

ABSTRACT

Title of Thesis: CLARIFYING THE PATHWAYS TO
POLYVICTIMIZATION: THE ROLE OF
PARENTAL CRIMINALITY

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Polyvictimization, an individual's experience of multiple types of victimization, has been of increasing interest in victimology over the past decade. Several studies have been conducted to examine the consequences of polyvictimization, but comparatively less attention has been paid to the risk factors for polyvictimization. Based on its relationship with offending and based on work highlighting the family as a salient context of victimization, the present study will focus on one particular potential risk factor: parental criminality. Using data from the National Survey of Adolescents, the thesis tests whether there is a relationship between parental criminality and polyvictimization. It also tests whether gender moderates that relationship, as little research has tested gender differences in risk of polyvictimization. Logistic regression models demonstrate a significant relationship between parental criminality and polyvictimization, but do not support the hypothesis that gender moderates the relationship.

CLARIFYING THE PATHWAYS TO POLYVICTIMIZATION: THE ROLE OF
PARENTAL CRIMINALITY

by

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Chapter 1: Introduction

Victimization has been a critical point of study in criminology, though most research and policy has tended to focus on individual types of victimization (i.e., sexual assault, intimate partner violence, or homicide). Beginning in 2005, Finkelhor, Ormrod, Turner, and Hamby undertook research on childhood victimization experiences, finding a distinct subgroup of child victims who had experienced multiple types of victimizations. They termed this phenomenon *polyvictimization* (sometimes written as poly-victimization) and the children, poly-victims (Finkelhor et al., 2005). Polyvictimization is defined as an individual's experience of multiple forms of victimization; operationalization of *multiple* depends on the sample at hand (DeHart & Moran, 2015; Finkelhor et al., 2005; Finkelhor et al., 2007; Ford et al., 2010; Richmond et al., 2008).

Since Finkelhor et al.'s (2005) study, polyvictimization has become a more common focus point in the victimology literature, especially as it relates to trauma (Finkelhor et al., 2007). As part of this effort to study polyvictimization, some attention has been paid to risk factors for polyvictimization. Finkelhor et al. (2009) hypothesized four distinct pathways that lead individuals to become poly-victims: dangerous community, dangerous family, family problems, and behavioral/emotional problems (p.319-20). Each of the four pathways was made up of several "pathway indicators" that the researchers believed were reflective of the pathways themselves (Finkelhor et al., 2009, p.319). All of the pathways were found to be significantly associated with polyvictimization, but the individual pathway indicators were not

tested, leaving questions about the specific risk factors for polyvictimization, a question that this study will attempt to clarify.

In terms of potential risk factors for polyvictimization, criminology has a long history of studying criminogenic family factors, including parental criminality (Laub & Sampson, 1988; McCord, 1991; Wilson, 1975). Parental criminality is often discussed in terms of the intergenerational transmission of delinquent and criminal behavior (Farrington et al., 2009; Junger et al., 2013; Thornberry et al., 2003). Comparatively less attention, however, has been paid to the relationship between parental criminality and victimization, though developmental victimologists note that the family is a salient context, or “ecological niche,” in which childhood victimization occurs (Finkelhor, 2007, p.23). However, research on the relationship between victimization and offending suggests that many of the risk factors for offending are, similarly, risk factors for victimization (Jennings et al., 2010). With that in mind, and considering the findings of from Finkelhor et al.’s (2009) pathways to polyvictimization study, one might expect there to be a relationship between parental criminality and polyvictimization.

Little is known about the specific relationship between having criminal parents and experiencing polyvictimization. While Finkelhor et al. (2009) did find support for the family problems pathway to polyvictimization, the study did not account for which of the pathway indicators were significant predictors of polyvictimization. In addition, parental criminality was limited to having a parent incarcerated within the past year, which is arguably quite a narrow view of parental criminality. Parental criminality’s influence may occur over a longer time frame than

one year. Further, parental incarceration may not be only type of criminality that is influential in predicting polyvictimization.

Additionally, a fundamental limitation of the polyvictimization literature is that it has failed to account for gender differences in polyvictimization predictors. The polyvictimization pathways study, for instance, did not investigate whether different pathways were more predictive for one gender or the other (Finkelhor et al., 2009). Some studies (DeHart, 2008; DeHart & Moran, 2015; Raddatz & Wilson, 2015; Richmond, 2008) have focused on the experiences of females — often those involved in the criminal or juvenile justice system — who have been polyvictimized, but do not include a male comparison group. While valuable information about female poly-victims has been gained from those studies, they still do not clarify the issue of whether the risk factors for polyvictimization differ for males and females. Given that research has noted some gender differences in risk factors for offending and victimization (Belknap & Holsinger, 2006), it is important to investigate possible gender differences in risk factors for polyvictimization.

The present study is an effort to clarify one facet of the pathways to polyvictimization. It will test the relationship between parental criminality and polyvictimization and will additionally assess whether gender moderates the relationship. This study will contribute to the literature by looking at parental criminality as a risk factor for polyvictimization independent of delinquency. An additional contribution of this will be its use of multiple ways of measuring concepts. Both the dependent and main independent variables will be measured in multiple ways in order to gain a clearer picture of the relationships of interest. The following

section will review the relevant existing literature and discuss the theoretical framework of the research questions. Then, the research questions and hypotheses will be outlined. Following that will be a description of the dataset, sample, and measures that will be used, as well as a discussion of the analytic models and techniques. Results of each analysis will be presented. Finally, limitations and directions for future research will be discussed.

Chapter 2: Literature Review

Polyvictimization

Polyvictimization, an individual's experience of multiple types — as opposed to counts — of victimization, began to be studied separately from victimization as a whole over the past twelve years (Finkelhor et al., 2005). The first study to distinguish poly-victims from other groups of victims used the Developmental Victimization Survey to observe childhood victimizations, incidences of witnessing violence, and trauma symptoms (Finkelhor et al., 2005). 71% of the sample had experienced at least one type of victimization. The mean number of types of victimizations experienced was 3; defining poly-victims as those who experienced numbers of victimization types above that of the sample mean, poly-victims were considered to be those who had experienced four or more victimizations. According to that definition, 22% of the sample, a sizable minority, were poly-victims. The most important contribution of the study, apart from giving polyvictimization its name, is that it showed that polyvictimization had independent predictive effects on trauma symptoms.

A follow-up to the 2005 study found demographic differences in poly-victims and non-poly-victims (Finkelhor et al., 2007). In their sample, poly-victims were more likely to be male, older, minorities, residing in urban areas, and come from single-parent households of lower socioeconomic status. As in the 2005 study, the follow-up found that the inclusion of polyvictimization in models greatly reduced or completely eliminated the explanatory power of individual victimization variables (Finkelhor et al., 2007).

Butcher and colleagues (2016) emphasized the importance of studying polyvictimization in multiple contexts, arguing that the quantity of victimization experiences is important, but there is much to be learned from the social contexts in which the victimization occurs. They focused on three contexts: families, neighborhoods, and schools. They found that the contexts in which victimization or polyvictimization occurred differed according to race, gender, and age, and that those who experienced poly-victimization in multiple contexts reported greater amounts of externalizing problem behaviors, such as fighting, lying, and angry outbursts (Butcher et al., 2016). This work shows the importance of considering the factors surrounding polyvictimization, rather than solely focusing on the number of victimizations one has experienced.

As previously mentioned, Finkelhor and colleagues (2009) modeled four pathways to polyvictimization. Like Butcher et al. (2016), they emphasized the importance of considering poly-victims' tendency to be vulnerable in multiple contexts, including within the home and family, with peers, and in association with behavioral problems. Using three waves of the Developmental Victimization Survey, they created four pathways and tested each for significance in predicting polyvictimization. Each pathway was made up several variables, or pathway indicators, which were not specifically tested for predictive power (Finkelhor et al., 2009).

The first pathway was the dangerous community pathway, which included school violence, neighborhood violence, moving to a worse neighborhood, and living in a large city. The second pathway, the dangerous family pathway, included

witnessing family violence, having parents or caregivers who argued with one another frequently, arguing with their parents frequently, and experiencing any maltreatment. The third pathway, the family problems pathway, included homelessness, parental unemployment, parental substance abuse, parents getting divorced or separating, parents switching to a worse job, parents losing their driver's license, money problems in the family, and the family being put on or forced off of public assistance. It was also in this third pathway that Finkelhor and colleagues included their indicator of parental criminality, having a parent or caregiver in prison in the past year. The fourth and final pathway is behavioral/emotional problems, which included respondents' scores on anger, depression, and anxiety measures. Each of the four pathways, in the aggregate, independently predicted polyvictimization (Finkelhor et al., 2009). However, because they did not test the individual pathway indicators, it is not known whether each of the indicators significantly predict polyvictimization on their own. Importantly for the present study, the pathways piece highlighted the potential salience of family factors in predicting polyvictimization. Though it had the primary shortcoming of failing to test the individual pathway indicators, such as its conceptualization of parental criminality, it lays the groundwork and rationale for continuing to investigate risk factors for polyvictimization, both in comparison to single victimization and in specific subgroups of poly-victims.

Consequences of Polyvictimization. Though the current study focuses on examining a risk factor for polyvictimization, multiple studies have focused on the negative consequences experienced by poly-victims, especially as compared to people who have only been the victim of a single crime (Ellonen & Salmi, 2011; Finkelhor et

al., 2005; Finkelhor et al., 2007; Ford et al, 2010; Ford et al., 2013; Sabina & Straus, 2008). Finkelhor et al.'s (2005, 2007) studies using the Developmental Victimization Survey found that poly-victims tended to have the highest level of trauma symptoms, including anxiety, depression, anger, and aggression. For instance, more than three-quarters of the sample who were symptomatic of clinical anxiety and clinical depression were poly-victims (Finkelhor et al., 2007). In addition to mental health symptoms, polyvictimization has also been associated with substance use. Ford et al. (2010) found that poly-victims were at an elevated risk of alcohol abuse and/or drug abuse as compared to non-victims and single victims. Similarly, Ellonen and Salmi (2011) noted that many of the poly-victims in their sample reported frequent alcohol use and drug experimentation, as well as smoking.

Although the population of focus for the current research is adolescents, studies have found evidence of negative consequences of polyvictimization in adult samples as well (Richmond et al., 2008; Sabina & Straus, 2008). Taken together, these findings suggest that polyvictimization has unique negative consequences over and above those experienced by single victims. Poly-victims have nominated themselves for special focus from researchers and practitioners alike (Finkelhor et al., 2007), including a focus on the factors that predict polyvictimization.

Polyvictimization vs. Repeat Victimization. Repeat victimization, which is typically conceptualized as experiencing multiple incidences of a single type of victimization over time, has been considered in the literature, with studies finding that prior victimization experiences can be predictive of subsequent victimizations and that it is associated with negative consequences, including for mental health and

offending (Fagan & Mazerolle, 2011; Finkelhor, Ormrod, & Turner, 2007; Lauritsen & Quinet, 1995). It is important to distinguish the concept and experience of polyvictimization from that of repeat victimization. Turner, Finkelhor, and Ormrod (2010) tackle this issue head-on by comparing trauma symptoms among poly-victims and repeat victims. They defined repeat victimization as multiple incidences of a single type of victimization (i.e., multiple physical assaults). They found that polyvictimization was associated with higher levels of trauma symptoms than repeat victimization. Even those who experienced chronic repeat victimization still reported fewer trauma symptoms than poly-victims, leading the authors to conclude that “multiple victimization involving different types is more detrimental to child mental health than repeat victimization of a single, even serious, type” (Turner, Finkelhor, & Ormrod, 2010, p.327). It would appear, then, that there is something about experiencing multiple types of victimization that is seriously disadvantageous over and above a mere dosage effect. Turner and colleagues conclude that focusing research on polyvictimization rather than repeat victimization actually allows for a more accurate sense of the impact of multiple victimizations on children’s mental health and other outcomes.

Witnessing Violence. While witnessing violence is not necessarily a part of the common conceptualization of victimization, those who study polyvictimization do tend to include it in theirs as a way of capturing the full range of exposure to violent or traumatic criminal events (Butcher et al., 2016; Finkelhor et al., 2005). Owens and Straus (1975) argue that when individuals witness violence, they may be more likely to support and/or perpetrate violence; this may be particularly evident for children

because imitation is a large part of their learning process. They argue that witnessing violence is part of an overall social structure of violence and is in turn related to both victimization and offending (Owens & Straus, 1975). Because of the structured nature of violence, it makes sense to consider witnessed violence as part of tallies of victimization experiences.

Defining Polyvictimization. Precisely how to define polyvictimization has been somewhat ambiguous in the literature. Because a good deal of research on polyvictimization has been led by Finkelhor and much of his work uses the Developmental Victimization Survey and its Juvenile Victimization Questionnaire, polyvictimization has often been defined as experiencing four or more victimizations. This is because the mean number of victimizations experienced by that dataset's respondents is 3 and polyvictimization is to be defined according to respondents' mean number of victimizations (Finkelhor et al., 2005). Other studies (Ford et al., 2010; Ford et al., 2013) have not explicitly described how they operationalize polyvictimization, merely using the phrase *multiple* victimizations; this creates considerable issues in comparing findings across studies. Finkelhor and colleagues (2007) acknowledge that their method for determining polyvictimization cut-offs may not be without fault, and encourage other researchers and clinicians to work towards a more precise operationalization (p.21). Unfortunately, their call to action does not seem to have been heard, and the literature on polyvictimization still lacks definitional clarity and consistency.

Parental Criminality

The consequences of being a child of criminal parents have typically been discussed in terms of the child's offending behavior, sometimes referred to as the intergenerational transmission of offending. Because of the family's role as a primary agent of socialization, families — and parents, in particular — may be viewed as an important point of focus in criminology (McCord, 1991; Laub & Sampson, 1988; Thornberry et al., 2003; Wilson, 1975). Further, crime has been found to cluster in certain families, suggesting that something about those families is criminogenic and ought to be researched (Junger et al., 2013).

Several studies have observed a link between parental criminality and children's delinquency. Loeber and Dishion (1983) undertook a systematic review of studies related to the prediction of male delinquency. Among the studies they reviewed were several studies which posited family effects on delinquency, including parental criminality, which they argued related to overall family functioning. They found known criminality of family members, including parents, to improve the prediction of children's delinquency and recidivism. They also noted that parental criminality may still have an effect in cases in which the parent was engaged in criminality before the birth of the child. Importantly, of all the predictors they considered in their review, parental criminality was among those that showed the most success in predicting delinquency (Loeber & Dishion, 1983).

Thornberry and colleagues (2003) used the Rochester Youth Development Study, which has data from three generations, to observe intergenerational continuity in delinquent and antisocial behavior. They found evidence for intergenerational

continuity between the original study participants and their children, for both mothers and fathers. However, the previously delinquent mothers' effects on their children's delinquency were less direct than that of the fathers (Thornberry et al., 2003).

Farrington, Coid, and Murray (2009) also used data from three generations to study the intergenerational transmission of offending. Subjects came from the Cambridge Study in Delinquent Development, which has studied a group of males from the age of 8 through adulthood; this study also looked at those subjects' parents and children. They found that 63% of the original study males with criminal fathers had a criminal conviction. They also found significant intergenerational transmission of criminality between the eldest generation females to original study males, original study males to third generation males, and original study males to third generation females. However, there were so few third generation females with a criminal conviction that the relationship between original study males' criminality and that of their daughters did not reach significance. The relationship between parental criminality and offspring criminality was particularly strong in cases in which the father and/or mother were convicted before by age 10. Of note, they found a pattern in which convicted males married and/or had children with convicted females, suggesting that there may be assortive mating among criminally-involved parents (Farrington et al., 2009).

Related to the gender component of the current study, Daly's (1992) study of pathways to felony court in New Haven, Connecticut, underscores the role of parental criminality in females' experiences of victimization and offending. Of her five pathways, two may involve some sort of parental criminality, harmed and harming

women and street women. Harmed and harming women have long histories of abuse or neglect beginning and childhood, while many street women were pushed out of or fled abusive households (Daly, 1992). This suggests that, especially for women, parental criminality may play a key role in predicting children's victimization in addition to their offending.

Looking specifically at the existing work relating polyvictimization and any measure of parental criminality, Finkelhor et al. (2009) consider parental criminality as a pathway indicator that falls under the family problems pathway, a pathway that emphasized distress within the family. They conceptualize parental criminality as having a parent or caregiver imprisoned in the prior twelve months. Although the family problems pathway was found to predict polyvictimization, the specific pathway indicators were not tested for statistical significance, leaving a gap in knowledge of the relationship between parental criminality and polyvictimization, a relationship which merits further study.

The Victim-Offender Overlap

Often invoked in discussions of victimization, and of polyvictimization, is the victim-offender overlap. Multiple studies have demonstrated that there is a relationship between victimization and offending, such that many offenders have histories of victimization, and many victims of crime also commit criminal offenses (Jennings et al., 2010; Jennings et al., 2012; Owens & Straus, 1975; Rivera & Widom, 1990; Sampson & Lauritsen, 1990; Widom, 1989a; Widom, 1989b). Victims and offenders also tend to have similar demographic profiles (Sampson & Lauritsen, 1990). Jennings, Piquero, and Reingle (2012) wrote that "of all criminological

facts...perhaps none as also as consistent but less recognized as the link between offenders (offending) and victims (victimization)” (p.16). This crucial statement guides research on victimization as a criminological problem of interest; if victimization can be reduced, perhaps offending can be reduced in turn, and vice versa. Key to any research on victimization, the correlation between victimization and offending makes traditional criminological theories applicable to explaining victimization (Jensen & Brownfield, 1986).

Figure 1 shows what is known and what the current study hopes to learn about the relationships between parental criminality, polyvictimization, and delinquency. This figure lends understanding as to why it is important to discuss the victim-offender overlap in the context of the research questions at hand. The right-hand side of the figure shows a relationship that has been well-studied in criminology, as previously discussed in this literature review, the relationship between parental criminality and delinquency.

The bottom of the figure shows another well-demonstrated relationship, the relationship between victimization and offending. Several studies on the victim-offender overlap come from Cathy Spatz Widom’s research on the differences in outcomes between children who experienced abuse and/or neglect in childhood and a matched control group who did not (Widom, 1989b). She used official records of abuse and neglect, which came from juvenile court and adult criminal court records, as well as official arrest records to measure subsequent delinquency. Members of the matched control group were selected from birth record information or school record information, depending on whether the children were of school age (Widom, 1989b).

Her analyses found evidence for the correlation between childhood victimization and later offending. This relationship held for delinquency, as well as for adult offending, and especially for violent offending, lending support to her cycle of violence hypothesis (Widom, 1989b). Using the same group of abused and neglected children and matched controls, Rivera and Widom (1990) analyzed specific patterns of the relationship between victimization and violent offending. They found that the victim-offender overlap was particularly pronounced for males and for African-American youth. Additionally, those who had been victimized in childhood were more likely to have earlier ages of onset for offending than were those in the control group (Rivera & Widom, 1990).

Daly (1992) discussed women's pathways to felony court using a sample of 40 cases in New Haven, Connecticut. She found there to be five major pathways that involved women in the criminal justice system: harmed and harming women, street women, drug-connected women, battered women, and other women. Three of these five pathways reflect female offenders' prior victimization. Harmed and harming women were characterized by lengthy abuse and victimization histories, acting out in childhood, psychological problems, and lack of coping skills (Daly, 1992, p.27). Street women generally began their offending histories by selling drugs, prostituting themselves, stealing, or getting involved in petty hustles; their pathways to offending originated from running away from or being pushed out of abusive homes (Daly, 1992, p.27-8). Battered women were those who offended directly as a result of being victimized in the context of a violent relationship, clearly exemplifying the victim-offender overlap (Daly, 1992, p.27). Thirty of the forty women fell into one of these

three categories, demonstrating how crucial it is to consider victimization when studying female offending (Daly, 1992).

Quite a bit of work on polyvictimization has highlighted the relationship between polyvictimization and delinquency, a special case of the victim-offender overlap (DeHart, 2008; DeHart & Moran, 2015; Ford et al., 2010; Ford et al., 2013; Raddatz & Wilson, 2015). A number of these studies have sampled incarcerated juveniles, though others have shown the relationship through self-reports of delinquency. A study of 1,959 juveniles who had recently arrived at three juvenile pretrial detention facilities sought, in part, to assess youth's victimization and polyvictimization histories (Ford et al., 2013). The researchers found that about five percent of the detained juveniles were poly-victims. Similarly, studies of incarcerated females have found that substantial proportions of inmates have been poly-victimized (DeHart, 2008; DeHart & Moran, 2015; Raddatz & Wilson, 2015).

Studies using samples of non-incarcerated juveniles have also found evidence for the victim-offender overlap among poly-victims. Using a nationally representative survey of adolescents in the U.S., Ford and colleagues (2010) studied the negative consequences of polyvictimization. They found that polyvictimization was associated with both delinquency and association with delinquent peers. This was one of the first studies to empirically assess the relationship between polyvictimization and self-reported delinquency (Ford et al., 2010).

An international study also found a relationship between polyvictimization and delinquency, this time using a nationally representative sample of Finnish sixth and ninth graders (Ellonen & Salmi, 2011). The nine percent of their sample who

were classified as poly-victims reported significant levels of delinquency, again demonstrating the necessity of examining both victimization and offending experiences in studies of polyvictimization.

The victim-offender relationship is not the primary relationship of interest for this study, though delinquency is included as a covariate in its analyses. The victim-offender overlap is important, however, because it provides a theory-based reason to investigate risk factors for offending as risk factors for victimization. The study will take advantage of that opportunity, by testing whether there is a relationship between parental criminality and polyvictimization independent of delinquency. Essentially, looking back at Figure 1, the current study will test if that left-hand part of the triangle is indeed a significant relationship.

Gender Considerations

Comprehensive studies of victimization and offending ought to take gender, a key correlate of crime, into account (Steffensmeier & Allan, 1996; Morash & Chesney-Lind, 2009). Unfortunately, most research on polyvictimization has neglected to fully consider gender as a significant moderator of risk factors for polyvictimization or account for other gender differences in experiencing polyvictimization. This section will describe some of the extant research on how gender is related to victimization and polyvictimization, and will discuss gendered socialization practices as a potential reason why gender may moderate the relationship of interest.

Belknap and Holsinger (2006) argued that criminology has traditionally ignored the gendered nature of risk factors for delinquency, specifically noting that

victimization might be a particularly salient risk factor for girls' delinquency. As part of a study of incarcerated youth in Ohio, they sampled 163 girls and 281 boys in the custody of the Department of Youth Services. They found considerable gender differences in abuse histories of the respondents, as all abuse variables were significantly different according to gender. Girls reported greater amounts of abuse; about two-thirds of girls, as compared to a bit more than half of boys, reported experiencing abuse. Further, girls were more likely than boys to reported being sexually abused by multiple perpetrators (Belknap & Holsinger, 2006). Although this is subjective, they found that more girls than boys at least partially attributed their victimization history to their offending. Additionally, slightly more girls than boys (69.2% and 62.5%, respectively) reported having ever had a parent incarcerated, but this difference was not significant. What is noteworthy, though, is that 65% of the sample did report this measure of parental criminality (Belknap & Holsinger, 2006).

Another reason why it is important to consider gender is that males and females may differ in their responses to victimization, and in victimization's long-term consequences. McGloin and Widom (2001) studied a sample of individuals who had been abused and/or neglected as children in order to see if there were differences in resiliency. They defined resilience as meeting at least six of the following eight criteria: successful employment, no homelessness, having graduated from high school, involvement in social activity, no psychiatric disorders, no substance abuse, no arrest, and no self-reported violence (McGloin & Widom, 2001). They found significant gender differences in resilience among their sample. Females had higher average numbers of functioning domains of resilience than males and were more

likely than males to be considered resilient. Although only 22% of their sample met the criteria for resilience, the significant gender differences are noteworthy (McGloin & Widom, 2001). If males and females differ in the consequences of victimization that they experience, that is important for victim services providers and researchers to consider.

Looking at gender and polyvictimization, Finkelhor et al.'s (2005) original polyvictimization study had a relatively even split of male and female poly-victims (53% of poly-victims were male and 47% were female), though they did not test to see if this gender breakdown was significant. Several subsequent studies have made an attempt to understand how polyvictimization may relate to gender, often working with samples of only females. Richmond and colleagues (2008) studied whether known relationships between polyvictimization and negative outcomes, psychological distress in particular, generalize to adult survivors of childhood victimization. They used two samples, each of about 300 female undergraduate students at a U.S. university. Among the first sample, 97.4% reported at least one victimization and 40% were poly-victims. In the second sample, 98% reported at least one victimization and 49% were poly-victims (Richmond et al., 2008). Analyses of both samples produced the same conclusion: polyvictimization had a unique predictive effect on whether the respondents reported psychological distress. Though the study does not include a comparison group of males, it demonstrates that the consequences of childhood polyvictimization may pervade female poly-victims' lives as they progress to early adulthood and impact their psychological functioning (Richmond et al., 2008).

Other studies of female poly-victims have relied on samples of incarcerated females. DeHart (2008) did qualitative interviews with 60 women incarcerated at a maximum security facility for a wide variety of offenses. The purpose of the study was to understand women's perspectives on their own pathways to prison. Unlike other pathways studies (i.e., Daly, 1992; Belknap & Holsinger, 2006), the subjective approach allowed for differences in the extent to which women attribute victimization as a causal factor in their offending. Most of the women in the sample reported experiencing polyvictimization in their youth, which disrupted their routines, pushed them away from family and friends, and led to trauma. Many of the women did attribute their offending to their victimization and trauma histories, leading to the conclusion that "failure to choose a pathway involving crime seems more remarkable than having chosen such a pathway" (DeHart, 2008, p.1378). Several years later, DeHart and Moran (2015) used life history calendars and a quantitative questionnaire to study the effects of polyvictimization among 100 juvenile justice-involved girls. They argued that understanding the role that polyvictimization may have played in female delinquents is crucial to developing gender responsive programming and assessment. Only two of the girls in their sample did not report experiencing any victimization. Hazard models showed that polyvictimization was associated with risk of offending and that risk of experiencing polyvictimization increased in the teen years (DeHart & Moran, 2015).

Although the previously described studies of polyvictimization do focus on females, few if any studies have directly compared risk factors for polyvictimization between males and females. Too many studies simply report descriptive statistics on

the gender composition of poly-victim subsamples, without exploring possible explanations for gender differences. This creates a substantial gap in understanding, given the known gendered nature of victimization and that certain risk factors are differentially predictive according to gender (Belknap & Holsinger, 2006; Blitstein et al., 2005). Although there is some knowledge of how males and females experience the consequences of polyvictimization, it is also important to examine if risk factors differ according to gender. Knowledge of these risk factors is important in order to intervene to prevent polyvictimization; if risk factors differ according to gender, those prevention efforts will need to be tailored appropriately. This study will attempt to address this gap by dividing the subsample of poly-victims according to gender in order to run separate analyses of the relationship between parental criminality, polyvictimization, and relevant covariates.

A potential reason why it may be expected that gender would moderate the relationship between parental criminality and polyvictimization is differential socialization by parents during childhood and adolescence. There is evidence to suggest that girls are supervised more closely than boys and are socialized to spend more time in the home (Augustyn & McGloin, 2013; Heimer & DeCoster, 1999; Kruttschnitt & Giordano, 2009). If girls spend less time outside of the home than boys, they may be less exposed to victimization that occurs in contexts outside of the family. In addition, Bottcher (2001) found that the youths in her study tended to participate in mostly gender-typed activities, boys tended to be more familiar with the area around their homes than were girls, that girls were given less privacy by their parents than were their brothers, that boys were allowed by their parents to move

around more freely with less supervision, that girls' relationships with the opposite sex were subject to greater parental restrictions, and that girls were more likely to be kept at home at night. Just as studies have found these differences in socialization to be associated with delinquency, they may moderate the relationship between polyvictimization and its potential risk factors. If polyvictimization is apt to occur in multiple contexts, as Butcher et al. (2016) argue, then girls may be less likely to experience polyvictimization than boys, which would moderate the relationship between parental criminality and polyvictimization.

Theoretical Framework

There are several criminological theories that may help to explain victimization and the victim-offender overlap. Routine activity theory (Cohen & Felson, 1979) is often invoked when discussing victimization (Finkelhor & Asdigian, 1996; Jensen & Brownfield, 1986), and therefore stands out when hypothesizing the relationship between parental criminality and polyvictimization. The present study is not a direct test of this theory; rather, the theory is meant to serve as a guide for exploring the relationship between the two key variables of interest.

Cohen and Felson (1979), in discussing trends in crime rates, state that crime occurs due to “the convergence in space and time of the three minimal elements” (p.589). Those three elements are a motivated offender, a suitable target, and the lack of a capable guardian. If any one of those three elements is missing, it is less likely that a crime will occur, according to the theory. Suitable targets may include either persons or property (i.e., victims, in the case of persons). Capable guardians may include traditional criminal justice actors such as police, but may also refer to

“guardianship by ordinary citizens by one another and of property as they go about routine activities” (Cohen & Felson, 1979, p.590).

Expanding on routine activity theory, Finkelhor and Asdigian (1996) discuss factors other than delinquency involvement that may put youth at risk for victimization. They argue that the conceptualization of guardianship is flawed in routine activity theory, and that lack of guardianship ought to be viewed as a contextual factor that may elevate one’s victimization risk. Further, they outline three characteristics of individuals that may exacerbate their risk of being victimized by motivated offenders: 1) target vulnerability; 2) target gratifiability; and 3) target antagonism (Finkelhor & Asdigian, 1996, p.6). Target vulnerability refers to characteristics of a victim, such as insufficient physical strength or small size, which make him or her less able to resist victimization. Target gratifiability refers to characteristics of a victim that make him or her appealing for an offender to victimize, based on the offender’s motives and goals. Such characteristics may include possessing something an offender wants to steal, or the gender of a victim for a perpetrator of sexual assault. Target antagonism refers to characteristics of a victim that incite certain negative emotions in an offender (i.e., anger, jealousy). An example of target antagonism would be ethnicity in the case of an offender who perpetrates a hate crime (Finkelhor & Asdigian, 1996).

Taken together, Cohen and Felson’s (1979) theory and Finkelhor and Asdigian’s (1996) commentary and theoretical reconceptualization, routine activity theory provides a framework for understanding the relationship between parental criminality and polyvictimization. Having a criminal parent may lead to a lack of

capable guardianship. Not only may criminal involvement make a parent physically absent, as in the case of incarceration, but it may make the parent him or herself less able to protect their child from victimization or exposure to crime. Parental criminality could conceivably make a child an easier target, as criminally-involved families may be less likely to turn to the police for help after a victimization has occurred; this may reflect Finkelhor and Asdigian's (1996) notion of target availability. It might also be the case that children of criminal parents converge in time and space with offenders if they reside in neighborhoods where there is clustering of offenders and opportunities for victimization, as accounted for by Finkelhor et al.'s (2009) dangerous community pathway.

Chapter 3: Research Questions and Hypotheses

The Present Study

The present study is an effort to expand and add clarity and nuance to Finkelhor et al.'s (2009) discussion of the pathways to polyvictimization, specifically by investigating the role that parental criminality may play as a risk factor. The present study is not solely interested in children's victimization(s) at the hands of their parents; rather the interest is in whether having criminal parents predisposes children to multiple victimizations from any source(s). In addition, by controlling for respondents' self-reported delinquency, the study will examine the relationship between parental criminality and polyvictimization independently of delinquency. This research also seeks to explore whether gender moderates the relationship between parental criminality and polyvictimization. Because of the gendered nature of crime and victimization and the importance of understanding females' experiences apart from those of males, some analyses will be run with the sample split between males and females.

Research Questions

As noted in the literature review, there are currently several gaps in the polyvictimization literature that this study will aim to address. The extant literature is lacking a thorough consideration of the extent to which parental criminality is predictive of polyvictimization and whether there are gender differences in risk factors for polyvictimization. When looking at polyvictimization, it is also important to consider whether the experiences of poly-victims are distinct from those of non-

victims and those who report fewer victimizations. Thus, this study will seek to answer the following three research questions:

RQ1: Does having at least one criminal parent increase the odds of polyvictimization, independent of delinquency?

RQ2: Does gender moderate the relationship between parental criminality and polyvictimization?

RQ3: Are the odds of experiencing polyvictimization among offspring of criminal parents significantly greater than the odds of experiencing a single victimization?

Hypotheses

The present study will test three main hypotheses. Based on the literature outlined in the previous chapter and in accordance with the research questions outlined above, the hypotheses are as follows:

H1: Having one or more criminal parents will be associated with greater odds of polyvictimization for offspring.

H2: Parental criminality will be associated with significantly differential odds of polyvictimization for male and female offspring. Specifically, gender will moderate the relationship between parental criminality and polyvictimization such that parental criminality will be more predictive of females' experience of polyvictimization than of males'.

H3: Parental criminality changes the relative odds of polyvictimization as compared to experiencing a single victimization.

Chapter 4: Data and Methods

Dataset

This study uses data from the National Survey of Adolescents in the United States, 1995 (hereafter referred to as the National Survey of Adolescents)¹. The National Survey of Adolescents is a nationally representative cross-sectional study of 12-17 year old adolescents in the United States. The survey was originally intended to shed light on the relationships between childhood victimization, substance use, delinquency, and mental health; over 1,000 variables are contained in the dataset (Kilpatrick & Saunders, 2000). Due to the study's original purpose and its inclusion of a wide range of victimization variables and potential covariates, it is ideal for addressing the research questions outlined in the prior section. In addition, that the study is nationally representative should increase the external validity of the findings.

The sampling occurred in two stages. The first was a national probability sample of 3,161 adolescents in U.S. households. The second stage was an oversample of 862 adolescents living in central cities. The total sample was 4,023 adolescent-parent pairs (Kilpatrick & Saunders, 2000). There were three criteria for inclusion: 1) the adolescent had to live in a household with a telephone; 2) the adolescent had to live with at least one parent or guardian; and 3) the adolescent had to speak either English or Spanish. Of note for a dataset being used for

¹ Principal Investigators for the National Survey of Adolescents are Dean G. Kilpatrick and Benjamin E. Saunders of the Medical University of South Carolina's National Crime Victim Research and Treatment Center. The survey was funded by the National Institute of Justice.

criminological research is that adolescents in institutions, including juvenile justice facilities, were not eligible for inclusion in the study (Kilpatrick & Saunders, 2000).

The study consisted of telephone interviews using Computer-Assisted Telephone Interviewing (CATI) technology with adolescents and one parent or guardian. To be eligible for study inclusion, a household needed to contain at least one adolescent between the ages of 12 and 17. Only one adolescent per household was included in the study; the adolescent with the most recent birthday was selected for inclusion as a study respondent. One parent or guardian per household was also interviewed, to provide permission for their adolescent to take part in the study and to provide information about the household. Parents' responses were matched to that of their adolescents in the dataset (Kilpatrick & Saunders, 2000).

Study Sample

Cases in which parents did not give permission for their children to be interviewed will be excluded from analysis because those adolescents had no data for the study variables. There were 176 such cases, bringing the number of cases eligible for inclusion in the study to 3,847. This is a relatively large sample, which, given that it is nationally representative, should make the findings of the study generalizable to U.S. adolescents. Unfortunately, because there is no data for any of the study variables for the 176 dropped cases, it is unknown whether these cases are missing at random.

Table 1 provides descriptive statistics for the full sample of 3,847 adolescents. The sample is evenly split by gender; 1,924 adolescents (50.01%) are male and 1,923 adolescents (49.99%) are female. The mean age of adolescents in the sample is 14.5

years old. The most common racial category is White adolescents (72.08%). African American was the second most common racial category in the sample (14.84%). The sample is predominately non-Hispanic (90.36% non-Hispanic). Most adolescents in the sample (78.55%) do not reside in cities; the most common locale reported were small towns (22.85%).

Measures

Dependent Variable: Polyvictimization. The dataset includes a variety of victimization variables under the categories of physical and sexual victimization. In an effort to be consistent with other polyvictimization studies, incidences of witnessing violence will also be included in the conceptualization of polyvictimization. For each victimization or witnessing violence question, dummy variables were created to indicate whether or not the respondent reported lifetime victimization of that type or ever having witnessed that type of violence. From there, a scale was created to represent the number of types of victimization, including witnessing violence, each respondent experienced, ranging from zero to a possible maximum of 17, though no respondent reported experiencing more than 14 types of victimization. That number was used to determine whether a respondent was a non-victim, a single victim, or a poly-victim. This study will define polyvictimization as experiencing two or more types of victimizations, following Finkelhor et al.'s (2005) rule that poly-victims are those who have greater than the mean number of victimizations in the sample. The mean number of victimizations experienced by respondents is 1.78 victimizations (see Figure 2 for the frequency distribution of the

number of victimization types reported by the respondents). Based on this operationalization, 43.59% of the sample are poly-victims². Importantly, the data only allow for the measure of the number of types of victimizations an individual reports having experienced, not counts of incidents of each type of victimization.

Polyvictimization 4. As noted, polyvictimization as a concept is not measured consistently from study to study. With that in mind and in an effort to present the most robust results possible, some analyses will be run with polyvictimization measured as an individual's experience of four or more types of victimizations. This will allow for an investigation into whether how polyvictimization is measured impacts the results of the statistical models. 14.58% of the sample have experienced four or more types of victimization.

Parental Criminality. Respondents were asked if they have had a parent in trouble with the law, which was coded as 1 = yes, 2 = no, and 3 = not sure. Those who answered yes to having had a parent in trouble with the law were asked which parent(s) had such trouble (mother, father, or both). Importantly, it is unknown whether the parents are biologically related to the respondents or are stepparents or other parental figures. 225 adolescents (5.85%) reported having at least one parent in trouble with the law; of those 225 adolescents, the majority (79.96%) had a criminal father only. Though "trouble with the law," is somewhat vague, the measure is actually ideal because its open nature allows for the possibility that one or more of a respondent's parents have criminal justice involvement in any form, rather than solely

² See Table 2 for descriptive statistics for the poly-victim (2+) subsample and Table 3 for descriptive statistics for the poly-victim 4 subsample. See Table 4 for the frequencies of each victimization type, including a gender breakdown.

a certain type of involvement (i.e., incarceration). For the current study, parental criminality will be measured in two ways: 1) as a dichotomous measure of whether a respondent reported that at least one of their parents had been in trouble with the law; and 2) as the number of parents who have been in trouble with the law, which will range from zero to two. Using multiple measures of parental criminality will help to strengthen the study. In addition to assessing whether there is a relationship between having any criminal parents and experiencing polyvictimization, unlike most other studies of parental criminality, this measure allows for the possibility that the number of criminally involved parents is a predictor of polyvictimization as well by assessing if and how much each additional criminal parent predicts polyvictimization.

Gender. Gender is coded as whether the respondent's sex is male (1) or female (0).

Covariates.

Violence in community. Criminologists have discussed the salience of neighborhoods and communities in structuring opportunities for crime and victimization (Butcher et al., 2016; Finkelhor et al., 2009; Lauritsen & Quinet, 1995; Morash & Chesney-Lind, 2009). Two variables will be included in the dataset to capture this concept, the first of which is the adolescent's perception of how much of a problem violence is in his or her community. It is measured as a scale, where 0 = don't know; 1 = not a problem; 2 = fairly small; 3 = mid-sized; and 4 = very big problem.

Crime problem in community. Because the measure of violence in the community neglects other types of offenses, the study will also control for parents'

perceptions of how great a problem crime is in the community³. This variable as measured as a scale, where 0 = don't know; 1 = not at all; 2 = not too much; 3 = somewhat; and 4 = great problem.

Number of people in household. The number of individuals in a household may be related to the amount of supervision a child receives, with the implication that less supervision may lead to greater chances of victimization (Finkelhor et al., 2009). Parents or guardians were asked how many people were living in the household at the time of the interview. This is a continuous variable that ranges from 1 to 11 people, with a mean of 4.24 people.

Living in a city. Because the original researchers oversampled a group of adolescents in central cities, the study will include a binary indicator of whether a respondent reports living in a city or living elsewhere⁴ (1 = living in a city, 0 = else).

Delinquency involvement. As discussed in the literature review, victimization and offending tend to be highly correlated, and parental criminality has been found to be related to delinquency involvement. To address the victim-offender overlap in this sample, a summed scale of the number of delinquent acts self-reported by the respondent will be included as a covariate. Types of delinquency include drinking alcohol, using illicit drugs⁵, having stolen or tried to steal something worth more than \$100, having stolen or tried to steal a motor vehicle, breaking and entering, involvement in gang fights, using force or strong-arm methods for robbery, having or

³ Respondents themselves were not asked about the extent to which crime is a problem in their communities.

⁴ Categories of the areas where respondents live are city, suburb, large town, small town, and rural area.

⁵ Types of illicit drug use included in the survey are marijuana, cocaine or crack, angel dust, LSD, heroin, and inhalants.

attempting to have sex with someone against their will, and attacking someone with the intent to maim or kill them. These are lifetime measures of delinquency. The scale will range from zero to nine possible delinquent acts committed by the respondent, though no individual in the sample committed all nine delinquent acts.

Age. Age is a known correlate of offending and victimization; poly-victims specifically tend to be older adolescents because victimizations accumulate with age (Turner, Finkelhor, & Ormrod, 2010). The study is restricted to adolescents between the ages of 12 and 17 years old, and age is coded as a continuous variable between those two years old.

Race/Ethnicity. Race is also a known correlate of offending and victimization. Racial categories in the study are Pacific Islander, American Indian, Asian, African American, and White. Dummy variables will be created for White, African American, and other race, with White being the reference category in the analyses⁶. A separate dummy variable will indicate whether or not an individual identifies as being of Hispanic or Spanish origin (1 = yes, 0 = no).

Analysis

Multiple analyses will be run to answer the question of whether parental criminality is a risk factor for polyvictimization independent of delinquency and whether gender moderates that relationship. All analyses will be run multiple times using the different measures discussed previously for polyvictimization and parental criminality. Specifically, each analysis will be run with polyvictimization measured

⁶ Only 8.11% of the sample identified as Pacific Islander, American Indian, or Asian.

as two or more types of victimization and then again with polyvictimization measured as four or more types of victimization (polyvictimization 4). Each analysis will also be run with parental criminality measured as a dichotomous variable and then again with it measured as a categorical variable indicating how many parents have been in trouble with the law. Incorporating these variety of measures will strengthen the analysis by shedding more light on the relationships of interest.

To test the first hypothesis and the overall relationship between parental criminality and polyvictimization, logistic regression will be employed. The full sample will be used for this model, and all controls will be included. For this analysis, gender will be included as a control variable.

To test the second hypothesis regarding gender as a moderator, the sample will be split between males and females. A logistic regression with all controls will be run for both the male and female subsamples in order to compare the coefficients. A likelihood-ratio Chow test will assess whether the relationship between parental criminality and polyvictimization is different for males and females to the point that it is worthwhile to separate them out into two subsamples.

Multinomial logistic regression will be employed to assess the relationship between parental criminality and different levels of victimization. This type of analysis will answer the question of how distinct polyvictimization is from single victimization. The categories of the dependent variable for the first multinomial logistic regression analysis will be no victimization, single victimization, and polyvictimization. For the second, the categories will be no victimization, single victimization, two to three victimizations, and polyvictimization 4. Single

victimization will serve as the base outcome, in order to assess differences between single victims and poly-victims. All controls, including gender, will be included in the regressions, which will test the third hypothesis.

Chapter 5: Results

The first set of models employ logistic regression to determine whether parental criminality increases the odds of offspring experiencing polyvictimization. Both parental criminality and polyvictimization were measured in two different ways, creating a total of four logistic regression models. Table 5 shows the full results of each of these models, noting whether parental criminality was measured in a binary or continuous fashion as well as whether polyvictimization was measured as two or more types of victimizations or four or more types of victimizations.

The first model utilized the dichotomous measure of parental criminality and defined polyvictimization as experiencing two or more types of victimization. As predicted, parental criminality was positively and significantly related to polyvictimization; specifically, having a criminal parent is associated with 1.939 times greater odds of polyvictimization. This model also finds that compared to females, males are significantly more likely to be poly-victims. African-American adolescents, as compared to White adolescents, were over two times as likely to experience polyvictimization; youths in the other race category were also significantly more likely to experience polyvictimization than Whites. Youths who lived in cities, were older, perceived there to be greater amounts of violence in their community, and whose parents perceived crime to be a greater problem in their community also had increased odds of polyvictimization. Being of Hispanic ethnicity and the number of people living in the household were not significant predictors of polyvictimization. Finally, consistent with prior research, greater involvement in

delinquency was strongly related to polyvictimization, as it was associated with 2.268 times greater odds of polyvictimization.

The second model still defined polyvictimization as experiencing two or more types of victimization, but conceptualized parental criminality as the number of criminal parents. In this model, parental criminality was again significantly related to polyvictimization, with each additional criminal parent increasing the odds of polyvictimization by a factor of 1.793. Generally speaking, as shown in the second column of Table 5, the magnitude of the coefficients in the model decreased slightly from their magnitude using the dichotomous measure of parental criminality. However, no variable ceased to be significant from model 1 to model 2 and no variable became significant in model 2 that was not already significant in model 1. Living in a city, though still significant, did change in level of significance, from a significance level of $\alpha = 0.001$ in model 1 to a significance level of $\alpha = 0.01$ in model 2.

There were important differences in the models when the operationalization of polyvictimization changed to experiencing four or more types of victimization, as shown in columns 3 and 4 of Table 5. In model three, which measured parental criminality dichotomously, parental criminality was associated with 1.812 times greater odds of polyvictimization. Greater perceptions of violence in the community, greater involvement in delinquency, older age, and being African-American as compared to White remained significantly associated with greater odds of polyvictimization, as well. However, parents' perceptions of crime in the community, living in a city, and being in the other race category as compared to

White were no longer significant. Interestingly, gender was not significant in this model.

Looking at model 4, in which parental criminality was operationalized as the number of criminal parents, parental criminality remained significantly associated with polyvictimization. In this model, each additional criminal parent was associated with 1.638 times greater odds of polyvictimization. Unlike models 1, 2, and 3, the significance level of parental criminality in this model was at $\alpha = 0.01$ rather than $\alpha = 0.001$. Gender remained insignificant in this model. No variables changed significance levels from models 3 to 4, and the coefficients remained largely similar between the two models, as well.

There are several key summary points from these four models. First, and most importantly for this thesis, parental criminality — regardless of how it is measured — is associated with significantly greater odds of polyvictimization, whether polyvictimization is measured as two or more types of victimizations or four or more types of victimizations. Across all four models, greater perceived violence in the community was significantly associated with greater odds of polyvictimization, lending support for the idea that neighborhoods may structure victimization experiences. Consistent with prior research on polyvictimization as well as the broader literature on the victim-offender overlap, across all four models, the more involved an adolescent was in delinquency, the greater the odds were that he or she would be a poly-victim. Older adolescents and African-American adolescents were also more likely to be poly-victims across all four models. Being of Hispanic ethnicity and the number of people in the adolescent's household were not

significantly related to the odds of experiencing polyvictimization in any of the models. Related to the study's second hypothesis, gender was only significant when polyvictimization was measured as two or more types of victimization; in those two models, being male was associated with about 1.3 times greater odds of being a polyvictim. Parents' perceptions of crime in the community, living in a city, and being in the other race category were also significant when polyvictimization was measured as two or more types of victimization but not when polyvictimization was measured as four or more types of victimization. These findings demonstrate that, at least using these data, the operationalization of polyvictimization matters for the results of the analyses.

The next set of models were run to address the second research question, whether gender moderates the significant relationship between parental criminality and polyvictimization. Because gender was not significant when measuring polyvictimization as four or more types of victimizations, these models were only run with polyvictimization measured as two or more types of victimizations. To test gender as a moderator, two logistic regressions were run using each of the two operationalizations of parental criminality: one for the males in the sample (N=1,924) and one for the females in the sample (N=1,923). Model 5 was the logistic regression for the male subsample using the dichotomous measure of parental criminality; model 6 was the logistic regression for the female subsample using the dichotomous measure of parental criminality. After running models 5 and 6, a likelihood ratio Chow test was performed to determine whether there was statistical merit to separating the sample based on gender, as compared to the full model. Models 7 and

8 followed the same procedure, though they used the number of criminal parents as the measure of parental criminality.

For models 5 and 6, the results of the likelihood ratio Chow test failed to provide support for splitting the sample and running separate analyses; thus, the hypothesis that there was no statistical merit to modeling the regression separately according to gender could not be rejected at a significance level of $\alpha = 0.05$. The likelihood ratio test statistic (chi-square with 10 degrees of freedom) was 15.24 with a p-value of 0.1235. Using the dichotomous measure of parental criminality, it can be concluded that gender does not moderate the relationship between parental criminality and polyvictimization.

The likelihood ratio Chow tests for models 7 and 8 resulted in the same conclusion as for the dichotomous measure of parental criminality. The likelihood ratio test statistic (chi-square with 10 degrees of freedom) was 14.49 with a p-value of 0.1520, meaning that the hypothesis that there was no statistical merit to running the regression separately according to gender could not be rejected at a significance level of $\alpha = 0.05$. Taking these two tests together, it can be concluded that gender does not moderate the relationship between parental criminality and polyvictimization, regardless of how parental criminality is measured. Thus, the second hypothesis of this study is not supported.

An additional approach to look at the differences in coefficients in the models split according to gender is to use the technique developed by Paternoster, Brame, Mazzerole, and Piquero (1998; hereafter referred to as the Paternoster test). This test allows for the comparison of regression coefficients from two samples (i.e., males

and females) in order to determine whether they differ significantly from one another. Whereas the likelihood ratio Chow test provided information that the full models were not significantly different according to gender, the Paternoster test provides that information for each specific variable in the regression model. The test statistic is calculated as:

$$z = \frac{\beta_1 - \beta_2}{\sqrt{SE\beta_1^2 + SE\beta_2^2}} \text{ (Paternoster et al., 1998).}$$

Table 6 shows the results of the logistic models for the male and female subsamples, with parental criminality measured both dichotomously and continuously, as well as the Paternoster test statistic for each variable. This test confirmed that gender does not moderate the relationship between parental criminality and polyvictimization. For both measures of parental criminality, when the coefficients for males and females are compared to each other using the Paternoster test, the resulting test statistic is not significant. Three variables did emerge as significantly different among males and females, however. Delinquency, African-American, and Hispanic each had significant Paternoster test statistics. Thus, these three variables predict polyvictimization differently for male and female youth.

The final set of models test the fundamental assumption of polyvictimization studies: that polyvictimization is significantly distinct from experiencing a single victimization. In order to test this, multinomial logistic regression is employed. Multinomial logistic regression enables the testing of the hypothesis that the log-odds of the independent variables on the dependent variables changes relative to the base outcome. For these models, single victimization serves as the base outcome in order

to test whether parental criminality changes the relative odds of polyvictimization as compared to experiencing a single victimization.

Table 7 presents the results of models 9-12, the four multinomial logistic regression models⁷. Models 9 and 10 measure polyvictimization as two or more types of victimization, while models 11 and 12 measure it as four or more types of victimization. In model 9, the dichotomous measure of parental criminality does significantly increase the relative odds of polyvictimization as compared to single victimization. The change in log-odds is a 0.404 increase for those who have at least one criminal parent for polyvictimization relative to single victimization. This is significant at $\alpha = 0.05$. Several covariates achieved significance in this model, including male, violence in the community, crime in the community, living in a city, delinquency, age, African American, and other race.

Model 10 yields similar results to the previous model. Parental criminality is again associated with a significant increase in the odds of polyvictimization relative to single victimization. Here, each additional criminal parent is associated with a 0.382 increase in log-odds for polyvictimization relative to single victimization; this relationship is significant at $\alpha = 0.05$. The same covariates were significant in model 10 as in model 9.

In model 11, the dichotomous measure of parental criminality significantly increases the relative odds of polyvictimization (here measured as four or more types of victimization) as compared to single victimization. The change in log-odds is a

⁷Table 8 includes multinomial logistic regression coefficients with the “no victimizations” category as the base outcome.

0.673 increase for those with at least one criminal parent for polyvictimization relative to single victimization. Unlike in models 9 and 10, the significance level for the coefficient is higher in models 11 and 12, at $\alpha = 0.01$. Significant covariates in model 11 included violence in the community, delinquency, age, and African American.

The final multinomial logistic regression model, model 12, used the continuous measure of parental criminality. As in the previous three models, parental criminality again significantly increases the odds of polyvictimization relative to single victimization. Here, each additional criminal parent is associated with a 0.586 increase in log-odds for polyvictimization relative to single victimization. Violence in the community, delinquency, age, and African American remained significant covariates.

To summarize the results of the multinomial logistic regression models, each of the four models provides support for this study's third hypothesis. Parental criminality is associated with increased odds of polyvictimization over and above its association with the odds of single victimization. Thus, the assumption that polyvictimization is different than experiencing a single victimization, in its correlates and consequences, is not called into question by these results.

Chapter 6: Discussion and Conclusion

The results of this study find support for the hypothesis that parental criminality is associated with offspring polyvictimization. This relationship is significant across both measurements of parental criminality and both measurements of polyvictimization. This result partially supports Finkelhor et al.'s (2009) finding, suggesting that parental criminality measures consideration as a risk factor for polyvictimization. Further, in support of the third hypothesis, parental criminality had a distinct effect on the odds of experiencing polyvictimization as compared to experiencing single victimization. These results again withstood the different measures of parental criminality and polyvictimization and they build on the body of work that has established polyvictimization as different from single victimization.

Contrary to the second hypothesis, gender did not moderate the relationship between parental criminality and polyvictimization. Though gender was a significant covariate when measuring polyvictimization as two or more types of victimization, the likelihood ratio Chow test statistic for modeling separate regressions for males and females was not significant. The Paternoster test statistics confirmed that the relationship between polyvictimization and parental criminality does not differ significantly according to the gender of the offspring. Gender is related to polyvictimization when it is measured as two or more types of victimization, but the collective risk factors for males and females are not significantly different in this dataset. Also interesting, gender was not a significant covariate when polyvictimization was measured as four or more types of victimization. This may indicate that experiencing more types of victimizations is associated with more

general — as opposed to gendered—risk factors. Based on these findings, though the procedure ought to be replicated with additional data, one can cautiously conclude that parental criminality can be considered a risk factor for polyvictimization for both male and female youth.

A key component of this study was its attention to the measurement of both parental criminality and polyvictimization. The dataset allowed for the use of multiple measures to triangulate the results, which creates additional confidence in the findings. Regardless of whether parental criminality was measured dichotomously or as the number of criminal parents an adolescent has, it was significantly related to polyvictimization across all models, suggesting that either measure was appropriate for testing the hypotheses of interest.

Regarding the measurement of polyvictimization, the picture is a bit more complicated. The results of the models did differ according to how polyvictimization was operationalized. In the full logistic regression models, fewer of the covariates were statistically significant when polyvictimization was measured as four or more types of victimization. Most notably, gender was not significant in these models. Parents' perceptions of the crime problem in a community, living in a city, and being in the other race category as compared to White also failed to reach significance levels of at least $\alpha = 0.05$ with this measure of polyvictimization. These same patterns held for the multinomial logistic regression models, as well. These discrepancies illustrate the problems surrounding the definitional ambiguity of polyvictimization. Clearly, the way in which polyvictimization is measured matters for the results of the models. In this study, the difference in the measure was only

based on a difference of two types of victimizations, but it still made a significant difference. Unfortunately, there is no clear answer as to which definition of polyvictimization is ideal and this remains a problem to be wrestled with as research on polyvictimization moves forward.

Limitations

There are several noteworthy limitations of the present study. While the National Survey of Adolescents is in many ways an ideal dataset to answer the research questions at hand, it also has shortcomings that lessen the precision of some of the measures. One of the strengths of the dataset is that it includes a variety of victimization variables, including those that measure sexual victimizations, which are often left out of surveys. However, measures of property crime victimizations are left out of this study, due to the original researchers' interest in violent victimization. The current study's measure of polyvictimization may be inaccurate for two possible reasons. First, failure to account for adolescents' property crime victimizations may artificially deflate the measure of total number of victimizations experienced by the respondents. Secondly, if property crime victimizations were included, the mean number of victimizations experienced by respondents might differ from 1.78, which might in turn change the operationalization of polyvictimization; gender might matter, as well, if these victimizations were included. Although the operationalization of polyvictimization is appropriate based on the knowledge gained from the survey items, the results may need to be taken with some caution.

Another limitation relates to the measure of the main independent variable, parental criminality. The phrasing of parental criminality as whether a respondent's

parent(s) were in “trouble with the law” is ambiguous. While it is more conservative than, say, asking if a respondent’s parent(s) had ever done anything illegal, there is no information about what trouble with the law truly means. It is not known, for instance, whether parents were arrested or convicted, nor what kind of sanction, if any, they received.

An additional limitation relates to the cross-sectional nature of the National Survey of Adolescents. This makes it difficult to establish any sort of temporal ordering among the variables of interest. This study is not an attempt to establish a causal relationship between parental criminality and polyvictimization, but it would still be beneficial to ascertain whether parents’ trouble with the law preceded victimizations.

The National Survey of Adolescents is a dataset from 1995, over twenty years ago and a decade before Finkelhor and colleagues’ 2005 article coining the term polyvictimization. Thus, it could be argued that the data are old, creating an additional limitation surrounding the dataset. However, the strengths of the dataset outweigh the criticism about its age. The dataset included the variety of victimization variables, questions about delinquency, and a measure of parental criminality that is less restrictive than in many other datasets. Though other datasets were considered for this project, it was the National Survey of Adolescents that was chosen as having the best measures with which to test the research questions of interest. However, future research could attempt to replicate the study using a more contemporary data source for comparison.

Though the nationally representative nature of the National Survey of Adolescents is, in many ways, a strength, it is important to consider as a limitation that incarcerated youth were ineligible for participation in the study. These youth may be particularly vulnerable to polyvictimization, but their experiences are not captured here. Future research ought to consider a sample that includes both incarcerated and non-incarcerated juveniles as a way of accounting for possible selection biases.

The definitional ambiguity surrounding polyvictimization may limit the generalizability of the findings. While the definition used in the study follows prior research procedures based on nationally representative samples, the cut-off for polyvictimization differed. This nationally representative sample had a mean of 1.78 victimizations, making polyvictimization two or more victimizations, which is lower than some other sample averages from other studies. Because of the difference in definitions, even though the study uses a nationally representative sample, the generalizability of the findings should not be overstated. The study's use of multiple operationalizations of polyvictimization may aid in comparisons to other studies which employ the four or more victimizations definition, but may not totally ameliorate concerns about generalizability.

Future Directions

There are several directions for future research on the relationships of interest in this thesis. First, as stated previously, future work should attempt to clarify the definition of polyvictimization. Perhaps measuring it according to the sample mean number of types of victimizations experienced for each individual dataset is not the

most ideal way. Perhaps it would be better to decide on a strict cut-off point and consider poly-victims to be any individual who has experienced more types of victimizations than that point; this alternative will likely run into the problem of determining a cut-off point in a non-arbitrary way. It would benefit those researchers who study polyvictimization to have an agreed upon definition of polyvictimization and, in the absence of such, to be clear in publications about how they measured polyvictimization.

Another direction for further research is to study how family process variables may mediate the relationship between parental criminality and polyvictimization that were not considered using the current data. Such variables could include whether the parents have an intact marriage, measures of parental supervision of the child, measures of the amount of contact between parent and child, whether the criminal parent and child were of the same sex, and measures of parent-child attachment.

Finally, future research should continue to investigate whether gender moderates risk factors for polyvictimization. Gender was not a moderator in this study, but the body of literature would benefit from greater attention to how the experience of polyvictimization may differ according to gender.

Appendices

Table 1. Descriptive Statistics for Full Sample

Variable	N	Mean	Std. Deviation	Minimum	Maximum
Polyvictimization	3,847	0.436	--	0	1
Polyvictimization 4	3,847	0.146	--	0	1
Single Victimization	3,847	0.309	--	0	1
Parental Criminality	3,847	0.059	--	0	1
Zero Criminal Parents	3,847	0.942	--	0	1
One Criminal Parent	3,847	0.054	--	0	1
Two Criminal Parents	3,847	0.047	--	0	1
Male	3,847	0.5001	--	0	1
Violence Problem in Community	3,845	2.227	0.8781	0	4
Crime Problem in Community	3,846	2.428	0.8279	0	4
Number of People in Household	3,844	4.242	1.2892	1	11
City	3,847	0.215	--	0	1
Delinquency	3,847	0.972	1.1840	0	9
Age	3,847	14.5	1.6363	12	17
White	3,847	0.721	--	0	1
African-American	3,847	0.148	--	0	1
Other Race	3,847	0.081	--	0	1
Hispanic	3,847	0.096	--	0	1

Table 2. Descriptive Statistics for Poly-Victim (2+) Subsample

Variable	N	Mean	Std. Deviation	Minimum	Maximum
Number of types of victimizations	1,677	3.382	1.7843	2	14
Parental Criminality	1,677	0.089	--	0	1
Zero Criminal Parents	1,677	0.911	--	0	1
One Criminal Parent	1,677	0.082	--	0	1
Two Criminal Parents	1,677	0.008	--	0	1
Male	1,677	0.540	--	0	1
Violence Problem in Community	1,676	2.476	0.9002	0	4
Crime Problem in Community	1,676	2.546	0.8475	0	4
Number of People in Household	1,677	4.196	1.434	2	11
City	1,677	0.275	--	0	1
Delinquency	1,677	1.479	1.4427	0	8
Age	1,677	14.849	1.5754	12	17
White	1,677	0.647	--	0	1
African-American	1,677	0.211	--	0	1
Other Race	1,677	0.094	--	0	1
Hispanic	1,677	0.113	--	0	1

Table 3. Descriptive Statistics for Poly-victim 4 Subsample

Variable	N	Mean	Std. Deviation	Minimum	Maximum
Number of types of victimizations	561	5.398	1.7177	4	14
Parental Criminality	561	0.130	--	0	1
Zero Criminal Parents	561	0.870	--	0	1
One Criminal Parent	561	0.119	--	0	1
Two Criminal Parents	561	0.011	--	0	1
Male	561	0.544	--	0	1
Violence Problem in Community	561	2.684	0.9192	0	4
Crime Problem in Community	561	2.602	0.8847	1	4
Number of People in Household	561	4.159	1.5065	2	10
City	561	0.291	--	0	1
Delinquency	561	2.216	1.7913	0	8
Age	561	15.071	1.5452	12	17
White	561	0.565	--	0	1
African-American	561	0.271	--	0	1
Other Race	561	0.103	--	0	1
Hispanic	561	0.119	--	0	1

Table 4. Frequencies of Victimization Variables

Variable	Full Sample	Males (N=1,924)	Females (N=1,923)
Seen someone shoot someone	0.053	0.061	0.046
Seen someone cut/stab someone	0.112	0.124	0.100
Seen someone sexually assaulted/raped	0.028	0.017	0.039
Seen someone being mugged/robbed	0.116	0.146	0.086
Seen someone threatened with knife/gun	0.354	0.400	0.308
Seen someone beaten up/hit/punched	0.068	0.725	0.648
Unwanted penile sexual entry	0.218	0.005	0.039
Unwanted sexual entry with fingers/object	0.015	0.005	0.024
Unwanted sexual contact – oral	0.011	0.006	0.015
Unwanted touching of sexual parts	0.061	0.025	0.097
Forced touching of their privates	0.021	0.007	0.035
Sexual parts inside of their mouth/body	0.003	0.006	0.000
Attacked with weapon	0.047	0.058	0.036
Attacked without weapon	0.081	0.086	0.077
Threatened with gun or knife	0.064	0.081	0.047
Beaten up with object, hurt badly	0.047	0.058	0.035
Beaten up with fists, hurt badly	0.064	0.073	0.055

Note: For each variable, 0 = no, 1 = yes for experiencing/witnessing each type of violence

Table 5. Logistic Regression Models

	Model 1: Odds Ratio^{b,2} (SE)	Model 2: Odds Ratio^{n,2} (SE)	Model 3: Odds Ratio^{b,4} (SE)	Model 4: Odds Ratio^{n,4} (SE)
Parental Criminality	1.939*** (0.323)	1.793*** (0.273)	1.812*** (0.337)	1.638** (0.267)
Male	1.322*** (0.099)	1.319*** (0.098)	0.993 (0.107)	0.990 (0.107)
Violence in Community	1.563*** (0.072)	1.562*** (0.071)	1.643*** (0.102)	1.642*** (0.102)
Crime in Community	1.142** (0.054)	1.1438** (0.054)	1.091 (0.072)	1.092 (0.072)
Number of People in Household	1.006 (0.028)	1.006 (0.028)	1.009 (0.039)	1.010 (0.039)
City	1.303*** (0.123)	1.307** (0.123)	0.980 (0.125)	0.986 (0.125)
Delinquency	2.268*** (0.105)	2.267*** (0.105)	2.319*** (0.109)	2.321*** (0.109)
Age	1.102*** (0.026)	1.101*** (0.026)	1.071* (0.037)	1.070* (0.037)
African-American	2.489*** (0.270)	2.487*** (0.270)	2.770*** (0.370)	2.765*** (0.370)
Other race	1.383* (0.192)	1.382* (0.192)	1.311 (0.248)	1.306 (0.248)
Hispanic	1.244 (0.159)	1.245 (0.159)	1.111 (0.197)	1.114 (0.198)

Note: b = binary measurement of parental criminality; n = number of criminal parents; 2 = polyvictimization measured as 2+ victimizations; 4 = polyvictimization measured as 4+ victimizations
 * p<0.05 **p<0.01 ***p<0.001

Table 6. Logistic Regression Models by Gender

	Model 5: Male Odds Ratio^{b,2} (SE)	Model 6: Female Odds Ratio^{b,2} (SE)	Paternoster Test Statistic for Models 5 and 6	Model 7: Male Odds Ratio^{n,2} (SE)	Model 8: Female Odds Ratio^{n,2} (SE)	Paternoster Test Statistic for Models 7 and 8
Parental Criminality	2.324** (0.621)	1.669* (0.363)	0.911	1.893** (0.442)	1.674* (0.341)	0.392
Violence in Community	1.633*** (0.107)	1.495*** (0.096)	0.960	1.632*** (0.107)	1.495*** (0.096)	0.953
Crime in Community	1.091 (0.072)	1.201* (0.082)	-1.008	1.091 (0.072)	1.201* (0.082)	-1.008
Number of People in Household	1.006 (0.038)	1.007 (0.041)	-0.018	1.006 (0.038)	1.008 (0.041)	-0.036
City	1.442** (0.194)	1.199 (0.161)	0.964	1.449** (0.195)	1.201 (0.161)	0.981
Delinquency	2.100*** (0.124)	2.564*** (0.189)	-2.053*	2.103** (0.124)	2.557*** (0.188)	-2.016*
Age	1.092** (0.037)	1.109** (0.038)	0.951	1.091** (0.036)	1.110** (0.038)	-0.363
African-American	1.975*** (0.310)	3.128*** (0.477)	-2.027*	1.967*** (0.309)	3.129*** (0.474)	-2.054*
Other race	1.563* (0.313)	1.258 (0.245)	0.767	1.567* (0.313)	1.255 (0.245)	0.785
Hispanic	0.955 (0.177)	1.601** (0.284)	-1.930*	0.952 (0.176)	1.604** (0.284)	-1.951*

Note: b = binary measurement of parental criminality; n = number of criminal parents; 2 = polyvictimization measured as 2+ victimizations

N_{Male} = 1,924; N_{Female} = 1,923

* p<0.05 **p<0.01 ***p<0.001

Table 7. Multinomial Logistic Regression Models; Base Outcome Single Victimization

	Model 9: $\beta^{b,2}$ (SE)	Model 10: $\beta^{n,2}$ (SE)	Model 11: $\beta^{b,4}$ (SE)	Model 12: $\beta^{n,4}$ (SE)
Parental Criminality	0.404* (0.175)	0.382* (0.160)	1.812*** (0.337)	1.638** (0.267)
Male	0.165* (0.082)	0.163* (0.082)	0.993 (0.107)	0.990 (0.107)
Violence in Community	0.340*** (0.050)	0.340*** (0.050)	1.643*** (0.102)	1.642*** (0.102)
Crime in Community	0.105* (0.052)	0.105* (0.052)	1.091 (0.072)	1.092 (0.072)
Number of People in Household	0.007 (0.031)	0.007 (0.031)	1.009 (0.039)	1.010 (0.039)
City	0.205* (0.104)	0.207* (0.104)	0.980 (0.125)	0.986 (0.125)
Delinquency	0.647*** (0.049)	0.646*** (0.049)	2.319*** (0.109)	2.321*** (0.109)
Age	0.065* (0.026)	0.065* (0.026)	1.071* (0.037)	1.070* (0.037)
African-American	0.809*** (0.122)	0.808*** (0.122)	2.770*** (0.370)	2.765*** (0.370)
Other race	0.254 (0.151)	0.252 (0.151)	1.311 (0.248)	1.306 (0.248)
Hispanic	0.175 (0.140)	0.175 (0.140)	1.111 (0.197)	1.114 (0.198)

Note: b = binary measurement of parental criminality; n = number of criminal parents; 2 = polyvictimization measured as 2+ victimizations; 4 = polyvictimization measured as 4+ victimizations
 * p<0.05 **p<0.01 ***p<0.001

Table 8. Multinomial Logistic Regression Models; Base Outcome No Victimization

	Model 9: $\beta^{b,2}$ (SE)	Model 10: $\beta^{n,2}$ (SE)	Model 11: $\beta^{b,4}$ (SE)	Model 12: $\beta^{n,4}$ (SE)
Parental Criminality	1.294*** (0.273)	1.083*** (0.249)	1.580*** (0.307)	1.298*** (0.278)
Male	0.475*** (0.093)	0.472*** (0.093)	0.360** (0.129)	0.354** (0.129)
Violence in Community	0.624*** (0.058)	0.624*** (0.058)	0.880*** (0.078)	0.879*** (0.078)
Crime in Community	0.181** (0.060)	0.181* (0.060)	0.196* (0.080)	0.196* (0.080)
Number of People in Household	0.006 (0.035)	0.006 (0.035)	0.014 (0.047)	0.014 (0.047)
City	0.373** (0.125)	0.377** (0.125)	0.266 (0.161)	0.273 (0.161)
Delinquency	1.189*** (0.069)	1.189*** (0.069)	1.655*** (0.080)	1.655*** (0.080)
Age	0.136*** (0.030)	0.136*** (0.030)	0.147*** (0.042)	0.147*** (0.042)
African-American	1.099*** (0.146)	1.098*** (0.146)	1.639*** (0.180)	1.636*** (0.180)
Other race	0.458* (0.180)	0.459* (0.180)	0.562* (0.236)	0.562* (0.236)
Hispanic	0.289 (0.166)	0.291 (0.166)	0.322 (0.219)	0.327 (0.219)

Note: b = binary measurement of parental criminality; n = number of criminal parents; 2 = polyvictimization measured as 2+ victimizations; 4 = polyvictimization measured as 4+ victimizations
 * p<0.05 **p<0.01 ***p<0.001

Figure 1. Hypothesized Relationships between Parental Criminality, Polyvictimization, and Delinquency

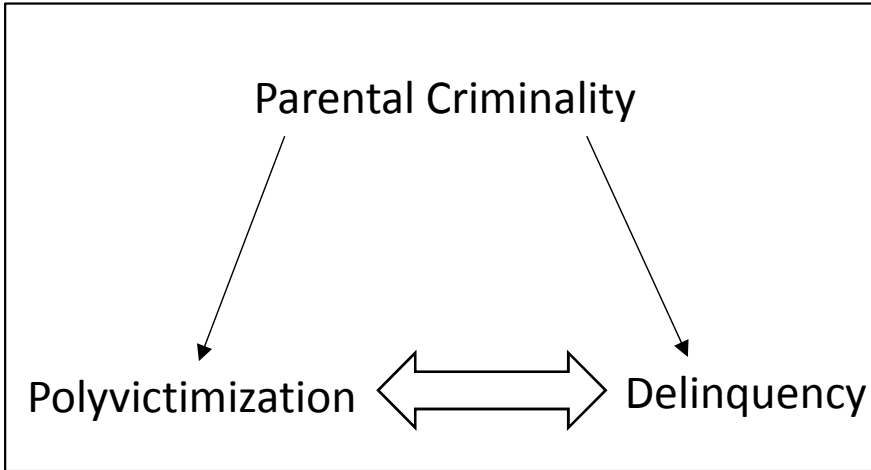
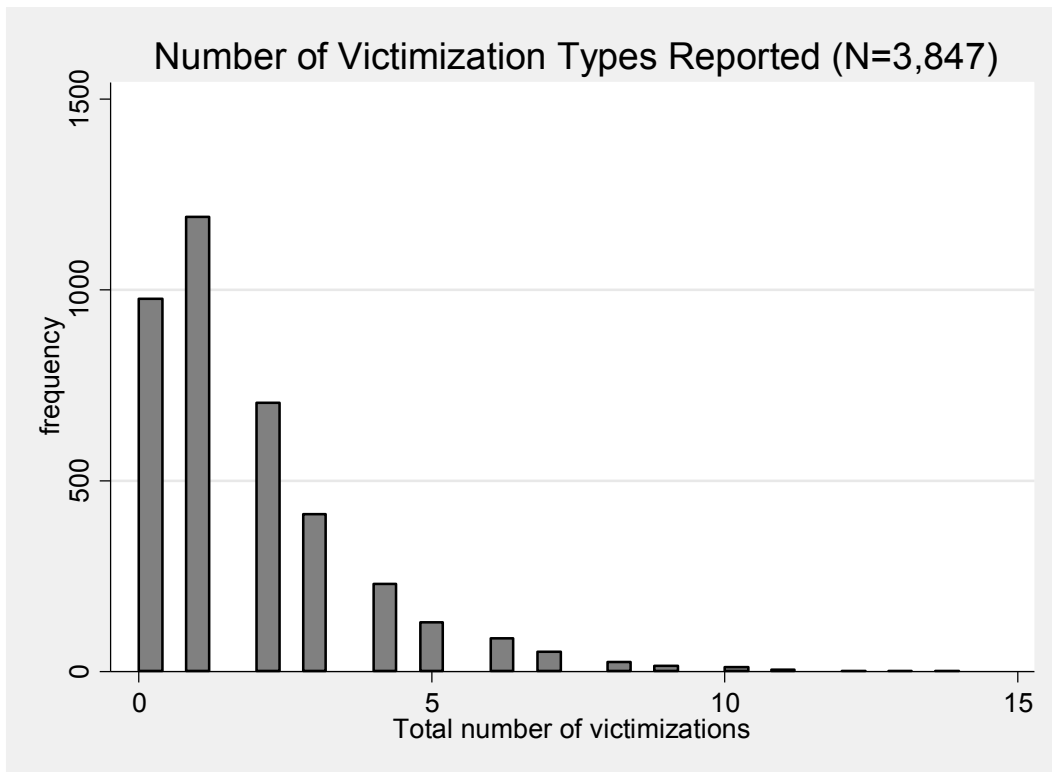


Figure 2. Distribution of Total Number of Victimization Types Reported by the Sample



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