.)? How would people describe you? How do you fit in with other people?

<u>FAMILY LIFE</u>

"Now I would like to ask you a little bit about your family while you were growing up (age 12 and younger.)"

Did you live with your parents? (Y  N)  How did they get along?  (empathy?)  How did you get along with them?  If divorced, WHEN?

Were there problems in the house ($, drugs, alcohol, hitting, name calling, etc)?  (Y  N)

Did you ever get in any physical fights with your parents? Brothers or sisters?

How did you deal with any problems?  (Could you help out with the problem?)

With regards to the other kids in your neighborhood, would you say that your situation at home was similar, better or worse?

> Do you know what your father did for a job when you were 12?

> Your Mom?

> How far did you dad go in school?

> Your Mom?

Were you pretty much doing what your (parents) wanted or were you getting in trouble a lot for not following the rules?  If so, how old were you when it started? What kinds of things were you getting in trouble for?

Were you ever removed from your home because of problems at home or school?  (Y  N)

Where?_____Group home, _____residential treatment center, _____correctional, ___

_____mental inst., _____ Other:

Ages: _____ How many times: _____ Why?

Do you have any brothers or sisters? How many (Bro:_____ ; Sis:_____ ; Step-bro:____ _____, Step-sis:_____). What was your relationship like with your bro/ sis?

What kind of contact do you have with your parents and siblings now?

Calls (Y   N): _____   visits (Y  N): _____

Letters (Y   N): _____   other (Y  N): _____

How do you feel about your relationship with your family (e.g., satisfied)?

Has your family been hurt by your (incarceration/ trouble with the law/ drug addition)? In what ways? (empathy?)

RELATIONSHIPS

LOOK FOR DEPTH HERE….

How many close friends would you say you have? _____

IF NO FRIENDS, ASK: Have you ever had a close friendship? (Y   N)

What is a close friend to you? How far can you trust those friends? Could you trust them with money or personal issues? How far could they trust you?

What's the longest friendship you've had?

Has anyone close to you ever died?  (Y   N)

How did that affect you?   How did you handle it?  Did you go to the funeral? (Y   N)

IF NO ASK: Has anyone close to you ever been seriously ill?  (Y   N)  How did that affect you? How did you handle it? Did you go to the hospital?  (Y   N)

Would you describe yourself as an emotional person?  What does it mean to you to be an emotional person? Would you say that you show your emotions openly or do you keep them to yourself?

Do you feel a wide range of emotions or do you generally just feel a specific emotion?

 Do your feelings run deep and really stick with you for a long time or do they come and go, and not affect you much?

Has anyone ever told you that you had an anger/ temper problem?  Do you agree with them?

If YES, do you have a short temper? Or does it slowly build up and then you explode? Have you ever been recommended for anger management treatment?

Would you describe yourself as a charming person (e.g., persuasive, good with words, smooth talker)? Have you ever turned on the charm to get something that you wanted? What kinds of things? What's the coolest thing you've ever been able to get from someone using your charm?

PARENTHOOD

Have you ever had any children?  (Y   N)  # Boys: _____   # Girls: _____

How old are they?  Boys: _____  Girls: _____

How many mothers? _____

Are you married to the mother (or any of the mothers)? (Y   N) Have you ever been?

Where are your kids now? Do you still have a legal right to see them? (Y  N) If not, why not?

How do (did) you support them? Have you ever had to pay formal child support?

How do you feel about how you've raised your kid(s) when you were on the streets?

Would you say that your kids always had everything that they needed like enough food, clothes, medical care, and fun things? (Y   N)  If no, what happened?

<u>SEXUAL HISTORY</u>

Have you ever been married? (Y  N);  How many times? _____; How long with each?

IF NEVER MARRIED: Have you ever lived with someone you were sexually involved with?

(Y N)

How old were you the first time you lived with a sexual partner? _____

How long did you live together? _____ What happened with that relationship?

Has there been anyone else that you've lived with (besides the first sexual partner)? (Y  N) How many? __
_____. IF YES: how long did they each last?

For you, what does it take to make a relationship work?

Who's the woman/ man/ partner that you've felt the closest to? (IF NO ROMANCE, ASK: Who's the friend that you've felt the closest to?) What was/is the relationship like? Activities?

What's really special about this person?

**Over the years, (in your own opinion) have you had many sexual partners?  (Y  N) LHA: 9**

**What is the maximum number of partners you've had in one year's time?**

**What is typical for you in a year's time?**

**(10 or more different sexual partners in one year's time? Y  N)**

What attracts you to a sexual partner?

How old were you when you first had consensual sexual intercourse? _____ Was that in a relationship? (Y  N) How long did that relationship last? _____

**Was she/he your only sexual partner before 15? (Y  N) or did you have many? (Y  N)**

What is the longest time you've been involved with just one person, without seeing anyone else at the same time? _____

**Have you ever been in two or more sexual relationships at the same time? (Y  N) Without the others knowing about it? (Y  N)  What was that like?**

**Now I want to ask you about some other kinds of sexual experiences:**

  **Have you ever had: gay sex? (Y  N) sex with friends' wives/husbands or girlfriends/**

  **boyfriends? (Y  N)  group sex? (Y  N)**

  **anyone much older than you (more than 5 years)? (Y  N)**

WORK HISTORY

Tell me briefly what kinds of jobs you've had since you were 15.

What are the different reasons you've changed jobs over the years? Did you ever just get bored and quit?

For any of these jobs, did you ever miss work a lot or come in late a lot? (Y N)

Have you ever been fired? (Y  N)  What happened?

Have you ever been drunk or high while at work? (Y  N)

Have you ever quit a job without having another one lined up? (Y  N)

        IF YES: how many times? _____


Given your education, work history, and job training, how well paid were you for your work?

How do you feel about the way you were treated at these jobs? Were you mistreated?

**How did you get along with your supervisors? Did you ever have behavioral outbursts in response to authority? What about reprimands, demotions, or terminations due to aggressive/impulsive behaviors? (LHA: 8)**

What's the longest that you stayed at one job? _____ What job was it?

If you were ever out of work, how were you getting by?

Have you ever collected welfare? (Y  N) or unemployment? (Y  N)

For how long? (W) _____ (U) _____

Have your friends or relatives ever supported you or helped you out financially? (Y   N)

What kind of help have they given you and for how long?

Is it difficult for you to feel like you need to depend on people for help or money? (Y   N)

Have you tended to stay in one place or do you like to move around a lot?

How often have you moved?

Have you ever moved or traveled without telling family or friends? (Y   N) How many times? _____

Have you ever just hit the road without a plan for where you were going? (Y   N) How many times? _____
_____

Was there ever a time when you didn't pay your bills like: rent? (Y   N) utilities? (Y   N) child support? (Y   N) hospital bills? (Y   N) other bills? (Y   N)

IF YES: why didn't you pay your bills?

Have you ever owed people money and not paid them back? (Y   N) How much do you owe them?

What are your long-term goals related to work? What would you need to do that? What problems might you have in achieving your work goals? What will it take to achieve these goals?

Where do you see yourself in 5 or 10 years?

CRIMINAL HISTORY

Have you ever engaged in illegal activity that you got in trouble for? IF NO: Have you ever been sent to treatment?

Why were/ are you in prison or why were/are you in drug treatment? What lead up to that? Why did you commit this offense or take drugs?

Who or what is to blame for what happened?

How do you feel about what happened?

Was it something that you planned out or was it spur of the moment?

What about other illegal things you've been involved in, have they been planned out of were they more spur of the moment?

In general, would you describe yourself as a thinker or more of a spontaneous/ impulsive person?

What was your sentence/ treatment length? How did the judge/ PO/DA or someone else handle the case?

Do you think overall your case was handled more fairly or more unfairly?

Do you think there will be consequences for having a felony on your record or being in treatment? (Y  N)

Have you ever violated parole? (Y  N)  Been revoked? (Y  N) Why?

What effect did your offense have on others? What about the victim? People close to you? Were you able to help out those hurt by your offense?

Now I want to ask you about different kinds of offenses, regardless of whether you have been charged with them, just whether you've ever done them. I want to know only about what has happened since you turned 15.

Have you ever driven a car under the influence? (Y  N) (#tickets? _____ ; ages: _____ )

How many speeding? _____ or traffic violations? _____

Do you like to speed? (Y N)

**How many physical fights have you been in since you turned 15? LHA: 2 _____**

Have you ever hit or thrown things at your spouse/ partner? (Y  N) #_____

Have you ever hit a child, yours or someone else's so hard that he/ she had bruises or had to stay in bed or see a doctor? (Y  N) #_____

**How may verbal fights have you been in since you turned 15? (e.g. angry voice / profanity / insults / threats are used).  LHA: 3 _____**

Do you tend to get into fights when you're drinking on using drugs? _____

What percentage of the fights you had involved drugs or alcohol? _____

What percentage of the fights would you say you started? _____

What percentage of the fights did you use a weapon? _____

What's the worst thing you've ever done in a fight?

**Did you ever get in any temper tantrums when you were frustrated? (i.e. screaming, ranting and raving, throwing things, etc.). How many times?  LHA: 1**

**Have you ever assaulted another person, whether during a physical fight or not? How many times? Who and why? LHA: 4 _____**

Was there ever a time that you were making more money illegally than at a legal job? (Y  N)

What were you doing and for how long? Drugs: _____ Pimping:_____

Prostitution: _____ Fencing of stolen goods: _____

Have you ever done any burglaries? (Y  N) How many?

Have you ever used an alias or gone by another name? (Y  N) What were you using the other name for? Have you done this more than once and if so, how many times?

Have you ever made money hustling people? (Y  N) (e.g., pool, cards, dice?)

How about conning people? (Y  N)

IF YES: tell me about your cons…

Can you fool people easily when you want to? (Y  N) Can you give me an example?

Do you ever do it just for fun?

Do you tend to get what you want from women? (Y  N) What kinds of things do you get from women? Have you ever told a woman what she wanted to hear just to get what you wanted from her? Have you ever lived off women?

What do you think of people who can be cheated or conned?

**How old were you the first time you were ever arrested?** _____ **What was it for?**

**Is there anything on your juvenile record? LHA: 10**


**What about your adult record? LHA: 10**

How do you feel when you are doing something illegal? (e.g., nervous, excited scared? )
Do you like doing things that are crazy/ exciting or illegal? Would you describe yourself as thrill seeker?

Have you ever done anything that made you feel guilty or that you were sorry that you had done? Other than crime? IF YES: what did you do? Why did you feel badly about it?

Overall what would you say is the main cause of your involvement in illegal activity?

How much would you say using drugs or alcohol has contributed to your breaking the law?

I'm going to ask you about a list of activities and I want to know whether or not you ever did them. First, I'll ask if you ever done something in your lifetime. If you have, I'll then ask if you did it before you were 15 years old, then before 13 years old and then before 10 years old.

| EVER | <15 | <13 | <10 | |
|---|---|---|---|---|
| Y N | Y N | Y N | Y N | Did you ever steal anything by breaking into someone else's car, home or building? How many times? _____ |
| Y N | Y N | Y N | Y N | Did you ever shoplift? How many times? _____ |
| Y N | Y N | Y N | Y N | Did you ever forge someone's name to get money? How many times? _____ |
| Y N | Y N | Y N | Y N | Did you ever threaten anyone to get them to give you money or physically take something? How many times? _____ |
| **Y N** | **Y N** | **Y N** | **Y N** | **Have you ever done any vandalism? What about breaking things when angry? (break windows, throw dishes, destroy property)? How many times? LHA: 5** _____ |
| Y N | Y N | Y N | Y N | Did you more than once start fights or get in trouble for fighting? How many times? _____ |
| Y N | Y N | Y N | Y N | Did you ever use a weapon like a bat, brick, knife or gun that could cause serious harm? How many times? _____ |
| Y N | Y N | Y N | Y N | Did you ever force or pressure someone to have sex w/ you? How many times? _____ |
| **Y N** | **Y N** | **Y N** | **Y N** | **Did you ever hurt animals on purpose (other than hunting)? How many times?** _____ **LHA: 4** |
| Y N | Y N | Y N | Y N | Did you ever hurt another person on purpose (i.e., retaliation)? Was that always in a fight? (Y N) How many times? _____ |
| Y N | Y N | Y N | Y N | Did you ever set any fires on purpose? How many times? _____ |
| Y N | Y N | Y N | Y N | Everyone tells a few lies, did you tell a lot of lies to get goods/favors or to avoid obligations (to get out of trouble)? (other than to avoid physical or sexual abuse)? How many times? _____ Are you good at lying? (Y  N) |
| Y N | Y N | Y N | Y N | Did you often bully, threaten or intimidate others? How many times? _____ |

APPENDIX D

## Qualitative Interview Protocol

**WOMEN'S USE OF VIOLENCE QUALITATIVE PROTOCOL**

[NOTE: THIS IS A QUALITATIVE INTERVIEW PROTOCOL. WHILE THE QUESTIONS ARE PRESENTED HERE WITH SPECIFIC PHRASING AND IN A PARTICULAR ORDER, WE ARE LIKELY TO DEVIATE FROM THIS PROTOCOL AS APPROPRIATE TO THE CONVERSATION WITH OUR PARTICIPANTS. THIS MIGHT INVOLVE PRESENTING THESE QUESTIONS AT DIFFERENT POINTS IN TIME AND WITH DIFFERENT WORDING. HOWEVER, THE QUESTIONS WE ASK WILL BE ENTIRELY WITHIN THE SPIRIT OF THE CURRENT PROTOCOL.]

**(A) WARM UP QUESTIONS**

How have you been since your last interview with our team?

What's one good thing going on in your life right now?

What's one thing that's on your mind or causing you worry right now?

**(B) SHAPING EXPERIENCES / EVENTS**

Tell me about an experience or event that you think was very important in your life. What experience has most shaped your life up until now?

Tell me about one of the most difficult things you have gone through in your life. What about it makes it the most difficult?

Tell me about one of the most wonderful or happy things that you have experienced in your life. What about it makes it the most wonderful or happy?

What does the phrase "turning point" mean to you? Do you think there have been any turning points in your life? During your youth? During adulthood?

What do you think has been a central theme in your life? Is there a pattern that characterizes your life up until now?

**(C) RELATIONSHIPS AND "CRUCIAL CONTEXTS" (i.e., gender salient contexts)**

*Relationships*

Tell me about one of your most important non-romantic relationships. What was it like?

What were some of the most positive things about this relationship for you?

What were some of the most negative things about his relationship for you?

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Tell me about one of your most important romantic relationships. What was it like?

What did you get from this relationship?

What were some of the most positive things about this relationship for you? What comes to mind about this relationship when you think of positive things, like love, support, and safety?

What were some of the most negative things about his relationship for you? What comes to mind about this relationship when you think of negative things, like sadness or anger?

Have you ever been in a relationship where you used violence or violence was used against you? [If yes], tell me about these experiences [start with the most "memorable" one]?

Have you ever been cheated on in a relationship? Tell me about what happened. In what ways did cheating lead to anger? In what ways did you or your partner act on that anger physically?

Have you ever cheated on a partner? Tell me about what happened. In what ways did cheating lead to anger? In what ways did you or your partner act on that anger physically?


*Crucial Contexts*

Tell me about any [other] ways in which men have shaped your life. How do you think relationships with men have affected you?

Have you ever been in an abusive romantic relationship? Been hit or experienced violence at the hands of another person? Tell me about this experience.

Was there ever a time when you felt forced to engage in a sexual act when you didn't really want to?

Was there ever a time when you engaged in a sex act for money? For drugs?

What does the phrase "this is a man's world" mean to you? Do you agree with it? Do you think your life has unfolded "in a man's world?" How so?


## (D) VIOLENT ACTS

When was the last time you did something that you or others might consider violent? Have you ever hit someone? Ever threatened someone with a weapon?

Tell me about what led up to this act?

What, if anything, were you trying to communicate by [describe act – e.g., hitting a woman]? In other words, what message did you want to get across? What did you want to "say"?

What did you hope would happen?

What were your reasons for committing this act? Do you feel like you had other options to violence?

Tell me about what this act resulted in?

Sometimes people say that showing a serious response like violence actually brings about positive things. Was this the case for you? Was using violence rewarding in any way?

Did it result in negative things as well? What did engaging in this violence cost you?

**(E) PATHWAYS TO VIOLENCE**

[For these questions, probe for the sequence of events – what came before or after]

*Running away*

Thinking about your youth, tell me about a time when you might have run away from home or left for awhile without permission?

[if yes] Where did you go?

Tell me about what happened when you ran away. Did it make things better? Worse? Both?

*Fighting*

Tell me about a time when you might have been in a physical fights during your youth? Did you fight people at school or at home?

[If yes] What was the fight over (or: What were the fights usually over?)

Tell me about what happened when you fought. Did it make things better? Worse? Both?

*Adult Trauma*

Have you ever had an experience that you would consider traumatic? Tell me about it.

During your last interview, you said that you [discuss previously reported traumatic events]. Can you tell me a bit about what was going on in your life when [victimization experience] occurred?

*Substance Use*

Have drugs or alcohol ever caused you problems, in your own opinion? Tell me about it.

Have you ever used drugs or alcohol to make bad feelings or thoughts go away? To calm your mind? To help you cope with things going on in your life? Tell me about that.

*Summary*

Do you think any of these experiences [LIST WHAT THEY ENDORSED: running away, fighting, traumatic events, or substance use] has contributed to your use of violence? How so?

# APPENDIX E

## Qualitative Interview Field Note Template

### FIELD NOTES/MEMOS

**TIME, PLACE, AND CONTEXT**

1) Describe salient aspects of the interview context. What was the climate and tone?
2) Describe how you experienced the interviewee. What was your connection like? What assumptions did/do you have about her?
3) Describe how you think the interviewee experinced you. How do you think she experienced your connection? What assumptions do you think she had about you?

**A PORTRAIT OF THE INTERVIEWEE**

1) What characterizes the central theme in the interviewee's life
2) What has most shaped her life?
3) What are her turning points?
4) Describe her in a few sentences: "She is…

**ACTS OF VIOLENCE**

1) Tell the story of each act of violence as she described it.
2) How did the interviewee describe her own acts of violence? What phrases or paraphrases did she use to describe the acts themselves?
3) How did the interviewee describe the purposes/reasons behind her violence? What phrases or paraphrases did she use to describe the purposes/reasons behind her acts?
4) How did the interviewee describe the meaning being her violence? What, if anything, was she trying to communcate?
5) How did the interviewee describe the consequences of her violence? What did the act of violence result in? What were the costs for her? What were the benefits for her?

**PATHWAYS TO VIOLENCE**

1) Draw her individualized path model
2) How are abuse, running away, figthing, conduct problems, trauma, and drugs/alcohol implicated? Related? Attend to the sequence.
3) Other than these factors, what other expereinces are important in her path model?
4) What is the process by which one experience led to another? Use her own phrases and paraphrases.
5) Which experience is most critical in this path?

**GENDER AS SOCIO-STRUCTURAL CATEGORY**

1) In what ways, if any, did gender organizer her interperesonal relationships (both romantic and non-romantic)?
    a. What "binds" did gender create?
    b. How did gender shape her social power?
    c. Is there a paradox to be explored (e.g., using force to create intimacy)?
2) In what ways, if any, did gender organize her opportunity structures?
    a. What "binds" did gender create?
    b. How did gender shape her social power?
    c. Is there a paradox to be explored (e.g., justifying acts of oppression by virtue of one's own oppression)?
3) What were some gender-saleint/crucial contexts experienced by the interviewee?
    a. In what ways did these experiences relate to violence?
    b. In what ways did these experiences affect her life more broadly?

## NEGATIVE CASES

1) What examples contradict emerging theory about women's use of violence?
2) Did crucial contexts ever protect from violence?
3) What about this interviewee's experiences were gender incongruent?

## THEORETICAL CONCEPTS

1) Based on this interview, how would you answer this question: "Why do women use violence?"
2) What are the emerging theoretical concepts around violence and gender (e.g., violence as a paradoxical act: invoking power to resist powerlessness). Ground in examples, phrases/paraphrases.
3) What questions do you want to ask in the next interview based on what you learned here:
    - 
    - 
    - 
    - 
    -

**Informed Consent Documents**

**Consent Form for Phase 1: Jail Detainees**

**Title of Research**:     Environmental and biological contributors to behavior and personality.
**Principal Investigator**:   Edelyn Verona, Ph.D., Assistant Professor, Department of Psychology,
           603 E. Daniel Street, Champaign, IL 61820, 217-265-6708,
           everona@uiuc.edu

*Please read this consent form carefully. You must be 18 years of age or older to participate.*

**Purpose of the Research:**  This study is designed to investigate the effects of environmental and biological influences on personality traits, mental health, and cognitive functioning.

**Procedures for the Research**:
   If you agree to participate, we will ask you to swab your cheek with a large Q-tip. This is so we can obtain DNA samples to analyze for genes related to chemical messengers in your brain (called neurotransmitters)—to see how they affect your behavior. This procedure is completely painless and quick. We cannot give you information about your particular sample, because we only analyze group data.  All samples are kept in locked cabinets, and we will destroy the samples after we analyze them for important genes. At the end of data collection, it will be impossible to connect your data with any identifying information. In rare situations, your data may be requested by the courts (subpoena). The chances are low of this happening. But we will not keep any names or other identifying information on our forms or cheek cell samples so they could not be connected you. Also the cheek cell samples will be destroyed right after they are analyzed so they cannot be used by others. The cheek cell samples will NOT be shared with staff at the jail.
   Following the check swab, you will complete some forms and answer some questions. We will be audio-taping (using cassette tapes) the interviews, if you consent to this. The forms and interview questions will ask you about your childhood, work history, social life, legal history, and emotions. Some of the questions may be sensitive or private. For example, we may ask you questions about abuse, suicidal thoughts, illegal behaviors and mental health symptoms. You can refuse to answer any of these questions. However, we will not tell anyone, including jail staff, about what you tell us or your answers to any questions in the study, except if you tell us a child, elderly or disabled person is being abused or there is imminent danger to you or another person. Deciding not to participate or not to complete the research will have no effect on the terms of your incarceration or consideration for probation/ parole.
   To further help us protect your privacy, we have obtained a Certificate of Confidentiality from the National Institutes of Health. This form allows us to resist any attempts by lawyers or judges to identify you. We cannot be forced to give over any information or data about you, even by a court subpoena. The Certificate cannot be used to resist a demand for information from the US government that is used to evaluate the project. You can still choose to release information about yourself if you want to do that. If an insurer, employer or other person obtains your written consent to receive research information, then we will provide that information to them.

This study will take approximately 3 hours to complete. You will be paid $20 for your participation.

**Potential Risks or Discomforts and Conditions of Participation**:  Any risks associated with participation were described above. As we mentioned, you may experience some distress if discussing sensitive issues, like mental health, legal problems, or child abuse. Please feel free to express any concerns about this to us. You can stop your participation in the study at any time without losing any benefits.  No one will hold it against you if you decline to participate or withdraw from participating in this study, and your decision to accept or decline the offer to participate will not be communicated to jail staff.

If you have any concerns about how you cope with life, and you would like to talk to someone about it, you can contact the following on-campus and community facilities. If you are interested in receiving services, let us know. If you want, we can help connect you to these agencies.

1) Community Elements Crisis Line (emergency 24 hour services),  217-359-4141
2) University of Illinois Psychological Services Center, 505 E. Green Street, Champaign, IL 61820, (217) 333-0041
3) Community Elements of Champaign County, 1801 Fox Drive, Champaign, IL 61821, (217) 398-8080

Also, we are willing to provide you with a written mental health evaluation upon completion of the study, if you would like one.

**Confidentiality**: This is what we are doing to protect your privacy:
   1). To protect your privacy, we will assign you a number to be used in place of your name on all materials.
   2)  No one will be given information about you or your responses unless you direct us to do so in writing.
   3). If the results are published, your name will never appear in any journals or publications.
   4). All data will be stored under lock and key.
   5) It is unlikely that the courts will subpoena the records. But, in case this happens, we will not place your name on any forms. We will destroy the cheek cell samples after they are analyzed. We will not inform anyone (including probation or mental health agencies) that you participated in the study.

The only time we would have to tell someone about what you say is if a child, elderly or disabled person is being abused or you are going to hurt yourself or others. We will only inform someone if there is imminent danger to you or another person.

**Potential Benefits to You or to Others**:  You do not get any direct benefits from participating. However, we expect to learn a lot about how genes and environment affect behaviors and emotions. If you would like to know our results, you can ask for group results, but not individual results, when the study is completed.

**Questions and Explanations**:  In the future, you may contact Dr. Edelyn Verona, Assistant Professor of Psychology to discuss any aspect of this experiment by phone or email (217-265-6708, everona@uiuc.edu).

Your signature indicates that you have been given the opportunity to ask any questions you may have concerning the experiment and the conditions of participation, and that these questions, if any, have been answered to your satisfaction. You are invited to contact the IRB office (217-333-2670); irb@uiuc.edu) for information about the rights of human subjects.

CONSENT TO AUDIOTAPE
___ Yes, my interview may be audio taped.
___ No, my interview may not be audio taped.

CONSENT TO PARTICIPATE

I have read and understood this consent form, and I freely and voluntarily consent to be a participant in the above-named project being conducted at the University of Illinois at Urbana-Champaign. I am also 18 years of age or older. I know that deciding not to participate or not to complete the research will have no effect on the terms of my incarceration or consideration for probation/ parole. I have been given a copy of this consent form.

_____

Signature of Participant                                  Date

_____

Signature of Witness                                  Date

**Title of Research**:          Environmental and biological contributors to behavior and personality.
**Principal Investigator**:       Edelyn Verona, Ph.D., Assistant Professor, Department of Psychology,
                                     603 E. Daniel Street, Champaign, IL 61820, 217-265-6708,
                                     everona@uiuc.edu

*Please read this consent form carefully. You must be 18 years of age or older to participate.*

**Purpose of the Research:** This study is designed to investigate the effects of environmental and biological influences on personality traits, mental health, and cognitive functioning.

**Procedures for the Research**:
       If you agree to participate, we will ask you to swab your cheek with a large Q-tip. This is so we can obtain DNA samples to analyze for genes related to chemical messengers in your brain (called neurotransmitters)—to see how they affect your behavior. This procedure is completely painless and quick. We cannot give you information about your particular sample, because we only analyze group data.  All samples are kept in locked cabinets, and we will destroy the samples after we analyze them for important genes. At the end of data collection, it will be impossible to connect your data with any identifying information. In rare situations, your data may be requested by the courts (subpoena). The chances are low of this happening. But we will not keep any names or other identifying information on our forms or cheek cell samples so they could not be connected you. Also the cheek cell samples will be destroyed right after they are analyzed so they cannot be used by others.
       Following the check swab, you will complete some forms and answer some questions. We will be audio-taping (using cassette tapes) the interviews. The forms and interview questions will ask you about your childhood, work history, social life, legal history, and emotions. Some of the questions may be sensitive or private. For example, we may ask you questions about abuse, suicidal thoughts, illegal behaviors and mental health symptoms. You can refuse to answer any of these questions. However, your responses are completely private.
       This study will take approximately 3 hours to complete. You will be paid $15 for each hour of your participation.

**Potential Risks or Discomforts and Conditions of Participation**: Any risks associated with participation were described above. As we mentioned, you may experience some distress if discussing sensitive issues, like mental health, legal problems, or child abuse. Please feel free to express any concerns about this to us. You can stop your participation in the study at any time without losing any benefits.  No one will hold it against you if you decline to participate or withdraw from participating in this study.

If you have any concerns about how you cope with life, and you would like to talk to someone about it, you can contact the following on-campus and community facilities. If you are interested in receiving services, let us know. If you want, we can help connect you to these agencies.

1) Community Elements Crisis Line (emergency 24 hour services),  217-359-4141
2) University of Illinois Psychological Services Center, 505 E. Green Street, Champaign, IL 61820, (217) 333-0041
3) Community Elements of Champaign County, 1801 Fox Drive, Champaign, IL 61821, (217) 398-8080

4) <u>For U of I university students only</u>: University of Illinois Student Counseling Center, 610 John Street, 110 Student Services Building, Champaign, IL, 61820, (217) 333-3704

**Confidentiality**: This is what we are doing to protect your privacy:

1). To protect your privacy, we will assign you a number to be used in place of your name on all materials.

2) No one will be given information about you or your responses unless you direct us to do so in writing.

3). If the results are published, your name will never appear in any journals or publications.

4). All data will be stored under lock and key.

5) It is unlikely that the courts will subpoena the records. But, in case this happens, we will not place your name on any forms. We will destroy the cheek cell samples after they are analyzed. We will not inform anyone (including probation or mental health agencies) that you participated in the study.

To further help us protect your privacy, we have obtained a Certificate of Confidentiality from the National Institutes of Health. This form allows us to resist any attempts by lawyers or judges to identify you. We cannot be forced to give over any information or data about you, even by a court subpoena. The Certificate cannot be used to resist a demand for information from the US government that is used to evaluate the project. You can still choose to release information about yourself if you want to do that. If an insurer, employer or other person obtains your written consent to receive research information, then we will provide that information to them.

The only time we would have to tell someone about what you say is if a child, elderly or disabled person is being abused or you are going to hurt yourself or others. We will only inform someone if there is imminent danger to you or another person.

**Potential Benefits to You or to Others**: You do not get any direct benefits from participating. However, we expect to learn a lot about how genes and environment affect behaviors and emotions. If you would like to know our results, you can ask for group results, but not individual results, when the study is completed.

**Questions and Explanations**: In the future, you may contact Dr. Edelyn Verona, Assistant Professor of Psychology to discuss any aspect of this experiment by phone or email (217-265-6708, everona@uiuc.edu).

Your signature indicates that you have been given the opportunity to ask any questions you may have concerning the experiment and the conditions of participation, and that these questions, if any, have been answered to your satisfaction. You are invited to contact the IRB office (217-333-2670; irb@uiuc.edu) for information about the rights of human subjects.

<u>CONSENT TO AUDIOTAPE</u>

___ Yes, my interview may be audio taped.

___ No, my interview may not be audio taped.

<u>CONSENT TO PARTICIPATE</u>

I have read and understood this consent form, and I freely and voluntarily consent to be a participant in the above-named project being conducted at the University of Illinois at Urbana-Champaign. I am also 18 years of age or older. I have been given a copy of this consent form.

Signature of Participant                    Date

_____

Signature of Witness                        Date

**Consent Form for Phase 2C**

**Title of Research**:  Environmental and biological contributors to behavior and personality

**Principal Investigator**:  Edelyn Verona, Ph.D., Associate Professor, Department of Psychology, 603 E. Daniel Street, Champaign, IL 61820, 217-265-6708, everona@illinois.edu

*Please read this consent form carefully. You must be 18 years of age or older to participate.*

**Purpose of the Research:**  This study investigates women's experiences, particularly in relation to relationships and violence. We are interested in how different life circumstances and events relate to strategies women use to deal with different experiences in their lives.

**Procedures for the Research:**  If you agree to participate, you will be asked to complete an interview with a female research interviewer. She will ask you about different life experiences you have had, including important relationships and events in your life. With your permission, your voice will be recorded so that we can capture everything you are saying. Your participation in this interview is totally voluntary and you can skip questions or stop the interview or the recording of your voice at any time.

**Compensation**: This study will take under 150 minutes (about 2.5 hours) to complete. You will be paid $15 for each hour of participation.

**Potential Risks or Discomforts and Conditions of Participation**:  A few of the questions within the interview may ask you to give information that is sensitive and private. You may or may not wish to answer these questions. This is totally up to you.

You can stop your participation in the study at any time without losing any benefits.  No one will hold it against you if you decline to participate or withdraw from participating in this study. If you decide to withdraw from the study, this will have no effect on your status at or your relationship with the University of Illinois or with other agencies with which you are affiliated.

If you have any concerns about how you cope with various situations, and you would like to talk to someone about it, you can contact the following on-campus and community facilities:

1) Community Elements Crisis Line (emergency 24 hour services),  217-359-4141

2) University of Illinois Psychological Services Center, 505 E. Green Street, Champaign, IL 61820, (217) 333-0041

3) Community Elements of Champaign County, 1801 Fox Drive, Champaign, IL 61821, (217) 398-8080

4) For U of I university students only: University of Illinois Student Counseling Center, 610 John Street, 110 Student Services Building, Champaign, IL, 61820, (217) 333-3704

**Confidentiality**: Your data are to be coded by numbers only and no names will be identified in any report.  All data will be stored under lock and key.  All information gathered in this research will be kept confidential. It is possible that some information obtained from these studies will be published in the scientific literature.  If so, your name will not be used.

To help us protect your privacy, we have obtained a Certificate of Confidentiality from the National Institutes of Health. This form allows us to resist any attempts by lawyers or judges to identify you. We cannot be forced to give over any information or data about you, even by a court subpoena. The Certificate cannot be used to resist a demand for information from the US government that is used to evaluate the project. You can still choose to release information about yourself if you want to do that. If an insurer, employer or other person obtains your written consent to receive research information, then we will provide that information to them. We will not tell anyone about your participation in this study unless you want us to. There are a few pieces of information, however, that we might have to report to authorities. This includes if you tell us about the abuse or neglect of a child under the age of 18, or if you tell us that you are going to hurt yourself or others.

**Potential Benefits to You or to Others**:  You do not get any direct benefits from participating. However, we expect to learn a lot about women's lives and their use of violence.  If you would like to know our results, you can ask for group results, but not individual results, when the study is completed.

**Questions and Explanations**:  In the future, you may contact Dr. Edelyn Verona, Associate Professor of Psychology to discuss any aspect of this experiment.

Your signature indicates that you have been given the opportunity to ask any questions you may have concerning the experiment and the conditions of participation. These questions, if any, have been answered to your satisfaction. You are invited to contact the IRB office (217-333-2670); irb@uiuc.edu) for information about the rights of human subjects.

I have read and understood this consent form, and I freely and voluntarily consent to be a participant in the above-named project being conducted at the University of Illinois at Urbana-Champaign. I am also 18 years of age or older. I have been given a copy of this consent form.


_____

Signature of Participant                               Date


_____

Signature of Witness                                  Date