CONCEPTUALIZING POLY-VICTIMIZATION: EXPLORING THE LONG-TERM EFFECTS UTILIZING CONSTRUCTIVIST SELF-DEVELOPMENT THEORY

A Dissertation

Presented to

The Graduate Faculty of The University of Akron

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

Jessica Richmond Moeller

May, 2011

CONCEPTUALIZING POLY-VICTIMIZATION: EXPLORING THE LONG-TERM EFFECTS UTILIZING CONSTRUCTIVIST SELF-DEVELOPMENT THEORY

Jessica Richmond Moeller

Dissertation

Approved:	Accepted:
_____	_____
Advisor Dr. James R. Rogers	Department Chair Dr. Karin Jordan
_____	_____
Committee Member Dr. John E. Queener	Dean of the College Dr. Mark D. Shermis
_____	_____
Committee Member Dr. Ingrid Weigold	Dean of the Graduate School Dr. George R. Newkome
_____	_____
Committee Member Dr. Dawn Johnson	Date
_____	
Committee Member Dr. Renee Mudrey-Camino	

ABSTRACT

Victimization in childhood (e.g. neglect, physical abuse, sexual abuse, bullying, etc.) is considered to be a widespread societal problem. Researchers and clinicians working in this area have recently contended that children exposed to one act of victimization in childhood are at an increased risk for exposure to additional acts of childhood victimization. This exposure to high levels of victimization in childhood has been term "poly-victimization." While researchers have recently begun to examine the short- and long-term effects of poly-victimization, two significant limitations of the current literature present themselves. First, the studies to date have been inconsistent in their definition and assessment of poly-victimization. This inconsistency leaves questions regarding the interpretation and generalizability of the findings across studies. The present study examined several methods of assessing poly-victimization that have been used in the current literature to determine whether one method of assessing poly-victimization was more effective than another. The second limitation is the tendency of past research to be atheoretical. Specifically, previous studies have focused primarily on symptoms associated with victimization in childhood, neglecting to explore possible underlying psychological constructs which may influence the development of psychological distress. The current study provides some preliminary exploration of Constructivist Self Development Theory (CSDT), focusing specifically on the

development of self-capacities, as a plausible explanation behind the psychological distress often associated with childhood victimization.

A sample of 738 undergraduate students were recruited to examine the research hypotheses for this study. Results regarding the effectiveness of the various methods of assessing poly-victimization were mixed. Findings showed a moderate association between poly-victimization and psychological distress, regardless of the method used to assess poly-victimization. Consistent with past research, poly-victims reported greater psychological distress than did non poly-victims. Effect sizes varied depending on the method and dependent variables assessed. Finally, a significant relation between impairment in self-capacities and a history of poly-victimization was observed. Specifically, poly-victims reported greater impairment in their self-capacities than did non poly-victims. This finding provides preliminary support for CSDT as a possible explanation for the development of psychological distress in individuals with a history of poly-victimization and encourages further research in this area.

ACKNOWLEDGEMENTS

So many people have supported me throughout my education and particularly through this dissertation process. Without this support I could not have completed my doctoral degree as timely as I have.

First I want to thank my largest and most important supporter, my husband, Keith. Without your unwavering understanding, encouragement, and level-headedness during my meltdowns, the last five years would have been ten times more stressful. Your pride in me and what I am striving to accomplish means so much. Perhaps my biggest motivator, I also want to thank our son, Mason, whose early arrival gave me the last big push I needed to write my Chapter 5. Thank you, Munch, for being so good and taking long naps while Mommy was frantically writing!

I want to thank my parents for always believing in me and encouraging me to shoot for the stars. All three of you have supported me in whatever ways you could throughout my education and I appreciate that so much.

I want to thank my chair, Dr. Jim Rogers, for sticking with me throughout this long process and putting up with my occasional anxiety. It took a few tries but we finally hammered out a study that I feel very proud of!

I want to thank my committee members for all their time spent reading my long drafts and for their thoughtful and extremely helpful suggestions during my proposal and defense. Finally, I want to thank Dr. Ann Elliott and my internship cohort for all their support and help recruiting subjects for this study, I couldn't have done it without you!

TABLE OF CONTENTS

Page

LIST OF FIGURES

Figure Page

LIST OF TABLES

CHAPTER I

STATEMENT OF THE PROBLEM

Overview

The purpose of the present study is two-fold. First, the long-term effects of exposure to multiple acts of maltreatment in childhood, or poly-victimization, will be examined within the framework of Constructivist Self-Development Theory and its emphasis on self-capacities (McCann & Pearlman, 1990). Second, this study will explore several different ways of measuring poly-victimization using the Juvenile Victimization Questionnaire (JVQ; Hamby, Finkelhor, Ormrod, & Turner, 2005) and determine which method is the most effective. The idea that individuals who have been exposed to one act of victimization in childhood are at an increased risk for exposure to additional acts of childhood victimization or poly-victimization is a relatively newer concept in the child maltreatment literature, and therefore has only been empirically examined to a limited extent. This concept has been labeled with various terms (e.g. poly-victimization, multi-type maltreatment, multiple victimization) and defined in slightly different ways depending upon the research study (e.g. Finkelhor, Ormrod, Turner, & Hamby, 2005a; Higgins & McCabe, 2000a; Martsolf, Draucker, & Chapman, 2004). For simplicity sake, the act of experiencing multiple victimizations in childhood will be referred to as "poly-victimization" throughout this study. Finally, because both researchers and clinicians are

becoming more aware that maltreated children are rarely exposed to only one type of maltreatment in isolation (Saunders, 2003), it is important to develop measures that comprehensively assess the broad range of traumatic experiences one may be exposed to in childhood and incorporate these measures in future research. This study utilizes one of the most recently designed and most comprehensive childhood victimization measures, the Juvenile Victimization Questionnaire.

Clarification of Key Concepts

It is necessary to briefly clarify the terminology that will be used throughout the next five chapters. The terms "maltreatment" and "victimization" as related to childhood abuse and neglect are often used interchangeably in the existing child abuse literature. Both terms relate to general acts of victimization one may experience in childhood, including but not limited to, emotional abuse, physical abuse, sexual abuse, neglect, bullying, property crime, and witnessing domestic violence. One could argue that child maltreatment refers more specifically to acts of abuse (physical, sexual, emotional, neglect) whereas childhood victimization applies more broadly to acts of abuse as well as acts of bullying, vandalism, robbery, and so on. However for the purpose of the present study, these terms will be used interchangeably to reflect any of the 33 acts of victimization assessed by the Juvenile Victimization Questionnaire (discussed later). Finally, the term poly-victimization reflects exposure to high levels of victimization or multiple acts of victimization as assessed by the JVQ. What qualifies as "high levels" is one focus of the present study and will be discussed further in Chapter 3.

Child Maltreatment

Every year, hundreds of thousands of children in the United States become victims of maltreatment. According to the National Child Abuse and Neglect Data System (NCANDS) (U.S. Department of Health and Human Services [DHHS], 2009), in 2007 there were 3.2 million referrals for assessments of possible child maltreatment reported to Child Protective Services (CPS) agencies, involving approximately 5.8 million children. Of those 3.2 million referrals, 61.7% were "screened in" for some kind of investigation or assessment, and the remaining 38.2% were "screened out," not receiving any further involvement from CPS (DHHS, 2009). Almost 25% of the investigations or assessments conducted on the screened in referrals led to the discovery of at least one child who was being maltreated. Thus in 2007, approximately 794,000 children were reportedly the victims of some type of maltreatment, for a victimization rate of 10.6 per 1,000 children in the U.S. population.

According to NCANDS (DHHS, 2009), the most common form of childhood maltreatment was neglect, affecting 59% of the children; followed by physical abuse (10.8%), sexual abuse (7.6%), and psychological maltreatment (4.2%). Approximately 13% of the children were victims of multiple types of maltreatment and 4.2% experienced some type of maltreatment that fell in NCANDS's "other" category (e.g. abandonment, threats of harm to the child, and congenital drug addiction). As alarming as these numbers are, it is important to bear in mind the limitations of these incidence rates. First and foremost, these data only reflect the child maltreatment cases that have been reported and verified. Unfortunately, not all reports of maltreatment are verifiable

(DHHS - Office of Child Abuse and Neglect, 2003). Even more concerning is the large portion of child maltreatment cases that go unreported (DHHS, 2003). The Third National Incidence Study of Child Abuse and Neglect (NIS-3) conducted in 1993 surveyed professionals from the community (e.g. mental health care providers, teachers, medical professionals, law enforcement) who came in contact with children who had been maltreated. This study was designed to "estimate the actual number of abused and neglected children nationwide including both cases reported and cases not reported to CPS" (DHHS, 2003, p. 25). Findings from the NIS-3 study indicated that less than one third of the children identified as having experienced maltreatment had been investigated by CPS (DHHS, 2003). This information suggests that the incidence rates indicated earlier likely underestimate the actual number of child maltreatment victims in a given year. The fourth National Incidence Study is currently underway and is expected to provide an updated estimate of the incidence rate.

A second limitation of these NCANDS statistics is the varying definitions used to determine what qualifies as child maltreatment. According to NCANDS (DHHS, 2009):

> Each state has its own definitions of child abuse and neglect based on minimum standards set by Federal law. Federal legislation provides a foundation for States by identifying a minimum set of acts or behaviors that define child abuse and neglect. (p. xi)

This minimum set of acts and behaviors is defined by the Federal Child Abuse Prevention and Treatment Act (CAPTA) as:

> Any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse or exploitation; or an act or failure to act which presents an imminent risk of serious harm. (DHHS, 2009, p. xi)

These minimum guidelines, therefore, leave the decision of which specific acts constitute harm or risk of harm to a child up to the individual states. As such, it is possible that states may have higher or lower child maltreatment incidence rates based on having broader or narrower inclusion criteria. Furthermore, these incidence rates are based on state definitions that focus primarily on neglect, physical abuse, sexual abuse, and psychological maltreatment by parents or caretakers (DHHS). Therefore, additional types of maltreatment such as abuse by strangers (e.g. rape), peers (e.g. bullying), and significant others (e.g. adolescent partner violence) are largely unrepresented in these numbers. Despite the definitional problems inherent in identifying the occurrence of child abuse, the information presented above indicates that child maltreatment is a major societal problem.

Because abuse and neglect are so prevalent in our society, the short- and long-term effects of these different types of child maltreatment have been the subject of psychological research for over forty years (Beitchman, Zucker, Hood, DaCosta, Akman, & Cassavia, 1992; Kendall-Tackett, Williams, & Finkelhor; 1993; Myers, Berliner, Briere, Hendrix, Jenny & Reid, 2002). In that time, it has become well-established that experiencing some type of maltreatment in childhood (e.g. sexual abuse, physical abuse, neglect, etc.) may have deleterious effects on the individual's functioning in adulthood (Beitchman et al.; Briere & Runtz, 1993; Elam & Kleist, 1999; Hildyard & Wolfe, 2002; Jumper, 1995; Malinosky-Rummell & Hansen, 1993; Messman-Moore & Coates, 2007; Neumann, Houskamp, Pollock, & Briere, 1996). For example, past research has documented a relation between the experience of maltreatment in childhood and many

adverse outcomes in adulthood including but not limited to, psychological distress (e.g. depression, post-traumatic stress disorder; Flisher, Kramer, Hoven, Greenwald, Bird, Canino, et al., 1997; Gold, Lucenko, Elhai, Swingle, & Sellers, 1999; Hart, Brassard, Binggeli, & Davidson, 2002; Neumann et al.), poor physical health (e.g. more physical health symptoms, health-risk behaviors – smoking, overeating; Green, Flowe-Valencia, Rosenblum, & Tait, 1999; Leserman, Drossman, Li, Toomey, Nachman, & Glogau, 1996; Moeller, Bachmann, & Moeller, 1993; Newman, Clayton, Zuellig, Cashman, Arnow, Dea, et al., 2000), eating disorders (Messman-Moore & Garrigus, 2007), interpersonal relationship difficulties (DeLillo & Long, 1999; Kolko, 2002), substance abuse (Kaplan, Pelcovitz, Salzinger, Mandel, & Weiner, 1998), and a tendency toward violence, delinquency and criminality (Cuevas, Finkelhor, Ormrod, & Turner, 2007; Kolko; Malinosky-Rummell & Hansen).

Although research has demonstrated the detrimental effects that experiencing maltreatment in childhood can have on individuals in adulthood (Myers et al., 2002), there are also indications that many individuals remain asymptomatic into adulthood (Farber & England, 1987). The resilience literature in particular has shown that not all individuals who experience maltreatment during childhood later manifest psychological, behavioral, or physical symptoms in adulthood (DHHS, 2003; Heller, Larrieu, D'Imperio, & Boris, 1999; Masten & Wright, 1998). The reasoning for why some maltreated individuals experience long-term difficulties and others do not is far from clear, but tentative hypotheses have been offered. Examples of proposed mediators which may buffer the negative effects of child maltreatment include social support from

parents or other trusted adults, and personal characteristics of the child such as optimism, intelligence, and high self-esteem (Egeland, Carlson, & Stroufe, 1993; Heller et al.; Thomlison, 1997). Despite efforts that have been made to better understand these potential mediators that buffer against negative outcomes (e.g. depression, anxiety, low self-esteem), we are still far from understanding how or why these negative outcomes develop in the first place.

Until recently, the child maltreatment literature has been largely atheoretical, focusing more on symptoms associated with experiencing maltreatment as a child rather than the underlying psychological constructs that may offer some explanation for why these symptoms do or do not occur (Brock, Pearlman, & Varra, 2006). Constructivist Self-Development Theory (CSDT; McCann & Pearlman, 1990) is one theory that has been offered to explain the potential impact that maltreatment may have on the child's developing sense of self and in turn may explain the long-term effects that are sometimes observed in adulthood because of this experience.

Constructivist Self-Development Theory

CSDT focuses on the interaction between the person and the situation, with particular focus on the self in development (McCann & Pearlman, 1990), and combines aspects of social learning, psychoanalytic theory, self psychology and cognitive development (Brock et al., 2006). McCann and Pearlman proposed that:

> adaptation to trauma is a result of a complex interplay between life experiences (including personal history, specific traumatic events, and the social and cultural context) and the developing self (including self capacities [ability to regulate self-esteem], ego resources [serve to regulate interactions with others], psychological needs [which motivate behavior], and cognitive schemas about self and world). (p. 6)

Self capacities are the primary foundation of CSDT. Self capacities are "inner abilities that allow an individual to maintain a consistent, cohesive sense of self" (Pearlman, 1998; p. 9) and are developed thorough early relationships with caregivers. CSDT describes three self capacities: a) the ability to maintain a sense of connection with others; b) the ability to experience, tolerate, and integrate strong affect; and c) the ability to maintain a sense of self as viable, benign, and positive (Brock et al., 2006).

Applying CSDT specifically to adult survivors of childhood maltreatment, Pearlman (1998) described the developmental impact that abuse and neglect can have on each self capacity. First, maltreatment by caregivers, peers, and siblings affects one's ability to connect with others because these negative interactions disrupt the internalization of a loving, protective presence. Therefore, children who are maltreated may learn that they are helpless, vulnerable, and unable to count on protection from others. Moreover, poor development of the ability to interact with others can interfere with the development of the other two self capacities. Often when a child lives in an abusive and unstable home, expression of her feelings and emotions is discouraged which may impede her affect regulation and tolerance (Pearlman). Brock and colleagues (2006) expanded on the effect of maltreatment on development of affect regulation, suggesting:

> If a child's needs are not met, the child may come to experience normal needs and feelings with self-loathing and shame. If feelings are not recognized or named, feelings may become disavowed or inaccessible to the child. (p. 106)

Finally, when a child's existence or accomplishments are ignored by his caregivers it may be difficult for her or him to develop a sense of self-worth. The child may also interpret the abuse by the caregiver as being "reserved" particularly for him

because of his “special status” (McCann & Pearlman, 1990). Pearlman (1998) further explained how this belief could negatively affect the child's self-perception and self-esteem:

> The natural desire every child has to feel special becomes tainted, again leading to confusion, self-abnegation, shame, and self-loathing. Identification with the abuser’s projections onto the victim or internalization of the self as described by the abuser’s words and behaviors also result in confusion and profound self-loathing. (p. 11)

In the ways discussed here, experiencing maltreatment in childhood can disrupt the child's normal development.

While CSDT primarily focuses on disruptions in self-capacities “caused” by early abuse from a caretaker, it is important to keep in mind that not all child maltreatment is perpetrated by a caretaker. Although not yet empirically studied, it is possible that maltreatment by non-caretakers or other childhood traumas (i.e. being mugged, witnessing domestic violence, severe bullying) could also impede the development of self-capacities. For example, experiencing frequent bullying at school may cause a child to become withdrawn at home. Thus, although self-capacities are hypothesized to develop through early relationships with caregivers experiences of victimization outside of the home may influence these early relationships.

In summary, CSDT suggests that the myriad psychological, behavioral, and physical symptoms experienced by adult survivors of childhood maltreatment may actually be manifestations of these inadequately developed self capacities. Perhaps, because the concept of poly-victimization is so new, it has not yet been specifically linked to CSDT. Instead researchers in this area have focused particularly on the relation

between various types of child maltreatment in isolation and impaired self-capacities (Brock et al., 2006; Deiter, Nicholls, & Pearlman, 2000; Pearlman, 1998). However the extension of CSDT from individual acts of maltreatment to multiple acts of maltreatment seems logical. Specifically, if exposure to one act of maltreatment in childhood is suggested to negatively affect the development of the child's self-capacities, it follows that exposure to multiple acts of maltreatment may have an even greater negative impact. This hypothesis will be explored in the current study.

The previous sections have outlined the prevalence of childhood maltreatment, the possible long-term effects of such maltreatment that have been widely studied in the literature, and CSDT as a theory to help explain why these outcomes occur. The next section briefly addresses the child maltreatment literature as a whole, identifies some limitations within the existing literature, and the concept of poly-victimization - a relatively new direction that the maltreatment literature may be heading in, which is the focus of the present study.

Limitations of the Existing Child Maltreatment Literature

Although extensive and extremely important, the existing child abuse and maltreatment literature suffers from several limitations. Two of the most significant limitations to be discussed in this section are: 1) lack of standardized, psychometrically sound measures to assess for a comprehensive history of childhood victimization, and 2) the tendency for researchers to focus on only one or two types of victimization in a single study (Hamby & Finkelhor, 2000; Higgins & McCabe, 2001a).

The first significant limitation of the child abuse literature is the paucity of standardized, psychometrically sound instruments to measure exposure to a broad range of childhood victimization. A common scenario observed in the methodology section of the child maltreatment literature is that the researchers design their own child maltreatment questionnaire based upon the types of victimization they are most interested in assessing (Hulme, 2004). These questionnaires are most often developed for a one time use and involve a review of the literature to survey what other researchers have done. Many times the author-constructed questionnaire for one study is requested by another researcher and slightly modified to fit the new study. It is extremely rare that any psychometric data such as validity or reliability statistics are reported in the method section of these studies (Hulme).

One of the primary reasons that researchers have not made a concentrated effort to develop standardized measures of childhood victimization is that definitions of what qualifies as each type of child maltreatment vary considerably. As noted earlier, the legal definitions of the different types of maltreatment used for reporting situations vary considerably from state to state. The same problem exists in the literature when defining child maltreatment for research purposes. For example, some definitions of childhood sexual abuse only include acts involving penetration (Haugaard, 2000), whereas other definitions include non-contact acts such as being forced to watch pornography or witnessing someone exposing himself (Finkelhor, 1994). Likewise, definitions of physical abuse vary by whether an injury must occur for the act to qualify as abuse or whether the act must be perpetrated by a caregiver (Manly, 2005). The ambiguity

surrounding which acts qualify as abuse makes it very difficult for professionals to generalize or compare findings of one child maltreatment study to another.

Although standardized childhood victimization measures are the exception rather than the rule, several have been developed in recent years, including the Juvenile Victimization Questionnaire (JVQ; Hamby et al., 2005) which will be used in the present study. Despite being one of the most comprehensive measures available, the JVQ has only been minimally utilized in the extant child maltreatment and poly-victimization research. The utility of the JVQ in assessing poly-victimization has not yet been clearly demonstrated in the literature. One reason for this is the lack of consensus on how best to define and measure poly-victimization. Thus, the second purpose of this study is to explore alternative ways to measure poly-victimization. A critical review and analysis of the current literature on child maltreatment measures and research methodology will be provided in the next chapter.

The second significant limitation of the child maltreatment literature is that many studies examining the short- and long-term effects of childhood maltreatment have focused exclusively on one or at most two types of maltreatment. This is problematic for several reasons. First, focusing on only one or two types of childhood victimization provides a narrow and limited understanding of the possible effects of childhood maltreatment (Hamby & Finkelhor, 2000). For example, most of the existing child maltreatment literature has focused primarily on childhood sexual and physical abuse (Higgins & McCabe, 2001a); however these are not the only types of maltreatment that an individual may experience in childhood. Considerably less emphasis has been placed

on the effects of emotional abuse or psychological abuse, emotional and physical neglect, and witnessing or indirect violence (e.g. witnessing domestic violence) (Brock et al., 2006; Higgins & McCabe, 2000b; 2001a; 2003; Martsolf et al, 2004; DHHS, 2003). Given that neglect is the most commonly experienced form of maltreatment in childhood (DHHS, 2009), the lack of consideration given to this experience in the child maltreatment literature is concerning. In order to truly understand the effects of childhood maltreatment, it is important to examine a broad range of victimization.

Another, and perhaps more important, problem with focusing exclusively on the effects of only one or two types of victimization is that individual types of childhood victimization seldom occur in isolation. More and more research is being reported which demonstrates that individuals who experience one type of maltreatment in childhood, are often exposed to additional types of maltreatment (Finkelhor, Ormrod, et al., 2005a; Finkelhor, Ormrod, & Turner, 2007a; Finkelhor, Ormrod, & Turner, 2007b; Higgins & McCabe, 2000a; Richmond, Elliot, Pierce, Aspelmeier, & Alexander, 2009). Specifically, research has found that individuals often experience at least two types of abuse and may experience up to six different types of maltreatment (Higgins & McCabe; Richmond et al.). For example, when examining the long-term effects of childhood victimization on psychological distress in a sample of 311 college-age women, Richmond and colleagues (2009) examined six victimization subscales (property crime, physical assault, child maltreatment, peer or sibling victimization, witnessed or indirect victimization, and sexual victimization) as defined by the JVQ. The results showed that the median number of childhood victimizations experienced by this college sample was

eight. Further, approximately 42% of their sample had experienced acts of victimization in either five or six of the subscales. Using a different measure of childhood maltreatment (i.e. Comprehensive Child Maltreatment Scale; Higgins & McCabe, 2001b) with five scales (sexual abuse, physical abuse, psychological maltreatment, neglect, and witnessing family violence), Higgins and McCabe (2000a) observed similar results in their study with an adult community sample. Of the 42% of their sample who were classified as having experienced multiple types of maltreatment, 15.4% scored high on two maltreatment scales, 11.4% scored high on three scales, 9.7% on four, and 6.9% scored high on all five scales. These studies provide some initial information on the prevalence of experiencing multiple types of maltreatment in childhood as assessed through retrospective reports. These preliminary statistics combined with the general consensus of the limited poly-victimization literature (Clemmons, Walsh, DiLillo, & Messman-Moore, 2007; Finkelhor, et al., 2007a; 2007b; Higgins & McCabe, 2000a; 2001b; Messman-Moore & Garrigus, 2007; Richmond et al., 2009) indicate that experiencing multiple forms of victimization is common in a variety of samples. Thus, one can infer that exposure to multiple types of maltreatment is an area in need of further exploration. Moreover, the apparent prevalence of poly-victimization makes a stronger argument in favor of examining the hypothesized relation between greater impairment in self-capacities and multiple victimizations in childhood.

Importance of Assessing Multiple Forms of Victimization

The increasing awareness of the large number of individuals who experience multiple types of maltreatment (i.e. poly-victimization) in childhood has several

implications when interpreting the existing literature on the effects of child maltreatment. To start, now that researchers have evidence that many individuals who experience one type of maltreatment often experience additional maltreatment types, the results found by past researchers may be called into question. For example, although strong correlations between experiencing childhood sexual abuse and various negative outcomes (e.g. PTSD, low self-esteem, depression, etc.) have been reported by many researchers across multiple studies (e.g., Arnow, Hart, Scott, Dea, O'Connell, & Taylor, 1999; Batten, Follette, & Aban, 2001; Clum, Calhoun, & Kimmerling, 2000; Finestone, Stenn, Davies, Stalker, Fry, & Koumanis, 2000; Polusny, Rosenthal, Aban, & Follette, 2004; Steel, Sanna, Hammond, Whipple, Cross, 2004), these studies only examined childhood sexual abuse and did not assess or control for the effects of additional types of victimization. As such, we can no longer be sure that the relation observed was due specifically to childhood sexual abuse alone. It is equally probable that sexual abuse in combination with some unstudied type of victimization is a better explanation for the relations observed (Finkelhor, Ormrod, et al., 2005a). Put more simply, past studies that only assessed one type of victimization may have unknowingly exaggerated the effect of that victimization type by failing to assess for the effect of additional victimization experiences (Higgins & McCabe, 2001a). This is not to say that researchers should stop examining the effects of specific abuse types all-together. Rather, researchers need to make an effort to assess and control for all other types of maltreatment that may have co-occurred with the abuse of interest. By controlling for these other types of abuse, researchers can be more confident that the relations they are observing are truly associated with their variable of interest

(e.g. sexual abuse) and not the combined effect of multiple forms of maltreatment. Wolfe and McGee (1994) succinctly note "it may be misleading to study the impact of any particular form of maltreatment without controlling for or measuring the full range of maltreatment experiences" (p. 179). This further demonstrates the need for psychometrically sound measures that comprehensively assess a broad range of childhood maltreatment behaviors.

A second implication to consider is that past literature has almost completely neglected the possible interaction that may exist between the different types of victimization (Hamby & Finkelhor, 2000). As such, the possible short- and long-term effects of these interactions have also been neglected. It may be possible that certain combinations of maltreatment types may be associated with outcomes that are not identified when the maltreatment types are examined separately. It is also possible that certain combinations of maltreatment (e.g. experiencing sexual abuse, physical abuse, and neglect) have more detrimental effects than others (e.g. witnessing domestic violence and experiencing psychological maltreatment) (Higgins & McCabe, 2001a; Ney, Fung, & Wicket, 1994). Many of the clinical and research implications suggested by past literature on single maltreatment types will need to be reexamined with this new information taken into account.

The points discussed here combined with the prevalence rates observed in early studies of poly-victimization, provide compelling evidence for the importance of investigating the long-term effects poly-victimization. CSDT, as will be discussed more fully in the next chapter, provides a logical framework for which to examine these

effects. The next section introduces the literature on poly-victimization, highlights the research limitations, and describes the gaps the present study aims to fill.

Poly-Victimization Literature

Given the mounting evidence that suggests individuals who are exposed to one form of victimization during childhood are at an increased risk for experiencing additional forms of victimization, researchers have recently begun to examine the effects of multiple types of victimization in childhood. To date a small amount of research examining the effects of experiencing multiple types of victimization in childhood has been conducted, and has produced interesting and relevant results. Specifically, tentative relations have been observed between experiencing multiple types of victimization and psychological distress (Clemmons et al., 2007; Higgins & McCabe, 2000a; 200b; Richmond et al., 2009); poor adjustment to college (Elliott, Alexander, Pierce, Aspelmeier, & Richmond, 2009); and trauma symptoms in childhood (Finkelhor, Ormrod, et al., 2005a; Finkelhor et al., 2007a; 2007b). However, because this is a relatively new area of exploration, the literature is plagued by many limitations. Three of these limitations are discussed next.

Perhaps the most significant limitation is the lack of agreement on how to define or conceptualize poly-victimization. At this point in the literature, two ways of defining and/or conceptualizing the classification of having experienced multiple types of maltreatment in childhood seem to have emerged. These conceptualizations differ largely because of the different assessment instruments the researchers use to measure a history of childhood maltreatment. The first option, and the one utilized in the present

study, for defining this concept is the term “poly-victimization.” Poly-victimization is a term coined by Finkelhor and colleagues (2005a) to describe exposure to higher levels of victimization or multiple victimizations in childhood. Level of poly-victimization is assessed by the individual's score on a relatively new measure called the Juvenile Victimization Questionnaire (JVQ; Hamby et al., 2005). The JVQ examines exposure to 33 different acts of childhood victimization and will be described in detail in the next chapter. Presently, the method for determining poly-victimization cut-offs for who is classified as a poly-victim using the JVQ is quite arbitrary. Finkelhor's group (2005a) suggested several categorical ways in which the JVQ may be used to determine level of poly-victimization. However, the developers of the JVQ acknowledged the need for future research to validate their methods for establishing poly-victimization cut-offs and assist in deciding how best to conceptualize poly-victimization. The present study will address these issues and examine the feasibility of using both continuous and categorical measures of poly-victimization as assessed by the JVQ.

The work by Higgins and McCabe (2000a; 2000b) describes an alternative way of conceptualizing exposure to multiple types of victimization. These authors coined the term *multi-type maltreatment* defined as the coexistence of one or more of the following categories of child maltreatment: sexual abuse, physical abuse, psychological maltreatment, neglect, or witnessing family violence. This term stems from the development of the researchers’ own assessment measure entitled the Comprehensive Child Maltreatment Scale (CCMS; Higgins & McCabe, 2001b). The CCMS is comprised of five subscales (e.g. sexual abuse, physical abuse, psychological maltreatment, neglect,

and witnessing family violence), and individuals are defined as having experienced multi-type maltreatment if they score highly on three or more of the five subscales (Higgins & McCabe, 2000a).

Both of these ways of conceptualizing exposure to multiple types of victimization in childhood are relatively new, and each is based on the utilization of a specific assessment tool. The differences in the design of these two measures are great and will be discussed in more detail in the next chapter, however a brief explanation of differences between the conceptualization of poly-victimization versus multi-type maltreatment is warranted here. Using the CCMS, Higgins and McCabe (2000a) calculate an individual score and a sample mean score for each of the five subscales. If the individual's score is above the mean score for a subscale, they are classified as having experienced that type of maltreatment. If the individual's scores on three or more of the subscales are higher than the means, they are classified as having experienced multi-type maltreatment. Therefore the conceptualization of *multi-type maltreatment* means an individual has experienced three or more different types of maltreatment. Interestingly, experiencing two types of maltreatment does not appear to qualify as multi-type victimization, although Higgins and McCabe did not specify why a cut-off of three subscales is used to determine multi-type maltreatment.

The concept of poly-victimization is slightly more complex. Hamby and colleagues' (2005) JVQ asks for individuals to report the number of times they experienced each of 33 different acts of victimization (e.g. hit or attacked with an object or weapon; made to do sexual things by another child or teen; witness a parent getting hit

by another parent) ranging from zero to five or more times. The JVQ has five subscales, which the developers term "modules" but will be referred to as subscales from this point on; including conventional crime, sexual victimization, child maltreatment, peer/sibling victimization, and witnessing or indirect victimization. The most common method of determining an individual's level of poly-victimization using the JVQ is to add up the number of victimizations experienced and apply a poly-victimization cut-off (typically one higher than the sample mean number of victimizations) (Finkelhor, Ormrod, et al., 2005a). Therefore the average number of victimizations experienced by the sample is calculated and individuals who experienced at least one victimization greater than the mean are classified as poly-victims. Although the scoring sounds similar to the CCMS, it is important to note that when determining level of poly-victimization, the JVQ is looking at the number of *acts of victimization* as opposed to the number of *types of maltreatment*. In other words whereas the CCMS requires the experience of at least three different types of maltreatment to be classified as a multi-type maltreatment, the JVQ may classify someone as a poly-victim who has experienced five different *acts* of the same *type* of maltreatment. For example, someone who experienced four acts of sexual abuse (e.g. rape by stranger, flashing by a stranger, molested by someone you knew, and being made to do sexual things by a peer) could be classified as a poly-victim by the JVQ but not a multi-type victim by the CCMS because they only experienced sexual abuse. Given these discrepancies, it is important to explore whether one method is more effective and appropriate than the other in examining the short- and long-term effects of poly-

victimization. The present study will examine several methods of measuring poly-victimization which will be discussed in Chapter 3.

The second limitation of the poly-victimization literature is the lack of psychometrically sound assessment instruments to measure various types of maltreatment. Until recently, there was only one standardized childhood maltreatment measure available which assessed for multiple types of victimization (i.e. the Childhood Trauma Questionnaire, CTQ; Bernstein, Fink, Handelsman, Foote, Lovejoy, Wenzel, et al., 1994). Although the CTQ has been largely utilized in the literature and has strong psychometric properties, this measure neglects to assess for exposure to domestic violence and witnessing other types of violence (e.g. war, murder, terrorism); both of which have been found to be related to psychological distress (Higgins & McCabe, 2001b). Over the last ten years, efforts have been made to develop additional comprehensive childhood maltreatment measures, including those mentioned previously by Finkelhor and colleagues (i.e. poly-victimization and the Juvenile Victimization Questionnaire, JVQ; 2005a; 2007a; 2007b) and Higgins and McCabe (i.e. multi-type maltreatment and the Comprehensive Childhood Maltreatment Scale, CCMS; 2000a; 2001b). Both the JVQ and CCMS have been psychometrically tested and utilized in outcome studies to various degrees, and each has several strengths and limitations. However, given that these measures are relatively new more research is needed before one can be confident in their validity and reliability. The present study intends to add to the existing literature by examining the utility of the adult retrospective version of the

JVQ in assessing poly-victimization. The advantages and disadvantages of each of these measures will be discussed in more detail in the next chapter.

A final limitation of the poly-victimization literature involves the methodology of this existing body of research. In a literature review, Higgins and McCabe (2001a) attempted to identify and review all of the studies that had been conducted on multiple types of victimization in order to identify some of the long-term adjustment problems that have been associated with what they term "multi-type maltreatment". A number of methodological problems were identified through this review. First, the majority of the studies reviewed only examined two or at most three types of maltreatment (Higgins & McCabe, 2001a). As mentioned earlier, the most common types of maltreatment studied were sexual and physical abuse, with emotional abuse gaining increased attention. Therefore, the less studied victimization types (e.g. neglect, emotional abuse, and witnessing abuse) have been excluded from the majority of multiple victimization studies. Second, many of the studies reviewed were not "true" multi-type studies, in that they did not assess the effects of two or more types of victimization in combination (Higgins & McCabe, 2001a). Rather, the researchers usually assessed two types of maltreatment (e.g. sexual abuse and physical abuse), separated participants into groups of those who had been sexually abused and those who had been physically abused, and compared the two abuse groups to each other to determine the effects of each type of victimization (e.g. Bailey & Gibbons, 1989; Janus, Burgess, & McCormack, 1987; Wallace, 1990). Therefore the researchers failed to identify individuals who may have experienced both types of abuse as well as investigate effects of experiencing both types

of abuse. Finally, only one study (Higgins & McCabe, 2000a) compared individuals who had experienced multiple types of maltreatment to those individuals who had only experienced one type of maltreatment to determine if those individuals exposed to multiple types of victimization had more psychological distress than individuals who only experienced one type of victimization. Poly-victimization as conceptualized by Finkelhor's group was not assessed in any of the studies reviewed by Higgins and McCabe.

This review by Higgins and McCabe (2001a) identified a few problems with the methodology of the existing poly-victimization victimization literature, including a) neglecting to assess for a broad range of victimizations, b) failure to include an adequate control or reference group when conducting comparisons, and c) failure to assess for overlap in maltreatment exposure among participants. The limitations of the extant research methodology as a whole may be largely attributed to the two previously discussed limitations: lack of comprehensive assessment measures and unclear conceptualization of poly-victimization.

Summation

In contrast to the considerable amount of research that has examined the short- and long-term effects of individual types of child maltreatment, researchers have recently begun to acknowledge that many individuals who experience one type of maltreatment in childhood often have experienced additional types as well. Because of the important nature of this concept and the questions surrounding the utility of the findings of past research on single types of victimizations, research investigating the effects of multiple

types of victimization has begun to accumulate. However, because this research is still in its infancy, there are many limitations to interpreting the current findings. Most notably, the lack of a clear definition of what constitutes poly-victimization makes it difficult to compare the findings across the various studies.

Before researchers can understand the effects of poly-victimization, determine the clinical and research implications, and formulate intervention strategies; standardized and empirically validated assessment measures for poly-victimization with sound psychometric properties need to be available. Additionally, research needs to explore the various methods of measuring poly-victimization and determine if one method is more effective than another in examining the short- and long-term effects of poly-victimization. Further, the child maltreatment research and subsequently the limited poly-victimization literature have thus far demonstrated a trend of focusing primarily on symptoms associated with experiencing maltreatment and largely neglecting the underlying theory behind why these symptoms develop. This study will expand the current poly-victimization literature by examining the effects of poly-victimization within the framework of constructivist self-development theory - specifically focusing on impaired self capacities, and providing an empirical investigation of several proposed methods of measuring poly-victimization using the adult retrospective version of the JVQ.

Research Questions

1. Does the decision to use *acts* of victimization compared to *types* of victimization when assessing poly-victimization make a difference when examining the long-term effects of poly-victimization?
2. Is the experience of being exposed to poly-victimization (i.e. high levels of victimization) related to greater levels of psychological distress compared to individuals who experience lower levels of victimization or no victimization in childhood?
3. What is the relation between a history of poly-victimization and impaired self-capacities as posited by Constructivist Self-Development Theory?

CHAPTER II

REVIEW OF THE LITERATURE

This literature review is divided into several sections. Given that exposure to maltreatment in childhood has been theoretically (McCann & Pearlman, 1990; Pearlman, 1998) and empirically (Beitchman et al., 1992) linked to psychological distress in adulthood, it follows logically that exposure to multiple acts of victimization (i.e. poly-victimization) will have similar effects. Thus, the beginning of this chapter describes constructivist self-development theory (CSDT), summarizes the CSDT and self-capacity literature, and illustrates how CSDT extends to poly-victimization. The next section reviews current methods for assessing a history of childhood victimization, including the current limitations of existing measures and suggestions for developing new comprehensive measures. The third section briefly describes two comprehensive measures of childhood victimization that are currently used in the literature. The strengths and weaknesses of these existing measures are summarized in order to highlight ways in which the Juvenile Victimization Questionnaire (JVQ; Hamby et al., 2005) extends the current measurement options for childhood victimization. The final section provides an overview of the JVQ including: its format, proposed methods for measuring poly-victimization, and a brief summary of the findings of studies that have utilized the

JVQ to examine poly-victimization. This section is followed by a summary and specification of the research questions.

Constructivist Self-Development Theory

Despite having a long history, the psychological research on the effects of childhood maltreatment is plagued by limitations. A primary criticism of this body of literature is the tendency to focus exclusively on symptoms (e.g. depression, anxiety) associated with child abuse while neglecting to provide a theoretical explanation for why or how these symptoms occur. Researchers have only recently begun to take the necessary steps to address this criticism (Myers et al., 2002; McCann & Pearlman, 1990; Pearlman, 1998; Pearlman & Saakvitne, 1995).

As mentioned earlier, Constructivist Self-Development Theory (CSDT; McCann & Pearlman, 1990) is one example of the efforts of researchers to provide a theoretical explanation for why adult survivors of childhood maltreatment experience various psychological and behavioral symptoms. CSDT suggests that the potential impact childhood maltreatment may have on a person is unique to that individual and is determined by several interacting factors including cultural and social context, the individual's frame of reference, psychological needs, ego resources, the memory system, and self-capacities. McCann and Pearlman (1990) declare that self-capacities are "central to understanding the internal experience of trauma" (p. 21). Moreover the strength of one's self-capacities may affect how well the individual is able to tolerate and participate in therapy. Additionally, recent research has found that victims of child maltreatment may be prone to identity confusion, boundary issues, inability to self-soothe, and

overreactions to stressful events; each a possible indicator of poorly developed self-capacities (Briere &Runtz, 1993; Brockman et al., 2006). Since McCann and Pearlman emphasized that self-capacities are the foundation of CSDT and this construct has received increased attention in the recent psychological research, this section and the present study specifically focuses on this aspect of CSDT.

First, I briefly summarize CSDT as it refers to the experience of maltreatment in childhood on the child's developing self-capacities, as described by Pearlman (1998). Next, I review the few research studies that have provided preliminary evidence supporting this hypothesized association between childhood maltreatment and impaired self-capacities and the consequent relation between impaired self-capacities and various psychological sequelae. Finally, I demonstrate the logical extension of CSDT and this limited research from a focus on individual types of maltreatment in isolation to a focus on poly-victimization.

Theoretical Effect of Childhood Maltreatment on Self-Capacities

CSDT posits that, in the context of a psychologically healthy childhood environment, one's self-capacities are able to develop naturally and fully (McCann & Pearlman, 1990). Conversely the development of these inner abilities is seriously disrupted when the child lives in an abusive or neglectful home environment. As described in Chapter One, self capacities are defined as "inner abilities that allow an individual to maintain a consistent, cohesive sense of self" (Pearlman, 1998; p. 9). Pearlman (1998) detailed three self-capacities that when fully developed help the individual to maintain a sense of self and maintain a state of inner balance throughout

both childhood and adulthood. These three self-capacities are, the ability to maintain a sense of connection with others, the ability to experience, tolerate, and integrate strong affect, and the ability to maintain a sense of self as viable, benign, and positive (Pearlman). This section describes the ideal development of these capacities, how experiencing maltreatment in childhood may disrupt this development, and some of the difficulties having underdeveloped self-capacities may cause in adulthood.

Inner Connection

The first self-capacity, referred to as "inner connection" is perhaps the most important because it is the basis from which the other two capacities, affect regulation and self-worth, develop (Brockman, et al., 2006). Citing the attachment literature, Pearlman (1998) stated "the first self-capacity (connection) makes the other two (affect regulation and self-worth) possible through the internalization of loving others in the context of a secure attachment relationship (Bowlby, 1998) or holding environment (Winnicott, 1965)" (p. 9). Ideal development of this self-capacity involves the child using others, particularly caregivers, to gratify his needs, judge his own self-worth, and internalize outside individuals as separate, reliable, means of support (Pearlman, 1998). Given this description, one can infer that having a loving, supportive caregiver is a necessary component to developing a strong sense of self, regulating emotion, and connecting with others. By legal definition child maltreatment, in the simplest of definitions, is abuse perpetrated by a caregiver (DHHS, 2009). Therefore, when a child is maltreated by a caregiver he is denied the opportunity to internalize the loving, protective presence necessary to foster a healthy connection to others. In an abusive or neglectful

home environment, the child may internalize a harsh and mocking presence instead of the loving, nurturing, safe presence that is ideal for normal, healthy development. Thus the child may internalize a feeling of helplessness and vulnerability instead of a loving protection by others. Inadequate development of this self-capacity can lead to an inability to develop healthy relationships with others, difficulty maintaining boundaries in relationships, and an overwhelming sense of aloneness when the individual encounters a crisis because he has not internalized a loving presence of others (Pearlman).

Affect Regulation

The second capacity, affect regulation, logically develops from the child's experience of connecting with her caregivers. In a healthy home environment, the child is able to safely experience multiple affective states and receive feedback from her caregivers on how to distinguish between the pleasurable and painful states. Additionally, the child learns how to tolerate ambivalence and disappointment, to accept responsibility for her mistakes and failures, and to mediate affect with words and imagery (Pearlman, 1998). Experiencing childhood maltreatment can affect the development of this self-capacity in several ways. For one thing, the child's feelings may not be validated by her caregiver. For example, when she cries, no one acknowledges her feelings and identifies what she is experiencing (e.g. "of course you are scared"). Thus, the child may not learn how to name her feelings or identify what "normal" feelings are. Moreover, the child may not learn how to self-soothe when she is upset. Second, if expressions of emotion are met with silence or a punishing response from the caregiver, the child may learn not to show emotion, or may associate displays of emotion with inappropriate

feelings of shame or self-loathing. Finally, if the abuse is chronic or ongoing the child may eventually learn to dissociate or not feel anything at all, which may in turn lead to minimizing her wants and needs for fear of the consequences (Deiter, et al., 2000). Underdevelopment of affect regulation may lead to dissociation, engaging in self-injurious behavior, a tendency toward black and white thinking, an inability to tolerate ambiguity, and the tendency to express emotions through action (e.g. becoming violent, blaming others for one's own mistakes; Pearlman, 1998).

Self-Worth

The third capacity is a sense of self-worth. Normal development of this capacity involves the individual discovering that he is a person of value, worthy of being recognized and encouraged by others, and worthy of existing (Pearlman, 1998). When a child is neglected and ignored by his primary caregivers he may begin to experience himself as not existing or not worthy of existence. Further, when a child experiences abuse by a caregiver he may internalize the abuse as being particularly reserved for him. In other words, the child may begin to associate the abuse he experiences with his worth as a human being (McCann & Pearlman, 1990). In keeping with the just world hypothesis (Lerner & Miller, 1978), individuals need to believe that in a just world people get what they deserve and deserve what they get. Interpreted in a more simple sense by children: good things happen to good people and bad things happen to bad people. Therefore, the child may begin to believe that he deserves the bad things that are happening to him because he is a bad person. Unhealthy development of the self-worth

self-capacity can lead to many negative outcomes including, self-blame, self-loathing, low self-esteem, self-doubt, and self-injury (Deiter et al., 2000; Pearlman).

This section briefly outlined the three self-capacities that are central to CSDT, described both healthy and unhealthy development of each capacity, and provided examples of how maltreatment in childhood may affect the development of these self-capacities. The next section summarizes empirical research in this area.

Empirical Evidence Supporting Relations between Childhood Maltreatment, Self-Capacities and Psychological Sequelae

As research on self-capacities is relatively new, the number of available studies on this construct is small. Briere and Rickards (2007) suggested that research is sparse in this area because a) self-capacities are complex constructs, b) psychodynamic clinicians most interested in these construct tend to focus more on clinical practice than empirical research, and c) there are very few standardized and valid psychological measures of self-capacities available to researchers. Currently the research appears to fall into one of two similar, overlapping camps depending upon the psychological measure used to assess self-capacities. The first camp utilizes the Inner Experience Questionnaire (IEQ; Deiter & Pearlman, 1999) as a measure of self-capacities while the second uses the Inventory of Altered Self-Capacities (IASC; Briere, 2000). The IEQ specifically follows CSDT and assesses the three self-capacities of affect tolerance, self-worth, and inner connection, described previously. Expanding on the conceptualization of self-capacities as described by McCann and Pearlman (1990)'s Constructivist Self-Development Theory, Briere and Runtz (2002) stated:

> "This construct reflects the notion that successful interpersonal functioning includes the extent to which the individual is able to accomplish three tasks: (a) maintain a sense of personal identity and self-awareness that is relatively stable across affects, situations, and interactions with other people; (b) tolerate and control strong (especially negative emotions) without resorting to avoidance strategies such as dissociation, substance abuse, or external tension-reducing activities; and (c) form and maintain meaningful relationships with other people that are not disturbed by inappropriate projections, inordinate fear of abandonment, or activities that intentionally or inadvertently challenge or subvert normal self-other connections" (p. 230).

Utilizing this expanded conceptualization of self-capacities, Briere (2000) developed an alternative psychological measure to assess this construct – the IASC. This psychological measure addresses seven types of disturbances in self-capacities: Interpersonal Conflicts, Idealization-Disillusionment, Abandonment Concerns, Identity Impairment (two subscales, Self-Awareness and Identity Diffusion), Susceptibility to Influence, Affect Dysregulation (two subscales, Affect Skills Deficits and Affect Instability), and Tension Reduction Activities. Each of the research studies summarized in this section utilizes one of these two measures of self-capacities.

Inner Experience Questionnaire

In developing the Inner Experiences Questionnaire (IEQ), Brock and colleagues (2006) utilized archival data from four unpublished studies to examine its psychometric properties and the relations among childhood maltreatment, self-capacities, and trauma symptoms. Data from a total of 877 participants were used in the analyses. The sample included 191 participants from outpatient psychotherapy clinics (98 from Study 1 and 93 from Study 2), 132 participants from partial hospitalization programs (Study 2), 434

young adults who self-identified as lesbian, gay, bisexual, or questioning their sexual orientation (Study 3), and 120 heterosexual young adults (Study 4).

Although the IEQ was originally designed to consist of 24 items falling into one of three self-capacity subscales (i.e. affect tolerance, self-worth, and inner connection); the analyses showed high intercorrelations (.66 or higher) between scores on the three subscales. Therefore, Brock et al. utilized a single overall mean score based on all 24 items on the IEQ as an indicator of disruption in self-capacities. Each item of the IEQ is score on a 6-point Likert scale ranging from 1 (disagree strongly) to 6 (agree strongly). Therefore, the possible overall IEQ mean score could range from 1 to 6, with higher scores indicating greater impairment. Examining differences in reported self-capacities across sample participants by group (i.e. partial hospitalization, outpatients, LGB youth, and heterosexual youth), an analysis of variance indicated significant differences among the four groups ($F(3, 873) = 131.7$, $p < .001$). Further analyses with Tukey's Honestly Significant Difference (HSD) test showed participants from the partial hospitalization programs reported significantly more impaired self-capacities (M=3.54, SD=.93) than did the other three groups (outpatients M= 2.89, SD=.87; LGB youth M= 2.24, SD=.58; heterosexual youth M= 2.15, SD=.59) All Tukey HSD analyses were significant at the $p < .05$ level. Additionally, the outpatient psychotherapy participants reported higher IEQ scores (M=2.89, SD=.87) than did the two non-clinical participant groups. The LGB (M=2.24, SD=.58) and heterosexual groups (M=2.15, SD=.59) did not differ significantly from each other in terms of their self-capacities. These initial results indicated that without considering any additional variables (e.g. history of childhood maltreatment),

clinical samples seemed to report greater impaired self-capacities than did non-clinical samples.

Before discussing the relation between child maltreatment and impaired self-capacities, it is important to note that a history of childhood maltreatment was assessed differently in each of the four studies that Brock and colleagues (2006) utilized. Specifically, one study did not assess for childhood maltreatment at all, two studies collected continuous child maltreatment data (e.g. indicating degree of severity of abuse) and one study collected dichotomous child maltreatment data (e.g. abuse vs. no abuse). The three studies that collected data on a history of childhood maltreatment also differed in which types of maltreatment (e.g. sexual, physical, emotional abuse, neglect) were assessed. For example, study one was the most comprehensive in that five types of abuse were assessed – physical abuse, sexual abuse, emotional abuse, physical neglect and emotional neglect. Based on how frequently the abuse occurred participants were given a rating of none, low, moderate, or severe for each abuse type. Data were then provided for the percentage of participants (N=98) that reported experiencing each type of abuse (i.e. sexual abuse – 59%; physical abuse – 55%; emotional abuse – 81%; emotional neglect – 88%; and physical neglect – 60%), as well as the percentage of participants who reported no abuse (8%). Study two utilized a childhood victimization measure that assessed for three types of maltreatment – sexual abuse, physical abuse, and physical neglect. However, the percentage of participants who reported each type of maltreatment was not reported. Instead participants (N=219) were collapsed across abuse types into one of two groups: those participants reporting a history of childhood maltreatment (73.5%) and

those participants who reported no maltreatment (26.5%). Finally, the third study utilized a child maltreatment measure that assessed maltreatment on a continuous scale, with higher scores indicating more severe abuse. The overview of this study did not specify which specific abuse types were assessed on the measure, however Brock et al. (2006) did indicate that the measure was designed to yield three subscales scores: childhood sexual abuse, punishment, and neglect/negative home environment. For the purpose of their study, Brock and colleagues were primarily interested in the total score of this measure. No percentage data were reported for a history of childhood maltreatment with this sample of LGB youth. The fourth study (i.e. heterosexual youth) did not include a measure of childhood maltreatment. Perhaps the most troubling aspect of the descriptive information provided above, is the fact that none of these studies specifically identified the percentage of participants that reported exposure to multiple types of abuse. As can be observed most clearly by the percentages reported in study one (i.e. the percentages add up to 343%), it is obvious that many participants reported multiple types of abuse, however the researchers failed to address this issue. As mentioned previously, this lack of attention to the concept of poly-victimization is a major limitation of the child maltreatment literature.

Because of these differences in assessing a history of childhood maltreatment, Brock et al. conducted correlational analyses with the continuous child maltreatment data and performed mean difference tests with the dichotomous child maltreatment data to examine the relation between childhood maltreatment and self-capacities. Correlational data indicated that more severe childhood maltreatment was significantly associated with

more disrupted self-capacities. This pattern of results was observed across each of the different types of childhood maltreatment, although some abuse types correlated more strongly with impaired self-capacities (e.g. emotional and physical neglect and physical abuse) than did others (e.g. sexual abuse). Specifically, correlations between childhood maltreatment and impaired self-capacities ranged from .15 (sexual abuse) to .38 (neglect/negative home environment). Analysis of the dichotomous child maltreatment data compared mean scores on the IEQ for those participants who reported experiencing child maltreatment as compared to those participants who did not report experiencing child maltreatment. For both partial hospitalization participants (t [105] = -4.06, p <.001) and outpatient therapy participants (t [87] = -2.67, p <.001), those individuals reporting a history of child maltreatment evidenced significantly more impaired self-capacities than did those participants without a history of child maltreatment.

Next, Brock's group (2006) examined the relation between self-capacities and trauma symptoms. First, correlational analyses were performed for each sample examining the relation between scores on the IEQ and scores on two trauma symptom measures (i.e. Trauma Symptom Inventory, TSI; Briere, 1995 and Trauma Symptom Checklist-40, TSC-40; Briere & Runtz, 1989). Across all four samples, correlational analyses showed that higher scores on the IEQ (more impaired self-capacities) were associated with higher levels of trauma symptoms as measured by the TSI (e.g. intrusive experiences, dissociation, defensive avoidance, anxious arousal, anger/irritability, depression, sexual concerns, dysfunctional sexual behavior, impaired self-reference, and tension reduction behavior) and the TSC-40 (e.g. anxiety, depression, dissociation, sleep

disturbance, and sexual problems). All correlations were statistically significant and ranged from .44 to .69.

Finally, Brock et al., performed a median split to separate each of the four samples into high (more disrupted self-capacities) and low IEQ groups (less impaired self-capacities). T-tests were conducted to determine whether participants who reported more disrupted self-capacities would demonstrate higher levels of trauma symptoms compared to participants who reported less impaired self-capacities. Across each sample, analyses supported this hypothesis. Specifically, LGB youth with more impaired self-capacities had higher total scores on the TSC-40 (M=46.56) than did LGB youth with less impaired self-capacities (M=28.45). Similar patterns of results were observed with the heterosexual youth in that the group with more impaired self-capacities scored higher on average on the TSC-40 (M=35.54) than did the heterosexual youth with less impaired self-capacities (M=23.32). Using the TSI to measure trauma symptoms, similar results were found. Specifically, outpatients with more impaired self-capacities scored higher, on average, on the subscales of the TSI (Trauma M=57.99; Dysphoria M= 46.49; Self M=45.01) than did outpatients with less impaired self-capacities (Trauma M=34.55; Dysphoria M=30.74; Self M=31.26). Finally, a similar pattern of results was also found using the TSI with the partial hospitalization sample. Individuals in the partial hospitalization group with more impaired self-capacities had higher scores on the TSI subscales (Trauma M=75.52; Dysphoria M=58.33; Self M=73.45) than did partial hospitalization participants with less impaired self-capacities (Trauma M=51.11; Dysphoria M=41.98; Self M=52.11). Although specific t-values were not reported,

Brock et al. indicated that these analyses were all significant at the .001 level. Brock's group (2006) also applied a Bonferroni correction to this group of t-tests in order to "decrease the capitalization on chance caused by conducting a large number of tests" (p. 117). Even with this correction, the researchers reported that all analyses remained statistically significant.

In summary, this study by Brock and colleagues provided initial evidence in support of the possible effect child maltreatment may have on the development of self-capacities and the consequential role self-capacities may play in the development of trauma symptoms later in life, as suggested by CSDT. Perhaps even more importantly, evidence supporting CSDT's theoretical expectation between childhood maltreatment, self-capacities, and trauma symptoms was observed across both clinical and non-clinical samples. Although this study utilized data from multiple studies and had a decent total sample size of 877 participants, it is important to consider that the majority of the analyses were conducted at the group level with smaller sample sizes (ranging from 120 to 434 participants). Moreover, the researchers failed to report effect sizes or specific t-values for the majority of their analyses which leaves lingering questions about the clinical significance of the findings. Finally, different measures and therefore different methods were used to assess for a history of childhood maltreatment which prevented Brock's group from combining the samples when analyzing the effects of childhood maltreatment on the development of self-capacities and trauma symptoms. Additional research which examines these effects with a larger sample size and a consistent measure

of childhood maltreatment is necessary to further support the proposed relations between child maltreatment, self-capacities, and trauma symptoms.

In addition to the relation between impaired self-capacities and the development of trauma symptoms, the IEQ has also been utilized to examine the relation between self-capacities and maladaptive coping behaviors that survivors of child abuse sometimes engage in, specifically self-harming behaviors. In an earlier study, Deiter and colleagues (2000) examined the prevalence of self-injurious behaviors and exposure to childhood abuse (i.e. sexual and physical abuse) in a sample of 223 adults recruited from a partial-hospitalization treatment center and an outpatient psychotherapy clinic. The researchers also explored the relations between experiencing childhood abuse, engaging in self-injurious behavior, and disruption of self-capacities. Deiter and colleagues found that 58% of their sample reported a history of direct self-injury (i.e. cutting, burning, punching, biting, scratching, and head-banging) and 69% self-reported experiencing child abuse, either sexual abuse, physical abuse, or some combination of both types of abuse. The researchers further reported that 47% of their sample reported both a history of child abuse and engaging in self-injurious behavior. Unfortunately, the researchers did not specify what percentage of participants experienced each type of abuse or both types, instead they dichotomized the participants into two groups: child abuse and no child abuse.

Using the IEQ, Deiter et al. (2000) obtained a full scale score to determine disruption in the three CSDT self-capacities with higher scores indicating greater impairment in self-capacities. The researchers analyzed the data using a 2 (direct self-

injury vs. no direct self-injury) by 2 (childhood abuse vs. no childhood abuse) analysis of variance. Main effects were observed for both direct self-injury and a history of childhood abuse. More specifically, when separating the participants into two self-injury groups, the researchers found that participants who reported engaging in self-injury reported greater impairment in self-capacities than those who did not self-injure (F [1,226) = 28.83, p <.001) . Analyses also showed that individuals who reported experiencing child abuse reported greater disruption in self-capacities compared to participants who did not report experiencing child abuse (F [1,226) = 10.921, p <.001). These findings provide preliminary evidence in support of CSDT's supposition that experiencing maltreatment in childhood disrupts the development of the child's self-capacities. Finally, a significant interaction effect between direct self-injury and childhood abuse was observed with the greatest level of impairment observed in participants who reported experiencing child abuse and engaging in self-injurious behavior (F [1,226) = 4.055, p <.045) . Thus, these individuals reported the greatest difficulty in tolerating strong affect, maintaining a sense of worth, and maintaining a sense of connection with others.

Inventory of Altered Self-Capacities

The second camp of self-capacities research involves the work by John Briere (2000) and the development of his measure the Inventory for Altered Self-Capacities (IASC). Although this measure has been available for several years, very little empirical research has utilized the IASC in examining the effects of childhood maltreatment. A review of the literature found only two such studies (Briere & Rickards, 2007; Richmond

et al, 2009). The first study is discussed next, however because the second study utilized the JVQ those results will be discussed in a later section of this chapter. This paucity of research further demonstrates the lack of attention that has been given to the development of self-capacities in survivors of childhood victimization.

Citing research (e.g. Alexander, Anderson, Brand, Schaeffer, Grelling, & Krest, 1998; Elliott, 1994; Herman & van der Kolk, 1987; Westen, Ludolph, Block, Wixom, & Wiss, 1990; Wilkenson-Ryan & Westen, 2000) that has produced sufficient evidence for an association between experiencing childhood maltreatment and self-capacity problems, symptoms of borderline personality disorder, and disturbed object relations, Briere and Rickards (2007) investigated specific characteristics of adverse life experiences that contributed to these symptoms. Specifically, the researchers examined whether interpersonal victimization (i.e., child abuse or adult assault) had a stronger relation to impaired self-capacities than noninterpersonal trauma (i.e., accident or natural disaster). Further, because attachment, psychodynamic, and CSDT theories suggest that early parent-child relationships affect the development of self-capacities, Briere and Rickards explored whether childhood or adulthood trauma was more associated with impaired self-capacities. Finally, the researchers hypothesized that emotional abuse in childhood and a lack of parental emotional support would relate more strongly to impaired self-capacities than would childhood sexual or physical abuse.

Briere and Rickards (2007) recruited a random sample of adults from the general population using automobile registration and telephone records. Of the 5,415 potential participants, 417 (response rate of 7.7%) adults completed and returned both measures

necessary for inclusion in this study, the Inventory of Altered Self-capacities (IASC) and the Traumatic Events Survey (TES; Elliott, 1992). Based on the TES, participants reported interpersonal victimization experiences of childhood sexual or physical abuse, sexual or physical assault in adulthood, as well as maternal and paternal emotional abuse and maternal and paternal emotional support. The noninterpersonal trauma experiences were exposure to a natural disaster or serious accident. Participants were included as having noninterpersonal trauma if they reported one or both experiences. The researchers indicated that approximately 29% of their sample reported experiencing childhood physical abuse, 16.8% reported childhood sexual abuse, 28% reported physical assault in adulthood and 5.8% reported sexual assault in adulthood. Approximately 65% of the sample reported experiencing a noninterpersonal trauma. Unfortunately, consistent with the general limitations of the child maltreatment literature, the researchers did not indicate whether these categories were mutually exclusive or what percentage of their sample had experienced multiple traumas. Interestingly, participants were not categorized into groups for emotional abuse, as they were for the other types of abuse. For childhood physical and sexual abuse, participants were categorized dichotomously with abuse being present or not. However, emotional abuse was assessed using a series of four scales as defined by the TES. Therefore participants were not dichotomously categorized for emotional abuse. Instead participants received a continuous score on four different scales: emotional abuse by mother figure, emotional abuse by father figure, maternal emotional support, and paternal emotional support. Scoring for these scales is as follows: on the two emotional abuse scales higher scores indicate more severe abuse

and on the two emotional support scales lower scores indicate less emotional support. Because of this difference in scoring, there were no data reported by Briere and Rickards to indicate the percentage of participants that had or had not experienced emotional abuse.

Briere and Rickards (2007) performed multiple regression analyses, one for each subscale of the IASC. For each regression analysis the respective subscale of the IASC was entered as the criterion variable, and demographics (e.g. age and gender), the six child maltreatment variables (i.e. childhood sexual abuse, childhood physical abuse, maternal emotional abuse, paternal emotional abuse, maternal emotional support, and paternal emotional support) , two adult interpersonal trauma variables (i.e. adult physical assault and adult sexual assault), and noninterpersonal trauma variables (i.e. exposure to a natural disaster and/or serious accident) were entered as the predictor variables in step one. In step two, the researchers entered all the 2-way interactions between participant gender and the trauma variables (child, adult, and non-interpersonal traumas). Results showed that each of the IASC subscales were predicted by some combination of demographics, childhood maltreatment, and assault in adulthood at step one. No interaction between gender and any of the trauma variables was significant at step 2.

Looking specifically at the statistically significant beta weights produced by these multiple regression analyses, Briere and Rickards reported that maternal emotional abuse was associated with impairment on all seven self-capacity subscales (i.e. Interpersonal Conflicts, Idealization-Disillusionment, Abandonment Concerns, Identity Impairment - Self-Awareness, Identity Impairment – Identity Diffusion, Susceptibility to Influence,

Affect Dysregulation – Affect Skills Deficits, Affect Dysregulation – Affect Instability, and Tension Reduction Activities) with βs ranging from .21 to .31. Childhood sexual abuse was associated with five of the seven subscales (all but Interpersonal Conflicts and Identity Impairment) with statistically significant βs ranging from .11 to .17. Low paternal support was associated with Interpersonal Conflicts (β = -.15), Abandonment Concerns (β = -.16), and Tension Reduction Activities (β = -.15). Adult physical assault was associated with Tension Reduction Activities (β = .10). Finally, childhood physical abuse, paternal emotional abuse, low maternal emotional support, adult sexual assault, and exposure to noninterpersonal trauma were not statistically found to be associated with any of the self-capacity subscales. Given this pattern of results, Briere and Rickards concluded that impaired self-capacities are particularly associated with adverse interpersonal events (i.e. sexual abuse, emotional abuse, and emotional nonsupport) and are largely restricted to events occurring in childhood as opposed to adulthood.

In summary, Briere and Rickards (2007) reported that the primary predictors of impaired self-capacities were childhood emotional abuse, emotional nonsupport in childhood, and childhood sexual abuse. One particularly interesting finding was the differential effects of emotional abuse and emotional non-support by each parent. Specifically, although emotional abuse by both parents was reported, only emotional abuse by the mother was significantly related to impairment in the self-capacities subscales. This finding seems logical when considered in the context of constructivist self development theory. CSDT proposes that self-capacities are developed through early relationships with caregivers. Moreover, the attachment literature suggests that the

mother figure is the primary nurturer and caregiver particularly for young children (McCann & Pearlman, 1990). Putting these two pieces together, it makes sense that emotional abuse by the child's primary caretaker (i.e., mother) may have more negative effects on her development than emotional abuse by the secondary caregiver (i.e., father). Additional research examining these specific effects would be beneficial. That being said, given that effect sizes were not reported, one should still be cautious when interpreting these statistically significant findings. Finally, in discussing the different findings across abuse types (e.g. physical abuse in childhood was not significantly related to any of the self-capacity subscales; whereas maternal emotional abuse was related to all of the subscales) Briere and Rickards (2007) suggested that "it may be inappropriate to generalize that child maltreatment, per se, is related to adult self-capacity disturbance" (p. 501). While the researchers did include multiple types of abuse in their regression analyses, they failed to address the possibility that the individual participants may have experienced multiple victimizations. As research moves forward in the area of child maltreatment and the development of self-capacities, more work is needed to further differentiate the effects of abuse types and the potential impact of poly-victimization.

Based on the findings of this limited body of research, several tentative inferences can be made. First, it appears that experiencing maltreatment in childhood is related to greater impairment in self-capacities as measured by both the IEQ and IASC (Briere & Rickards, 2007; Brock et al., 2006; Deiter et al., 2007). Moreover this relation was consistently observed with the IEQ in both clinical (Brock et al..; Deiter et al.) and non-clinical samples (Brock et al.). The IASC has thus far only been utilized with non-

clinical samples. It is noteworthy that these significant positive relations were also observed across several different types of child maltreatment (i.e. sexual abuse, physical abuse, emotional neglect, physical neglect, and emotional abuse), even though the strength of the relations varied by type of abuse. For example, Brock's group (2006) found a stronger correlation between emotional neglect and impaired self-capacities (r = .35) compared to the correlation between sexual abuse and self-capacities (r = .21). Additionally, in the studies that utilized a continuous measure of severity of abuse, greater severity of abuse was associated with greater impairment in self-capacities. Although, researchers in these previous studies did not specifically examine poly-victimization, these initial results may be interpreted to suggest that experiencing more acts of victimization may lead to increased severity of abuse which may be related to greater impairment in self-capacities.

Second, disruption in self-capacities is associated with greater psychological distress. Specifically, relations were observed between impairment in self-capacities and trauma symptoms such as anxiety, dissociation, depression, impaired self-reference, anger/irritability, sexual concerns, and engaging in self-injurious behavior (Briere & Rickards, 2007; Brock et al., 2006; Deiter et al., 2007). It is important to note that significant correlations between impaired self-capacities and trauma symptoms were observed in both clinical and non-clinical samples. These findings provide strong theoretical support for CSDT. By recruiting adequate sample sizes comprised of both clinical and non-clinical participants, assessing a variety of victimization experiences, and reporting similar significant findings for the relation between childhood

maltreatment, disrupted self-capacities and trauma symptoms, this limited body of research is a good start to supporting constructivist self development theory's explanation for the development of negative psychological sequelae in adult survivors of childhood maltreatment.

Despite the strengths of these few studies, it is also important to note the limitations. Most significant, is the researchers' choice of questionnaires used to assess a history of child maltreatment and the lack of attention paid to participants who may have experienced multiple acts of maltreatment. The three studies providing archival data for Brock and colleagues (2006) that assessed a history of childhood maltreatment, each used different assessment measures making it difficult to compare the results across samples. For example, sexual abuse as measured by the Childhood Trauma Questionnaire (CTQ; Bernstein et al., 1994) had a slightly higher correlation with disrupted self-capacities (r = .21) than did sexual abuse (r = .15) when measured with the Child Abuse and Trauma Scale (CAT; Saunders & Becker-Lausen, 1995). It is possible that these measures assessed sexual abuse differently, making it difficult to compare the findings. Briere and Rickards (2007) utilized a measure that only assessed for sexual, physical, and emotional abuse and did not assess for experiences of physical neglect. This may be problematic because not only is neglect considered the most frequently experienced type of maltreatment (DHHS, 2009), but Brock's group observed the highest correlation between physical neglect and impaired self-capacities. As will be discussed in the latter half of this chapter, the limitations discussed here are representative of the limitations of the

child maltreatment literature as a whole. The next section further highlights the importance of beginning to incorporate poly-victimization into future research studies.

Extending CSDT to Poly-Victimization

Given the recent literature, it is becoming increasingly clear that individuals who have been subjected to one form of childhood maltreatment, such as childhood sexual abuse, may also have been the victims of additional forms of maltreatment (e.g. physical abuse, neglect, psychological abuse, peer and sibling abuse, etc.). Today, childhood victimization is becoming increasingly thought of as a *condition* as opposed to an *event* (Finkelhor et al., 2007b). This shift has occurred as the result of increasing literature documenting the high rates of on-going victimization, multiple victimizations, and re-victimization (Finkelhor, Ormrod, et al., 2005a; Finkelhor, Ormrod, Turner, & Hamby, 2005b; Finkelhor et al., 2007a; 2007b; Finkelhor, Ormrod, & Turner, 2007c; Higgins & McCabe, 2000a; 2000b; 2001b; 2003; Higgins, McCabe, & Ricciardelli, 2003). Therefore, when theorizing about why adult survivors of childhood abuse experience so much psychological distress it is important to consider the impact of poly-victimization in addition to single acts of maltreatment.

The previous section provided empirical evidence supporting CSDT's position that maltreatment in childhood is related to disruption in self-capacities which in turn is related to psychological distress in adulthood. Although the studies summarized above assessed for a variety of childhood victimization experiences (e.g. neglect, physical abuse, sexual abuse, emotional abuse) none of the studies assessed for the experience of poly-victimization. In my review of the CSDT and self-capacity literature, I have not

found any studies that have incorporated the concept of poly-victimization. In thinking about the impact of childhood maltreatment from the CSDT perspective, if experiencing one type of child maltreatment negatively impacts the development of self-capacities, it follows logically that experiencing multiple types of victimizations may have an even greater negative impact. For example, Brock et al. (2006) found moderately strong correlations between impaired self-capacities and physical abuse (r = .33) and emotional neglect (r = .35). Because the child maltreatment categories that the researchers used were not mutually exclusive, it is possible that some of the sample may have experienced both physical abuse and emotional neglect. As such, it is possible that the correlation between impaired self-capacities and a poly-victimization variable may evidence an even stronger relation.

Consider this same example in an applied manner. A child who is told by her father that she is stupid, worthless, ugly, and so on (i.e. emotionally abused) may suffer disruptions in her self-worth self-capacity and eventually develop low self-esteem. A child who is beaten by his mother every time he cries or shows that he is scared of something (i.e. physical abuse) may be unable to adequately develop affect regulation and eventually learns not to express any type of emotion at all. A child who experiences both of these acts of victimization by different perpetrators (mother emotionally abuses her and father physically abuses her) may experience disruption in multiple self-capacities and to an even greater extent than those children who only experienced one act of victimization. Therefore, it is reasonable to suggest that an individual who experiences both emotional neglect and physical abuse during childhood will display

greater impairment in self-capacities than individuals who only experience physical abuse. However, this remains an empirical question.

Another important aspect of poly-victimization to consider is the high probability that the child has been abused by multiple perpetrators (e.g. parent, peer, bus driver) in multiple settings (e.g. home, school, friend's house). When thinking about the impact of maltreatment on the development of self-capacities it makes sense that children who experience poly-victimization may have more inadequately developed self-capacities because their abuse is generalized to and associated with multiple people and places. For instance, a child who is emotionally abused at home by her mother, frequently bullied at schools by her peers, and then sexually abused and emotionally abused by a friend's father may have greater disruption in her self-worth capacity compared to a child who is sexually abused once by a neighbor. In the instance of the first child, she has multiple examples of different people in different settings abusing her and thus it may become more difficult for her to understand why this abuse is happening to her. She may come to internalize a poor self-concept and low self-worth because she is the common factor in each situation, therefore something must be wrong with her for bad things to keep happening. In the case of the second child who only experiences one act of victimization, he may have multiple sources of support (e.g. friends, parents) who counteract the negative abuse experience. Thus despite the traumatic nature of the abuse, this child is able to more fully develop his self-capacities given a relatively healthy home environment. Unfortunately, it is logical to hypothesize that children who experience

poly-victimization may have less supportive resources to rely on than do children who only experience one act of victimization.

There are many possible explanations for why experiencing multiple acts of victimization in childhood may cause greater disruption in self-capacities and thus greater psychological distress in adulthood. This section has provided but a few examples to help illustrate this proposition. CSDT provides an appropriate framework from which to conceptualize the possible long-term effects of poly-victimization, however no research has currently examined these relations empirically. The present study aims to address this significant oversight in the literature as well as address some of the methodological limitations mentioned previously. One of the key components to conducting a well-designed research study is the use of psychometrically sound assessment tools. Extensive research has focused on developing well-constructed outcome measures to adequately assess the effects of child maltreatment (e.g. Trauma Symptom Inventory, Briere, 1995; Trauma Symptom Checklist-40, Briere & Runtz, 1989), however considerably less effort has been focused on developing adequate measures to assess the experience of childhood maltreatment (Hulme, 2004). The next section provides a short overview of the methodologies commonly used in the child maltreatment literature and briefly describes several of the independent measures currently available to retrospectively assess an individual's childhood victimization history.

Assessing a History of Childhood Victimization

Several methods have been utilized in the past to retrospectively assess an individual's history of childhood victimization including structured or semi-structured

interviews, chart review, and self-report questionnaires (Bernstein et al., 1994). Although each of these methods has advantages and disadvantages; several universal limitations dominate the child maltreatment literature regardless of the assessment method chosen. First, publications advocating the use of these various methods rarely provide significant, if any, evidence regarding the reliability and validity of these measures (Hulme, 2004). Second, the majority of instruments that have been developed do not examine the full range of childhood victimizations one can experience; often focusing on only a few types of abuse (most commonly sexual and physical abuse) (Higgins & McCabe, 2001a).

Some researchers have attempted to overcome these limitations by developing structured interviews (e.g., Childhood Trauma Interview; Fink, Bernstein, Foote, Lovejoy, Ruggierio, & Handelsman, 1993) that assess a wider range of victimizations; however these interviews can be very time-consuming and taxing to the participants, and often require a significant amount of training and experience to administer. Chart reviews afford researchers the least amount of methodological control because they are at the mercy of the information present in the charts. Chart reviews are most often used in studies investigating sexual abuse, as this is the type of abuse most often documented in medical charts. Because the self-report questionnaire is the most convenient, time-efficient, cost-effective, and perhaps confidential mode of inquiring about a history of childhood victimization, this mode dominates the child maltreatment literature. Several recommendations for developing comprehensive, methodologically sound self-report instruments for assessing child maltreatment will be discussed next.

Recommendations for Instrument Development

There are many components to consider when designing a strong measure of childhood victimization. Hamby and Finkelhor (2000) outlined twenty different recommendations for developing child maltreatment instruments that are comprehensive, methodologically sound, and relevant for use across a variety of disciplines. Although in-depth discussion of all twenty recommendations is beyond the purview of this chapter, a brief discussion of the suggestions most relevant to the JVQ is warranted.

The first recommendation addresses the limitation of using less comprehensive measures as was discussed in the previous chapter. Questionnaires need to assess non-violent victimization (e.g. property crimes such as theft and vandalism; Kindermann, Lynch, & Carter, 1997; Wells & Rankin, 1995; Wirtz & Harrell, 1987), as well as the more violent victimizations of sexual and physical abuse. Moreover, these measures should include incidents of non-contact sexual abuse (e.g. flashing, sexual harassment) as well as victimizations that do not involve force or assault (Finkelhor & Ormrod, 1999).

Second, assessment measures should utilize definitions of victimization employed by professional agencies designed to track the occurrence of victimizations (U.S. Department of Justice, 1994). An instrument that uses standardized victimization categories could increase the applicability and generalizability of the results observed in studies using the measure. For example, child protection agencies are an important resource that collect large amounts of data regarding the occurrence of various juvenile victimizations. Given this, it would be beneficial if the data produced in research studies could be designed to be comparable to the data obtained by these agencies. Hamby and

Finkelhor specifically mention the problem with research on childhood sexual abuse. They suggest that many research studies are only concerned with violent sex offenses, and as a result largely exclude many of the offenses that child protection agencies consider child abuse (e.g. exposure to pornography). Additionally, many measures of childhood victimization fail to specify who the perpetrator of the victimization was when assessing for abuse. This lack of specification makes it difficult to discern whether the victimization qualifies as physical abuse by a caregiver or physical assault by a peer as defined by child protection agencies.

A third recommendation is to increase the assessment of victimizations by a family member or other individual who knows the victim. Often, maltreatment questionnaires focus more on abuse perpetrated by strangers (e.g. sexual abuse by a stranger) since this is considered more of a "crime" compared to victimization such as emotional abuse by a sibling. Past research has demonstrated that respondents often will not report victimization by a known perpetrator unless specifically asked to do so (Kindermann et al., 1997).

Speaking more specifically about the general format of a self-report questionnaire, Hamby and Finkelhor (2000) suggest using simple grammar, vocabulary, and syntax when wording the individual items. This may increase the accuracy of responses provided by individuals of lower socioeconomic status, or individuals who learn English as a second language. Perhaps an even more important recommendation is to use behaviorally specific questions rather than use more global categories of abuse or abuse specific questions. For example, instead of asking "Before the age of 17 were you

ever sexually assaulted" (abuse-specific) an item might be worded "When you were a child, did a grown-up you knew touch your private parts when you didn't want them to?" (behavior-specific). Research has shown that asking questions about specific behaviors increases the accuracy and consistency of responses provided and also helps cue respondents to what experiences are being asked about (Koss, 1996).

Finally, research has also shown that participants are sometimes more likely to answer affirmatively to behavior specific questions about abuse, as opposed to endorsing stigma-laden abuse specific questions (Koss, 1996). For example, Richmond, Elliott, Pierce, and Aspelmeier (unpublished Master's thesis, 2006) found that only 9.6 % of their sample endorsed the label of sexual abuse, responding affirmatively to the question, "Prior to the age of 16, were you ever sexually abused," whereas 46% were classified as having experienced some form of sexual abuse by endorsing one of the six behaviorally-specific questions (e.g., Did someone ever make you do something sexual that you did not want to do?). Applying at least some of these recommendations when developing a measure of childhood victimization may greatly advance the study of poly-victimization.

Existing Measures of Poly-Victimization

This section provides an overview of three measures that assess for multiple types of maltreatment. These measures include the most commonly used questionnaire in the child maltreatment literature (i.e. Childhood Trauma Questionnaire, Bernstein & Fink, 1998) and a newer measure (Comprehensive Child Maltreatment Scale, Higgins & McCabe, 2001b) that has been utilized to a far lesser extent in the current literature. The newest measure of the three is the Juvenile Victimization Questionnaire which is a recent

attempt to assess poly-victimization. In reviewing these measures I will a) demonstrate the strides the child maltreatment literature has made in assessing for poly-victimization and b) highlight the lingering gaps in assessment that the JVQ may fill.

Childhood Trauma Questionnaire

Perhaps the oldest and therefore most commonly used measure is the Childhood Trauma Questionnaire (CTQ) developed by Bernstein and Fink (1998) as a means to briefly assess a broad range of traumatic experiences one may have in childhood. The researchers conducted a comprehensive review of the child abuse and neglect literature and composed the initial items of the CTQ based on this review. Seventy items were initially constructed to assess victimization in one of five areas: physical abuse, sexual abuse, emotional abuse, physical neglect, and emotional neglect. Each item begins with the phrase "When I was growing up…" and the participant reports the frequency with which the experience occurred on a five point Likert scale (ranging from "Never True" to "Very Often True"). This measure takes approximately 10-15 minutes to administer and is intended for use with adult and adolescent clinical samples (Bernstein et al., 1994).

Since their development, both the CTQ and CTQ-Short Form (Bernstein, Stein, Newcomb, Walker, Pogge, Ahluvalia, et al., 2003) have been used fairly often in psychological research examining the effects of the different types of childhood victimization. However, consistent with the limitations of the child maltreatment literature discussed in Chapter 1, many of the studies utilizing the CTQ have only been interested in one or at most three types of victimization and thus have only utilized select subscales of the CTQ (Fox & Gilbert, 1994; Gauthier, Stollack, Messe, & Aronoff, 1996;

Leserman, Li, Drossman, & Hu, 1998; Mullen, Martin, Anderson, Romans, & Herbison, 1994; Nash, Hulsey, Sexton, Harralson, & Lambert, 1993; Varia, Abidin, & Dass, 1996). Relatively fewer studies have utilized all five subscales of the CTQ and examined the effects of multi-type maltreatment (e.g., Arata, Langhrichsen-Rohling, Bowers, & Farrille-Swails, 2005; Martsolf, et al., 2004; Messman-Moore & Garrigus, 2007). These studies have found the CTQ to be an appropriate retrospective measure in assessing the effects of multi-type maltreatment on a variety of negative adulthood outcomes including eating disorder symptomatology (Messman-Moore & Garrigus, 2007), psychological distress (e.g., anxiety, depression, suicidal ideation, self-esteem; Arata et al., 2005), delinquency (Arata et al., 2005), substance abuse (Arata et al., 2005), and physical health symptoms (Martsolf et al., 2004), among others. However, no studies have utilized the CTQ as a continuous measure of poly-victimization as it is conceptualized in the present study. Again, poly-victimization differs from multi-type maltreatment in that it is concerned with the number of *acts* of victimization (e.g. being hit with an object) an individual experiences, not the number of *types* (e.g. physical abuse) of maltreatment (i.e. multi-type maltreatment).

The CTQ has several strengths. It has strong psychometric data to support its reliability and validity with a variety of samples (Bernstein et al., 1994; Bernstein et al., 2003; Fink et al., 1993). It is a more comprehensive measure of childhood maltreatment than most measures that have been used in past studies, assessing a range of experiences one may have in childhood (e.g. physical abuse, sexual abuse, emotional abuse, physical neglect, and emotional neglect). The scores on the CTQ can be used to examine different

types of childhood maltreatment in isolation (by their individual subscale scores) or examine the effects of poly-victimization by combining subscale scores. Finally, the CTQ utilizes continuous as opposed to dichotomous (present/absent) subscales of maltreatment. This is advantageous for several reasons, including having greater statistical power and allowing the further differentiation of individuals who have experienced higher- and lower-levels of victimization (Bernstein et al., 1994). That being said, the CTQ is not without limitation.

A significant limitation of the CTQ is that it is not as comprehensive as some of the newer childhood maltreatment measures. Specifically, the CTQ excludes the experience of witnessing family violence and other types of societal or community violence (e.g. property crime) that have been shown in the literature to have negative short- and long-term effects on some individuals (Kindermann et al., 1997; Wells & Rankin, 1995). Additionally, because Bernstein et al. (1994) developed the items of the CTQ using a review of the child abuse literature, this measure was not specifically designed with real-world categories and public policy (official child protective system offense categories) in mind. Thus the categories of abuse that are assessed do not easily map onto the categories used by practitioners and child protection agencies. Finally, the wording of the CTQ items does not specify who the perpetrator of the victimization was. For example, one of the physical abuse items asks "when you were growing up were you ever hit badly enough to be noticed." By not specifying a perpetrator (e.g. parent, sibling, adult non-relative) it is difficult to discern whether this incident would be termed physical abuse as defined by child protective services (physical abuse by a caregiver).

Comprehensive Child Maltreatment Scale

Acknowledging that different types of childhood maltreatment tend to co-occur and existing instruments to a large extent place less (if any) emphasis on psychological maltreatment, neglect, and witnessing family violence, Higgins and McCabe (2001b) developed a new questionnaire in an attempt to fill this gap in the literature. Designed specifically for use with adult participants, Higgins and McCabe developed two versions of their measure: a retrospective version called The Comprehensive Child Maltreatment Scale (CCMS) for Adults and a version for parents to describe the experiences of their children called the CCMS for Parents. Because the CCMS for Adults is more similar to the adult retrospective version of the JVQ than is the CCMS for Parents, this review will only discuss the adult retrospective version of the CCMS.

The CCMS for adults is a 22-item, adult retrospective self-report questionnaire designed to assess individuals' perceptions of their childhood experiences with sexual abuse, physical abuse, psychological maltreatment, neglect and witnessing family violence. This measure differs from other existing childhood maltreatment measures in several different ways. First, the respondent is asked to report on experiences he had prior to the age of 13. This age cut-off is considerably lower than the cut-offs of other maltreatment measures (most commonly 16 or 17). Second, the respondent is asked to rate the frequency with which she experienced each type of victimization by three different possible perpetrators (i.e. mother, father, and other adult or adolescent who was at least 5 years older than the respondent). This requirement pertains to victimizations falling into four of the five subscales (sexual abuse, physical abuse, psychological

maltreatment, and neglect). For the items of the witnessing family violence subscale, respondents are only asked to rate the frequency with which they experienced the behavior (without specifying a particular perpetrator). Third, the rating scale is not consistent across all items. For the items assessing physical abuse, psychological maltreatment, neglect, and witnessing family violence the respondent is asked to rate the frequency of that experience on a five point scale (0 – Never or almost never; 1 – Occasionally; 2 – Sometimes; 3 – Frequently; 4 – Very frequently). For the items comprising the sexual abuse subscale the respondent is asked to indicate the frequency of each behavior on a 6-point scale (0 - Never, 1 – Once, 2 – Twice, 3 – Three to six times, 4 - Seven to 20 times, 5 - More than 20 times). Fourth, some of the sexual abuse items are only relevant to male perpetrators (e.g. "Showed you his erect penis"). These differences may prove problematic when trying to generalize findings of studies using this measure to other studies using different measures.

Scores on the CCMS are summed into five subscales. The sexual abuse scale is comprised of 11 items. The physical abuse, psychological maltreatment, and neglect subscales are each comprised of three items. The witnessing family violence subscale is comprised of two items. The responses to the items of each subscale are summed together to yield a continuous subscale score. A total maltreatment score can also be calculated by summing all five subscales scores together. Higgins and McCabe (2003) have used this total maltreatment score in several studies (e.g. Higgins, et al., 2003) to examine the effects of child maltreatment in general. As will be discussed later, this score is similar to the continuous poly-victimization score yielded by the JVQ. To

examine poly-victimization using a categorical measure, Higgins and McCabe (2000a) first calculated sample mean scores for each of the subscales to use as a cut-off. Participants who scored higher than the mean on a particular subscale were classified as having experienced that type of maltreatment. Participants scoring higher than the mean on three or more types of maltreatment were classified as having experienced poly-victimization. Higgins and McCabe (2000a) did not specify why they decided to use three types of victimization as the cut-off for poly-victimization, however they did find that those participants who experienced three or more types of maltreatment reported greater psychological distress (M=39.92) as measured by the Trauma Symptom Checklist-40 (TSC-40, Briere & Runtz, 1989) as compared to participants who only experienced one or two types of maltreatment (M=28.19) (F [3, 116] =14.23, p<.001). Higgins and McCabe (2000a) also observed that participants experiencing three or more types of maltreatment reported greater self-deprecation (M=27.02) as measured by the Rosenberg Self-Esteem Scale (1965), than did participants experiencing only one or two types of maltreatment (M=21.97) (F [3,116] = 11.21, p <.001). This is one method of classifying and measuring poly-victimization that will be explored in this study.

Although relatively new, the CCMS has already been utilized in several studies designed to investigate the long-term effects of child maltreatment in adults. This measure has primarily been used in studies that assess the mediating and moderating roles of family characteristics, such as family cohesion and family environment (e.g. substance abusing parent in home), and childhood maltreatment on adjustment in adulthood (Higgins & McCabe, 2000a; 2000b; Higgins et al., 2003). Early results

indicated that family characteristics act as risk factors for experiencing multiple types of maltreatment in childhood and thus have both a direct and indirect effect of the development of depression, low self-esteem, and anxiety in adulthood (Higgins & McCabe, 2000a; 2000b; 2003; Higgins, et al., 2003).

In summary, the CCMS-adult has a few strengths that support its use as an acceptable measure for assessing retrospective reports of childhood maltreatment. First, preliminary evidence demonstrating its reliability and validity for use with community adult sample is favorable (Higgins & McCabe, 2000a; 2001b). Second, the range of maltreatment assessed is more comprehensive than most existing measures, due primarily to the inclusion of witnessing family violence. Third, this questionnaire provides a continuous measure of the various types of maltreatment as well as the option for calculating a dichotomous categorical score. This is advantageous because it allows for the assessment of severity and frequency of maltreatment as well as presence versus absence of maltreatment. Despite these strengths, the CCMS has several limitations that bear keeping in mind when choosing a measure for assessing childhood maltreatment.

First of all, although the CCMS is more comprehensive than the CTQ in that it assesses for exposure to domestic violence, the measure still excludes exposure to community violence. Moreover, although the CCMS inquires about multiple perpetrators (e.g. mother, father, and other adult/older adolescent), it fails to assess for victimization that may have been perpetrated by similar-aged peers or siblings. Second, the psychometric properties of this measure have only been demonstrated with community samples of adults (Higgins & McCabe, 2000a, 2001b), it is unknown whether this

measure is as applicable for use with more clinical samples. Third, the samples used to examine its reliability and validity were primarily female (Higgins & McCabe, 2000a; 2001b), therefore more research is needed to see if similar results are obtained in primarily male samples. Finally, the decision of the authors to use a cut-off of 13 years old, as opposed to the more common 16 or 17 years old cut-off, may be problematic for some researchers interested in youth victimization as well as childhood victimization. It also limits the comparability of findings obtained with this measure with studies that utilize alternate childhood maltreatment measures that use the more common cut-offs of age 16 or 17.

To review, although the two measures described thus far have many strengths and have addressed a few of the measurement limitations discussed earlier in this chapter, there are still several lingering gaps that need to be filled. First, measures of childhood maltreatment need to assess a broad range of victimizations one may experience in childhood, including acts of witnessing domestic violence, indirect victimization (e.g. exposure to terrorism), and conventional crime (e.g. robbery). Second, it is beneficial if the acts of victimization included on these measures are consistent with acts that clinicians, law enforcement, and child protective service agencies look at when determining whether a child has been maltreated. Consistency between research and practice in this area will facilitate further collaboration across multiple disciplines involved in the well-being of children. Finally, as victimization by siblings and peers gains increased attention, it is important to assess for these types of victimizations in addition to victimization perpetrated by adults. The next section describes how the

newest measure of childhood victimization, the Juvenile Victimization Questionnaire, addresses each of these gaps, and provides justification for why this measure may be most appropriate for examining poly-victimization.

Juvenile Victimization Questionnaire

This section expands upon the information provided in chapter one and provides an overview of the JVQ. First, a summary of the reasoning behind the construction of the JVQ is provided. Next, the various self-report formats of the questionnaire are briefly described. Finally, several studies that have utilized the JVQ to examine the short- and long-term effects of poly-victimization in both children and adults are reviewed.

Rationale for the Development of the Juvenile Victimization Questionnaire

Hamby and colleagues (2005) designed the JVQ with the intention of addressing the limitations of existing childhood maltreatment assessment measures. Specifically, the researchers wanted to design a measure that was a) comprehensive – covering the full spectrum of childhood victimization including maltreatment, crime victimization, sexual assault, bullying, and witnessing violence; b) had developmental breadth – was able to be used with very young children, youth, and adults; and c) employed official categories used by agencies that deal with victimization in childhood (Hamby et al., 2005). The reasoning behind the latter aspect of the design of the JVQ was two-fold. First, although several disciplines have conducted extensive research on the effects of child victimization separately, there has been little collaboration between the social sciences and other disciplines (e.g. criminal justice) on child victimization rates, effects, and suggestions for interventions (Hamby & Finkelhor, 2000). It has been suggested that designing a

measure that utilizes crime categories or other official categories will increase collaboration and make comparison of studies across disciplines easier (U.S. Department of Justice, 1994). Second, using the same crime categories for children that exist for adults will facilitate comparisons between child and adult rates of victimization (Hamby & Finkelhor).

The JVQ is designed to gather information about a broad range of victimizations. It covers victimizations unique to childhood (e.g. neglect) as well as crimes that can be experienced by youth as well as adults (e.g. assault and theft) (Hamby et al., 2005). Consistent with the recommendations discussed earlier (Hamby & Finkelhor, 2000) techniques such as behaviorally-specific worded items and specific questions designed to target victimizations by parents, peers, and other perpetrators who are less likely to be identified through more generic questioning have been employed to make the acquisition of such sensitive information as easy and unthreatening as possible. Extensive work has been done to ensure that the wording of the items on the JVQ is as easy to understand as possible, and can be administered to children as young as 8 years old.

There are several different self-report formats of the JVQ including: child self-administered questionnaire, caregiver self-administered questionnaire, and adult retrospective self-administered questionnaire. These forms differ in who is reporting the victimization(s), and the reference period being inquired about. More specifically, the *Child Self-Administered Questionnaire* is designed for children aged 12 to 17 and can be administered individually or in group settings. The *Caregiver Self-Administered Questionnaire* can be used for children aged 0 to 17 and requires that the caregiver who

has had regular contact with the target child over the past year complete the form. Both the child and caregiver versions ask respondents to report victimizations experienced during the previous year. The *Adult Retrospective Version* is designed for adults aged 18 and older and requests information about the first 17 years of the person's life. The present study only focuses on the adult retrospective version.

Adult Retrospective Version

Although the JVQ was developed primarily for use with children and adolescents, the authors modified their original measure to form an adult retrospective version of the questionnaire. Simply, the phrase "In the last year" on the original version was replaced with "ever" to assess all victimizations an individual may have experienced up to and including age 17. Hamby and colleagues (2005) stated that the advantage of the retrospective version of the JVQ is that it attempts to ascertain a more comprehensive "lifetime inventory" of victimization. The JVQ is designed to assess 33 different acts of victimization that one may experience during childhood. The different acts of victimization are rated for their frequency of occurrence on a six point scale (1 time, 2 times, 3 times, 4 times, 5 or more times, and No). These 33 different acts of victimization are sorted into one of five subscales of victimization: Conventional Crime (e.g. robbery, vandalism), Child Maltreatment (e.g. neglect, emotional abuse), Peer and Sibling Victimization (e.g. bullying, dating violence), Sexual Victimization (e.g. sexual assault, sexual harassment), and Witnessing and Indirect Victimization (e.g. domestic violence, exposure to riots). Although, more detail on the design, construction, and general scoring of the JVQ is provided in chapter three, brief mention of how the items

on the JVQ may be grouped into subscales is warranted to minimize confusion regarding the research findings in the following sections.

While Hamby's group (2005) originally designed the items of the JVQ to fall into one of five subscales (e.g. conventional crime, child maltreatment, peer/sibling victimization, sexual victimization, witness/indirect victimization), they also acknowledged that other researchers may be interested in different sub-groupings of victimization other than those initially specified by the JVQ. In other words, researchers or clinicians may be interested in a subset of victimizations other than the five identified subscales. For example, researchers in the child sexual abuse field are sometimes more concerned with contact sexual abuse (e.g. penetration with object) as opposed to non-contact sexual abuse (e.g. flashing) because the former has been shown to have more deleterious long-term effects (Myers et al., 2002). Therefore, these researchers may be hesitant to use the Sexual Victimization subscale of the JVQ in their analyses because it includes both contact and non-contact sexual abuse. Taking this into consideration, Hamby's group (2005) developed several additional subscales that may be of interest to administrators of the JVQ. Hamby and colleagues termed these scales "composites" or "aggregates" however they will be referred to as subscales for simplicity's sake from this point on. These additional subscales either a) consist of a sub-set of items from one of the other subscales or b) combine items across several subscales into a new subscale. An example of the former is the Sexual Assault subscale which only includes contact sexual victimizations (4 of the 6 sexual victimization subscale items). An example of the latter is the Physical Assault subscale which combines 10 victimizations from several subscales

(e.g. conventional crime – 5, peer/sibling victimization - 4, and child maltreatment – 1), and assesses for various types of physical assault regardless of who the perpetrator is. Researchers utilizing the JVQ in research have thus far identified up to four additional subscales in addition to the original five subscales. For this reason, the number of subscales analyzed in the research studies that follow ranges from five to nine depending on the study.

In summary, the JVQ has several advantages over the other two measures described in this chapter, three of which incorporate some of the specific recommendations discussed earlier (Hamby & Finkelhor, 2000). First, the items are designed to map onto existing crime categories used by child protection agencies in the hopes of facilitating collaboration across disciplines and improving the generalizability of findings obtained with the JVQ. Second, the JVQ includes the rarely studied concept of witnessing or experiencing indirect victimization and expands the victimizations to be assessed beyond inquiring only about witnessing family violence. Third, the JVQ includes non-violent victimizations as well as victimizations that involve force and specifically inquire about victimizations by known individuals, family members, and peers. Finally, the JVQ can be administered in several different formats to children as young as eight, and can be adapted for use with caregivers and retrospective use with adults.

Poly-Victimization Studies Utilizing the JVQ

Finkelhor, Ormrod, et al. (2005b) recruited a random, nationally representative sample of children aged 2-17 to obtain reports of their experiences with various acts of

childhood victimization. Significant detail about the methodology of this study is provided here because many of the studies discussed hereafter were conducted with this same sample. Using a list-assisted random digit dial (RDD) telephone survey design, participants were contacted and invited to participate in an interview over the phone. After a brief interview with an adult caregiver to determine family demographic information, one eligible child from each household was randomly selected (based on whichever child had the most recent birthday) to participate in the survey. If the child was aged 10-17 the phone interview was conducted with the child, and if the child was 2-9 years old the interview was conducted with the caregiver who was "most familiar with the child's daily routine and experiences" (p. 386). A total of 2,030 participants completed this telephone survey, of those 1,000 interviews were conducted with children aged 10-17 and 1,030 interviews were conducted with caregivers for children aged 2-9. The age group and gender of the sample was fairly evenly split, half were male and half were female, 51% were aged 2-9 and 49% were aged 10-17.

This sample was originally recruited to examine the reliability and validity of the child and caregiver versions of the JVQ (Finkelhor, Hamby, Ormrod, & Turner, 2005). However, given the ideal qualities of this sample (e.g., large sample size, randomly sampled, nationally representative), the same set of 2,030 responses or a subset of this sample was used in each of the JVQ child and caregiver studies that are described in this section. Because the present study focuses exclusively on the adult retrospective version of the JVQ, only a few of the studies conducted with child participants, those most relevant to poly-victimization, will be reviewed in this section. Considerably more focus

with be given to studies that have utilized the adult retrospective version of the JVQ with adult samples.

Finkelhor, Ormrod, and Turner (2007b) utilized the same national sample of 2,030 children described earlier to specifically examine the concept of poly-victimization. In a one-year incidence study, the researchers investigated whether poly-victimization was relevant to the assessment of victimization trauma. In order to assess poly-victimization, several measures had to be created. First the authors created a continuous measure of poly-victimization based on the number of individual screener items that were endorsed by the participants. Using a narrative interview, participants were surveyed about their experiences with different acts of victimization and follow-up questions were asked to determine the number of separate incidents the child had experienced. For example, if a child reported an incident where he or she was both physically and sexually assaulted by a known person at the same time, this would only count as one incident. Even though the child experienced two different acts of victimization (sexual and physical assault) they occurred as part of the same incident. However, if the respondent was beaten with a hard object by his or her uncle one day (assault with a weapon) and the next day their uncle purposefully broke the child's bicycle (vandalism); these would be counted as two separate victimizations.

Next, the authors created a categorical measure of poly-victimization on which to compare poly-victims to non poly-victims. The average number of victimizations (out of 34) experienced by the sample as a whole during the past year was 3.0, therefore the authors decided to use four victimizations as the cut-off for experiencing poly-

victimization (one higher than the mean). Using this criterion, 22% of their sample were identified as poly-victims. Finkelhor et al. (2007b) made the decision to go a step further and distinguish between children with low levels of poly-victimization, experiencing 4 to 6 victimizations (15% of the sample), and children with high levels of poly-victimization, experiencing seven or more victimizations (7% of the sample). The cut-off of seven victimizations was used because it represented the top third of the poly-victim group.

Finally, the authors were interested in the prevalence of children experiencing the same act of victimization multiple times. This information was determined through follow-up questions asking how many times in the last year the participant had experienced this act of victimization. Children who reported experiencing more than one incident of the same act of victimization were classified as chronic victims. The rationale behind this specific classification was to ensure that participants who had only experienced one episode of one act of victimization could be clearly identified.

Of the 2,030 children surveyed, 71% had experienced at least one act of victimization, and 69% of those children had experienced at least one additional, different act of victimization in a separate incident. Six multiple regression analyses were conducted to examine the association between poly-victimization and psychological distress for each age group (ages 2-9 and ages 10-17) and each trauma symptom score (i.e. anxiety, depression, and anger/aggression), controlling for demographics (e.g. age, gender, race, SES, family structure, and place size) and nonviolent lifetime adversity (e.g. serious illness, accident, natural disaster, etc.). Results of this study showed that poly-victimization was a strong predictor of trauma symptoms for each age group, accounting

for a significant portion of the variance accounted for in scores on the anger (3.6%; 10.9%), depression (10.2%; 14.4%), and anxiety (11.6%; 17.6%) subscales of the TSYC and TSCC, respectively. Perhaps more importantly, regression analyses showed that despite a previous significant association between each of the six individual victimization subscale scores and trauma symptoms, when poly-victimization was added into the regression analyses these previous associations were either significantly reduced or eliminated completely. Moreover, the researchers found that poly-victims scored significantly higher on measures of trauma symptoms when compared with chronic victims. In other words, children who reported multiple experiences with different acts of victimizations (4 or more) had more symptoms than children who had only experienced multiple incidents of the same single act of victimization. Finally, this study demonstrated the variety of ways the JVQ can be used to explore participant victimization profiles (e.g., continuous measure of poly-victimization, categorical measure of poly-victimization, measure of chronic victimization).

Given the rising awareness that individuals who have experienced one act of victimization often experience additional acts of victimization, the logical next step is to determine how best to identify individuals who have experienced multiple acts of victimization. In doing so, many questions arise. For example, should certain types of victimizations carry more weight than others or should we simply sum together the number of victimizations one experiences? Is it possible to survey all the possible forms of victimization children may be exposed to, and is it even necessary to have such a comprehensive measure? How many items are needed to sufficiently examine the broad

range of the victimization one can experience in childhood? Considering these questions, Finkelhor and colleagues (2005a) explored two alternative ways to measure poly-victimization using the JVQ, and also developed a brief version of the JVQ. Using their national sample of 2,030 children aged 2 – 17, the researchers assessed the utility of three alternate ways of measuring poly-victimization by evaluating their ability to predict trauma symptomatology. The purpose of the study was to determine a) which method of measuring poly-victimization was the best predictor of trauma symptoms and b) whether it is possible to adequately assess poly-victimization using a lower number of victimizations.

The first method was termed the *Separate Incident* method and involved summing the number of separate incidents (occurring at a different time and place) involving different victimizations. This way of measuring poly-victimization was described in more detail earlier (see study by Finkelhor et al., 2007b), and requires follow-up questions in addition to the questionnaire. The second version called the *Screener Sum* method, involved only the initial 34 screener items of the questionnaire, without regard to the follow up questions. In this method, the researchers summed the number of initial screener items the participant endorsed. Again using the example of a child experiencing both physical and sexual assault by a known person at one point in time, this experience would count as two different victimizations using the Screener Sum method as long as the respondent endorsed both the sexual assault item and the physical assault item, despite the fact that they were part of the same incident. The third approach used the same method as the Screener Sum method but only included a small sub-set of 12 items

(as opposed to 34). This final method was termed the *Reduced Item Screener* Version of the JVQ. Separate multiple regression analyses were conducted for children aged 2 – 9 and youth aged 10 – 17, where the three different ways of measuring poly-victimization were the predictor variables (along with demographic variables and additional lifetime adversities) and the Anger, Anxiety, and Depression subscales of the Trauma Symptom Checklist for Children (TSCC) and Trauma Symptom Checklist for Young Children (TSCYC) were the criterion variables.

Using the *Separate Incident* method, the average number of different victimizations reported by the sample in the last year was 3 (the highest number of victimizations reported was 15). As discussed earlier, the researchers decided to classify children as "poly-victims" if they had experienced 4 or more different types of victimization in the last year as separate incidents (one higher than the mean). Using this criterion, 22% of their sample was identified as poly-victims. When examining the predictive ability of the *Separate Incident* measure of poly-victimization in a multiple regression analysis that controlled for demographic factors and other lifetime adversities (e.g. substance abuse, family conflict, homelessness, etc.), this measure proved to be a powerful predictor (i.e. standardized regression coefficient $\geq .30$) of five of the six subscales of the TSCC and TSCYC. The separate incident measure of poly-victimization was a statistically significant, although less powerful, predictor of scores on the anxiety subscale of the TSCYC ($\beta=.17$).

Although there are many advantages to using the *Separate Incident* method to assess poly-victimization, there is one significant disadvantage. To utilize this measure

of poly-victimization the administrator has to use the JVQ along with all the follow-up questions and distinguish which acts of victimization may have been part of the same incident. In addition to being time consuming, the scoring of this method is much more complex. Therefore the *Screener Sum* method may be more realistic for individuals who do not have the time to administer the extended version of the JVQ. When employing the *Screener Sum* method, Finkelhor's (2005a) group determined that this method performed as well and for some scales even better than the *Separate Incident* method in predicting trauma scores. Specifically, the standardized regression coefficients for five of the six subscales when using the Screener Sum method of poly-victimization were $\geq .34$. The remaining subscale, Anxiety on the TSCYC, had a statistically significant standardized regression coefficient of .20 which is higher than was observed using the Separate Incident method (i.e. $\beta=.17$). However, it is important to remember that using this method increases the number of victimizations reported by the participants. In other words, because the Screener Sum method counts different victimizations that occurred during the same incident (e.g. a child who is physically assaulted and robbed at the same time) as two separate victimizations as opposed to being counted as only one victimization when using the Separate Incident method, the number of victimizations reported by some participants may be greater depending upon which method is used. Finkelhor et al (2005a) found that when using the Screener Sum method to measure poly-victimization, the mean number of victimizations reported by their sample increased from 3.0 to 3.7 and the high number of victimizations reported increased from 15 to 19. Considering this, Finkelhor and colleagues (2005a) advised against using the same

arbitrary cut-off for separating poly-victims from non poly-victims if using both methods of measuring poly-victimization with the same sample.

Finally, acknowledging that a) researchers may often be limited in their choice of assessment measures by time and data collection constraints, and b) that several of the items included on the JVQ are relatively rare (e.g. exposure to war), Finkelhor et al. (2005a) examined the utility of a shorter *Reduced-Item* Version of the JVQ. The researchers developed a 12-item poly-victimization measure that included victimizations from all five subscales. Scores were calculated using the *Screener Sum* method with this abbreviated measure. The *Reduced-Item* Version method correlated very strongly with the full 34-item JVQ using both the *Separate Incident* (r =.87) and *Screener Sum* (r =.92) scoring methods. A very similar pattern of results was observed using this shortened version to predict scores on the subscales of the TSCC and TSCYC (βs ranged from .20 to .38). While this version is time-efficient and has similar success predicting trauma symptoms, it has some disadvantages. Due to its abbreviated nature, the *Reduced-Item* Version does not have the ability to identify and examine sub-groups of poly-victims (e.g. high and low-level poly-victims) that the other versions have.

Overall, the pattern of results in predicting trauma symptoms obtained when using the two different methods for identifying victims of poly-victimization (Separate Incident and Screener Sum) were roughly equivalent in their effectiveness. Therefore Finkelhor and colleagues (2005a) concluded that either of these methods are appropriate and future researchers should choose which method to use based upon their research objectives. For researchers interested primarily in the effects of poly-victimization, the *Screener Sum*

Version is recommended. Individuals more interested in delineating and classifying separate incidents and types of victimizations may choose to use the *Separate Incident* Version. Finally, the Reduced Item Version of the JVQ performed just as well as the original 34-item version of the JVQ when the Screener Sum method of measuring poly-victimization was used to predict trauma scores. Therefore, for researchers and clinicians with strict time limits and who are not interested in a very specific and comprehensive victimization inventory, the *Reduced Item* Version is an acceptable option. Despite these positive findings additional research still needs to be conducted to replicate these results with additional samples to ensure the equivalency of the two scoring methods and abbreviated version of the JVQ.

Having briefly summarized the poly-victimization research that Finkelhor's group has done (2005a; 2007a; 2007b) utilizing the child and caregiver versions of the JVQ, I next discuss the limited poly-victimization research that has been conducted with the adult retrospective version of the JVQ. To date, only two studies (Elliott et al., 2009; Richmond et al., 2009) have been conducted that utilized the adult retrospective version of the JVQ.

JVQ Poly-Victimization Studies with Adult Samples

Richmond and colleagues (2009) examined psychological distress in college-age women who had experienced poly-victimization in childhood. Building upon the results reported by Finkelhor and colleagues (2005a; 2007a; 2007b) with child samples, the researchers wanted to determine whether similar patterns of results would be obtained with an adult sample. Using the retrospective version of the JVQ, participants were

asked to indicate all acts of victimization experienced during their childhood up through the age of 17. Using the JVQ, Richmond et al. created a continuous poly-victimization variable by summing the total number of victimizations experienced by each participant (range from 0 to 33). Additionally the researchers examined six victimization subscales (e.g. sexual abuse, physical assault, child maltreatment, peer and sibling victimization, property crime, and witnessing or indirect victimization). For the regression analyses conducted by Richmond's group, these subscales were scored dichotomously as victimization experienced or victimization not experienced. For example, "yes the participant experienced peer or sibling victimization" or "no the participant did not experiences peer or sibling victimization". The continuous subscale total score was used to examine the internal consistency of the individual subscales. Two separate samples of college-age women were recruited from psychology courses at a small southeastern university in Virginia and participated in one of two studies.

In the first study, a series of hierarchical regression analyses were conducted to examine the relative contributions of the poly-victimization variable and the six individual victimization subscales (e.g. sexual abuse, physical assault, child maltreatment, peer and sibling victimization, property crime, and witnessing or indirect victimization) in predicting psychological distress. A sample of 311 women were recruited and administered the adult retrospective version of the JVQ and two psychological distress questionnaires, the Symptom Checklist 90-Revised (SCL-90-R; Derogatis, 1994) and Inventory of Altered Self-Capacities (IASC; Briere, 2000). Both of these psychological distress measures were designed to assess symptoms often associated

with a history of child abuse. The IASC was described at the beginning of this chapter. The SCL-90-R is comprised on nine subscales: Somatization, Obsessive-Compulsive, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism. The internal consistency of the six victimization subscales as measured by the JVQ obtained with this adult sample were comparable (ranging from .54 to .70) to those found by Finkelhor et al (2005a).

Following the recommendations of Finkelhor's group (2005a) the researchers used the *Screener Sum* method to calculate their measure of poly-victimization. Ninety-seven percent of this sample reported experiencing at least one of the 33 acts of victimization assessed on the JVQ. The average number of victimizations experienced for this sample was 7.8 (range 0 to 28). Specifically examining the six victimization subscales, results showed that many participants reported experiencing at least one act of peer or sibling abuse (88.1%), physical assault (80.4%), property crime (77.5%), witnessed or indirect victimization (74.6%), sexual victimization (46.3%) or child maltreatment (29.6%). In order to examine the prevalence of experiencing multiple types of victimization, the researchers investigated the percentage of participants who had experienced victimization in one or more subscales. Results showed that almost 92% of the sample reported experiencing two or more types of childhood victimization. Even more striking was the finding that more than 40% of the sample reported experiencing victimization in five or six subscales. Inter-correlations between the different victimization subscales were significant, although lower than those reported by previous researchers (Higgins & McCabe, 2000a; 2001b; 2003; Finkelhor et al., 2007a). With the

exception of the correlation between peer/sibling victimization and physical assault (*r* =.57), the correlations ranging from .15 to .29.

Several hierarchical regression analyses were conducted to examine the relative contributions of poly-victimization and each of the six individual victimization subscales in predicting psychological distress. Separate analyses were run in which a) each of the individual subscales were entered into the prediction model at Step 1, followed by the continuous measure of poly-victimization at Step 2, and b) poly-victimization was entered into the prediction model at Step 1, followed by the individual subscale at Step 2. Consistent with previous findings reported by Finkelhor's group (2005a; 2007b), Richmond et al. found that when entered into the prediction model at Step 1, poly-victimization was a significant predictor of psychological distress accounting for 3-14% of the variance (average variance accounted for = 8%) in the SCL-90-R subscales and 5-19% (average variance accounted for = 8%) of the variance in the IASC subscales. Moreover, when poly-victimization was entered at Step 1, the individual subscales added in Step 2 contributed little to no additional variance in the prediction of psychological distress. In a final set of regression analyses, Richmond's group entered all six subscales into the prediction model as a single block of predictors to examine the unique contribution of each predictor. In these analyses only child maltreatment and sexual abuse emerged as significant unique predictors of psychological distress. However, when poly-victimization was entered as a seventh predictor along with the six subscales, poly-victimization emerged as the only significant predictor for the majority of the outcome measures. The researchers suggested that these findings further demonstrate that poly-

victimization accounts for most of the unique variability formerly attributed to the individual subscales.

After observing statistically significant findings in their first study, Richmond et al. conducted a second follow-up study with a separate set of 321 college-age women to a) replicate the findings of the first study by utilizing one of the same outcome measures (i.e. SCL-90-R), and b) extend the previous findings by examining the ability of poly-victimization to predict scores on a different outcome measure specifically designed to assess posttraumatic stress and other trauma symptoms (i.e. the Trauma Symptom Inventory, TSI; Briere, 1995).

Similar findings were observed with this new college sample with the TSI as the outcome measure. Ninety-eight percent of this sample reported experiencing at least one of the 33 acts of victimization assessed on the JVQ. The average number of victimizations experienced for this sample was higher than the previous study 8.7.victimziations compared to 7.8. Again, when examining the six victimization subscales, results showed that many participants reported experiencing at least one act of peer or sibling abuse (87.9%), physical assault (80.4%), property crime (79.4%), witnessed or indirect victimization (73.2%), sexual victimization (57%) or child maltreatment (41.1%). Results showed that almost half of the sample (49.2%) reported experiencing victimization in five or six subscales. Inter-correlations between the different victimization subscales again were significant, although slightly higher compared to the first study. With the exception of the correlation between peer/sibling victimization and physical assault (r =.54), the correlations ranging from .16 to .35.

Further, the correlations between poly-victimization and the six subscales were significant, ranging from .39 for peer and sibling abuse to .59 for child maltreatment.

The findings of the hierarchical regression analyses were highly consistent with those obtained in the first study. Again poly-victimization accounted for a significant proportion of the variance in psychological distress, ranging from 5-16% for the SCL-90-R subscales (average variance accounted for = 12%) and 13-17% for the TSI subscales (average variance accounted for = 15%). Similarly, the unique contribution of the individual subscales to psychological distress at Step 2 of the analyses was nonsignificant and relatively zero when poly-victimization was added to the prediction model in Step 1. Finally, consistent results were observed when the six subscales and poly-victimization were entered into the prediction model together as a single block of predictors. Poly-victimization again was the only unique predictor for the majority of subscales, however this time peer/sibling victimization was also a unique predictor for three of the SCL-90-R subscales (i.e. Obsessive-Compulsive, Interpersonal Sensitivity, and Depression).

With the same sample of 321 college-age women used in Study 2 by Richmond's group (2009), Elliott et al. (2009) examined the relation between poly-victimization and adjustment to college. Poly-victimization was measured in the manner previously described by Richmond et al., using the Screener Sum method of the JVQ. Adjustment to college was assessed with two measures: The College Adjustment Scale (CAS; Anton & Reed, 1991) and the Student Adaptation to College Questionnaire (SACQ; Baker & Siryk, 1999). The CAS is comprised of nine subscales on which higher scores reflect greater adjustment difficulties: Anxiety, Depression, Suicidal Ideation, Substance Abuse,

Self-Esteem Problems, Interpersonal Problems, Family Problems, Academic Problems, and Career Problems. The SACQ is comprised of four subscales in which lower scores demonstrate difficulty in adjusting to college: Academic Adjustment, Social Adjustment, Personal-Emotional Adjustment, and Institutional Attachment/Goal Commitment. Elliott's group conducted the same six hierarchical regression analyses as Richmond et al. (2009) did, entering the continuous measure of poly-victimization into the regression model at Step 1 and then the dichotomous individual subscale category (i.e. property crime, physical assault, child maltreatment, peer/sibling victimization, sexual victimization, and witness/indirect victimization) was entered in Step 2 of the regression model. Specifically the researchers were interested in determining whether a) poly-victimization accounted for a significant portion of the variance in the college adjustment as defined by the subscales of the CAS and SACQ and b) whether the individual types of abuse accounted for any additional variance over and above the variance accounted for by poly-victimization.

Regression analyses showed that poly-victimization accounted for a statistically significant portion of the variance in college adjustment as measured by the CAS and SACQ. Elliot et al. reported that relatively small effect sizes were observed when the individual types of abuse were examined in isolation in their ability to predict college adjustment. Specifically, the average percentage of variability accounted for in the thirteen subscales for each of the six type of victimization only ranged from 2 to 6%. However, when poly-victimization was used to predict scores on the thirteen subscales, moderate effect sizes were observed. Poly-victimization accounted for an average of

14% of the variance in the nine subscales of the CAS (ranging from 4 to 26%) and accounted an average of 9% of the variability in the four subscales of the SACQ (ranging from 5 to 15%). Although poly-victimization accounted for a statistically significant portion of the variance in all thirteen subscales, it was found to be the most predictive of interpersonal and family problems commonly experienced by college students (accounting for 23 and 26% of the variance, respectively). In general, these findings led Elliott et al. to suggest that accounting for multiple acts of victimization that may be experienced in childhood (e.g. poly-victimization) is a better predictor of poor adjustment to college than any individual type of victimization in isolation.

In summary, the findings of these two studies provide preliminary evidence as to the utility of the retrospective version of the JVQ in assessing poly-victimization. Exposure to multiple types of victimization was common in these samples of nonclinical, presumably high-functioning female college students, with as many as 49% experiencing victimization in five or six categories as defined by the JVQ. Further, these results demonstrated the importance of assessing for poly-victimization not only because of its high prevalence, but also because of its unique ability to predict and account for variance in psychological distress measures over above the variance accounted for by individual maltreatment types. Both the child and adult JVQ studies described in this chapter demonstrated the variety of ways in which the JVQ can be using to measure poly-victimization.

Summary and Hypotheses

It is becoming increasingly clear that individuals who have been subjected to one form of abuse, such as childhood sexual abuse, may also have been the victims of additional forms of abuse (e.g. physical abuse, neglect, psychological abuse, peer and sibling abuse, etc.). Individuals who have experienced multiple acts of maltreatment in childhood can be classified as poly-victims. Early research on the concept of poly-victimization, as defined by the Juvenile Victimization Questionnaire, has shown poly-victimization to be a significant predictor of both short-term trauma symptoms in childhood and long-term psychological distress in adults. Specifically, poly-victimization has been demonstrated to account for a significant portion of the variance in scores on measures designed to assess trauma symptoms, psychological distress, and adjustment to college. Moreover, research has shown that poly-victimization was a better predictor of anxiety, depression, and anger in children (Finkelhor, Ormrod, et al., 2005a; Finkelhor et al, 2007a; 2007b; 2007c) and a better predictor of psychological distress (Richmond et al., 2009) and poorer college adjustment (Elliott et al., 2009) in adulthood than was the experience of any individual victimization (e.g. sexual abuse, physical abuse, neglect, etc.) on its own. As research is beginning to demonstrate the potential impact of poly-victimization, researchers are in need of a) empirical evidence suggesting how best to measure poly-victimization and b) comprehensive measures of poly-victimization to use in future studies.

Research examining the relation proposed by Constructivist Self-Development Theory between childhood maltreatment and impaired self-capacities, as a means for

explaining the psychological distress experienced by adult survivors of maltreatment, has produced promising results. Preliminary findings suggest that childhood maltreatment is associated with greater impairment in self-capacities and more impaired self-capacities are associated with increased trauma symptoms. Despite these results, no studies to date have examined the relation between poly-victimization, self-capacities, and subsequent trauma symptoms.

The present study aims to address several of the limitations of the child maltreatment and poly-victimization literature, as discussed throughout this chapter. The purpose of the present study is two-fold. The first part of this study is to examine the utility of the JVQ in identifying adult poly-victims and explore alternate ways of measuring poly-victimization using the JVQ. As this is a relatively new area, Finkelhor's group (2005a) has expressed the need for further research to examine alternate ways of measuring poly-victimization and provide support for choosing one method over another. Thus far in the literature, the experience of poly-victimization has been conceptualized and measured in a variety of ways. Some researchers (Clemmons et al., 2004; Higgins & McCabe, 2000a; Martsolf et al., 2006) have examined multiple types of victimization (e.g. sexual abuse, physical abuse, neglect). Others (Elliott et al., 2009; Finkelhor et al., 2007a; 2007b; Richmond et al., 2009) have examined multiple acts of victimization (e.g. hit with an object by a known adult, sexually harassed by a peer, raped by a stranger). However, no studies have examined whether the method of conceptualizing or measuring poly-victimization makes a difference in the strength of the observed effects in the variables studied. This study will address this gap in the literature, by examining four

methods of measuring poly-victimization (see Figure 1) using the JVQ, which utilize some combination of either a) continuous (i.e. Continuous Act and Continuous Type) or categorical measurement (i.e. Categorical Type and Categorical Act) and either b) acts of victimization (i.e. Continuous Act and Categorical Act) or types of victimization (i.e. Continuous Type and Categorical Type), and provide suggestions for future researchers. Each of these four methods will be described in detail in the next chapter.

Extensive research has consistently demonstrated that maltreatment in childhood is associated with lower self-esteem and higher endorsement of trauma symptoms in adulthood (Beitchman et al.; Hildyard & Wolfe, 2002; Malinosky-Rummell & Hansen, 1993; Neumann, et al., 1996). In determining which method of measuring poly-victimization best assesses the long-term effects of exposure to poly-victimization, this study utilizes three established measures of psychological distress (i.e., Rosenberg Self-Esteem Scale, Center for Epidemiological Studies – Depression Scale, and Trauma Symptom Checklist-40) which have been used frequently in the child maltreatment literature. These particular outcome measures were chosen because past research has demonstrated a significant relation between scores on these measures and individual types of childhood maltreatment. Based on past findings, I expect that poly-victimization will be similarly significantly associated with psychological distress as measured by these instruments.

The second part of the present study is to provide evidence for a theoretical explanation of why adult survivors of poly-victimization experience increased psychological distress in adulthood. Specifically, this study expands the current

constructivist self-development theory theoretical and empirical literature to include the concept of poly-victimization. As prior research has demonstrated the negative effect of childhood maltreatment on self-capacities in adulthood, it follows logically that experiencing higher levels of maltreatment (i.e. poly-victimization) in childhood will have an even greater negative impact on the development of self-capacities. This study will investigate this hypothesis by examining the relation between poly-victimization and impaired self-capacities.

	Continuous Variable	**Categorical Variable**
Assesses 5 Types	Continuous Type Score ranges from 0-5	Categorical Type <u>Three Groups:</u> No victimization 1 or 2 types of victimization 3+ types of victimization
Assesses 33 Acts	Continuous Act Score ranges from 0-33	Categorical Act <u>Two Groups:</u> Non Poly-victims Poly-victims

Figure 1: Four Different Methods of Assessing Poly-Victimization Created for the Present Study

*Refer to Table 1 for a complete list of the five types and 33 acts of victimization

Table 1
List of Acts of Victimization and Types of Victimization Assessed by the JVQ

33 Acts of Victimization	5 Types of Victimization
Robbery	Conventional Crime
Theft (Steal something from you)	
Vandalism (Break or ruin something of yours)	
Physical Assault with Weapon	
Physical Assault without a Weapon	
Attempted Assault	
Kidnapping	
Bias Attack	
Physical Abuse by Caregiver (not spanking)	Child Maltreatment
Psychological or Emotional Abuse	
Neglect	
Custodial Interference or Family Abduction	
Gang or Group Assault	Peer and Sibling Victimization
Peer or sibling assault	
Nonsexual Genital Assault by peers	
Bullying	
Teasing, Emotional Bullying	
Dating Violence	
Sexual Assault, known adult	Sexual Victimization
Sexual Assault, unknown adult	
Sexual Assault, by peer	
Rape, attempted or completed	
Flashing or Sexual Exposure	
Sexual Harassment	
Witness Domestic Violence	Witness of Indirect Victimization
Witness Physical Abuse of Sibling	
Witness Assault with a Weapon	
Witness Assault without a Weapon	
Burglary of Family Household	
Murder of Family Member or Friend	
Witness to Murder	
Exposure to Random Shootings, Terrorism or Riots	
Exposure to War or Ethnic Conflict	

Given the purposes of the present study, the following hypotheses are provided: Hypothesis 1: Considering the lack of consensus in the literature on how best to conceptualize or measure poly-victimization, several alternate methods of measuring poly-victimization will be explored. It is hypothesized that there will be no significant differences in relations with measures of psychological distress as a function of method of assessing poly-victimization (Figure 1).

a. There will be no difference in the magnitude of association between Continuous Act and depression and the association between Continuous Type and depression.
b. There will be no difference in the magnitude of association between Continuous Act and self-esteem and the association between Continuous Type and self-esteem.
c. There will be no difference in the magnitude of association between Continuous Act and trauma symptomatology and the association between Continuous Type and trauma symptomatology.

Hypothesis 2: Individuals who experience poly-victimization will report significantly greater psychological distress (i.e. depression, low self-esteem, trauma symptomatology) than will non poly-victims.

a. Poly-victims as measured by *Categorical Type* will report greater depression, lower self-esteem, and more trauma symptomatology than will victims of only

one or two types of child maltreatment and individuals with no child maltreatment history.

b. Poly-victims as measured by *Categorical Act* will report greater depression, lower self-esteem, and more trauma symptomatology than will non poly-victims.

Hypothesis 3: Because past research (Brock et al., 2006; Deiter et al., 2000) has identified a significant relation between childhood maltreatment and impaired self-capacities as measured by the IEQ, it is hypothesized that a similar relation will be observed between poly-victimization and impaired self-capacities. Specifically:

a. Participants' poly-victimization score as measured by the *Continuous Act* variable will be positively associated with their impaired self-capacity scores on the Inner Experience Questionnaire.

b. Participants' poly-victimization score as measured by the *Continuous Type* variable will be positively associated with their impaired self-capacity scores on the Inner Experience Questionnaire.

c. Participants classified as poly-victims utilizing the *Categorical Type* poly-victimization variable will report greater impaired self-capacities than will non poly-victims.

d. Participants classified as poly-victims utilizing the *Categorical Act* poly-victimization variable will report greater impaired self-capacities than will non poly-victims.

CHAPTER III

METHODOLOGY

This chapter describes the methodology used to examine several alternatives for measuring poly-victimization utilizing the adult retrospective version of the Juvenile Victimization Questionnaire. Also described is the methodology used to assess the effects of poly-victimization on psychological distress and the development of self-capacities. First, a description of the sample is provided, followed by the data collection procedures. Next the independent and dependent measures are reviewed. Finally, the specific research hypotheses and statistical analyses are described.

Research Design

The research design used in this study was a non-experimental survey with convenience sampling. In order to test the research hypotheses, five measurement instruments and a brief demographic questionnaire were utilized: The Juvenile Victimization Questionnaire (JVQ; Hamby et al., 2005), the Inner Experience Questionnaire (IEQ; Deiter & Pearlman, 1999), the Center for Epidemiological Studies – Depression Scale (CES-D; Radloff, 1977), the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965), the Trauma Symptom Checklist – 40 (TSC-40; Briere & Runtz, 1989), and a brief demographic questionnaire (e.g. age, race/ethnicity, gender, year in school,

relationship status, participant's living situation while growing up, and whether the participant had received psychotherapy or psychiatric treatment).

Participants and Procedure

In discussing the pros and cons of using self-report questionnaires to retrospectively assess a history of child maltreatment, Hulme (2004) suggested that young adults may have a better chance of accurately recalling past childhood abuse due to relative recency of the events. Therefore, undergraduate students aged 18 – 24 were the target population for this study. Participants for this study were recruited from three different universities. All three universities were public institutions. Two were large universities located in primarily urban settings; one in the Midwest and one in the Mid-Atlantic region. The third university was a mid-sized university located in a rural setting in the Southeastern U.S. Participants were eligible to participate in this study if they were currently enrolled in an undergraduate college course, were between the ages of 18 and 24, and had access to a computer.

The informed consent form (Appendix A), debriefing form (Appendix B), and all independent and dependent measures (Appendices C-H) were converted into electronic format and entered into Survey Monkey for ease of recruiting a large number of participants from multiple locations. Undergraduate students from the first university were recruited through the Psychology department's Human Participation in Research website. Participants from the second university were recruited through an email invitation to participate in the study distributed by colleagues of the researcher. This email included a brief description of the study and a link to the survey on Survey

Monkey. Participants from the third university were recruited through the Psychology department's research website as well as through email invitation. Participants recruited through the Psychology departments' research websites were offered extra credit for their participation in this study. Participants recruited through email invitation were offered entrance into a drawing for a $100 gift card as incentive for their participation in this study. Prior to data collection, approval from the University of Akron Institutional Review Board (IRB) was obtained for the proposed research.

A total of 877 individuals visited the online survey. Of these 877 individuals, 785 completed the survey, resulting in a completion rate of 89.5%. Individuals who failed to complete all measures (N=20) or skipped large portions of a single measure (i.e. five or more consecutive items; N=20) were excluded from the analyses. Participants who did not report their age or were outside the age restriction parameters (i.e., under 18 or over 24 years of age) were also excluded (N=7). This resulted in a final sample size of 738. Pre-analysis screening conducted on this final sample indicated that some of the items had missing values, ranging from 1 to 12 per variable. Because the missing data accounted for less than 2% of cases and appeared to be random, mean values based on the current sample were used to replace the missing data (Tabachnick & Fidell, 2006). All data were screened for normality, outliers, missing data, linearity, and homoscedasticity.

Demographics

Demographic characteristics of the sample are displayed in Table 2. The sample consisted of 569 women (77.1%) and 164 men (22.2%). Five participants did not report

their biological sex. The mean age of the current sample was 19.4 (*SD* = 1.6). The median age was 19, ranging from 18 to 24.

Table 2
Demographic Characteristics (N=738)

Variable	N	Percentage
Sex		
Male	164	22.2%
Female	569	77.1%
Academic Standing		
1st year	333	45.1%
2nd year	104	14.1%
3rd year	118	16.0%
4th year	146	19.8%
5th year or higher	36	4.9%
Ethnicity		
Caucasian	639	86.6%
African American	30	4.1%
Asian/Pacific Islander	9	1.2%
Hispanic/Latino/Chicano	26	3.5%
American Indian	3	0.4%
Biracial/Multiracial/Other	31	4.2%
Relationship Status		
Single	329	44.6%
Dating, Not living Together	319	43.2%
Living Together	56	7.6%
Married	24	3.3%
Separated	6	0.8%
Parents Divorced		
Yes	232	31.4%
No	504	68.3%
Death of Parent		
Yes	42	5.7%
No	696	94.3%
Financial Status		
Better Off	192	26.0%
Average	470	63.7%
Worse Off	75	10.2%

Table 2
Demographic Characteristics Continued

Family Conflict		
None	129	17.5%
A Little	260	35.2%
Some	211	28.6%
A Lot	137	18.6%
Psychotherapy		
Yes	180	24.4%
No	557	75.5%

**Due to missing data, all percentages do not add up to 100%

Participants were asked to self-report their racial/ethnic identity. The majority of participants identified as Caucasian (86.7%), followed by African American (4.1%), Asian/Pacific Islander (3.7%), Hispanic/Latino/Chicano (1.5%), and American Indian (0.4%). Additionally, 30 (4.1%) participants identified themselves as Biracial/Multiracial or Other.

Participants were asked to report their current educational standing. Approximately 45% of participants (N=333) were first-year undergraduate students, 14.1% (N=104) were second-year students, 16% (N=118) were third year students, 19.8% (N=146) were fourth year students, and 4.9% (N=36) were fifth year or higher undergraduate students. One participant did not report his educational status. Participants were also asked to report their current relationship status. The majority of participants were Single (44.6%). Approximately 43% were Dating but not living together; 7.6% were Living Together; 3.3% were Married; and less than 1% were separated. No participants reported being Divorced or Widowed.

Measures

Demographics Questionnaire (See Appendix C)

A demographic questionnaire was developed for the purpose of this study. Information requested included questions about background factors such as age, gender, academic standing, ethnicity, relationship status, highest level of education completed by the participant's mother and father, participant's living situation while growing up, and whether the participant had received psychotherapy or psychiatric treatment. Also included were seven questions drawn from Sachs-Ericsson, Blazer, Plant and Arnow (2005), assessing divorce, death of a parent, who the major financial supporter in the household was, financial status growing up, and presence or absence of family conflict and tension. These latter seven questions were included because past research has found that family conflict and tension (Higgins & McCabe, 2000a; 2000b; Higgins et al., 2003), and other family living situations (e.g. death of parent, divorce, financial difficulty; Finkelhor et al., 2005a) may affect psychological adjustment in adulthood and are valid control variables to include in research on child maltreatment.

Juvenile Victimization Questionnaire – Adult Retrospective Version (JVQ; Hamby et al., 2005; See Appendix D).

The JVQ manual (Hamby et al., 2005) details the extensive process that was employed to develop the final version of the self-administered questionnaire. A brief overview of this process is provided here. More detailed information is available in the JVQ Manual. In order to develop the items and subscales of the JVQ, the authors first consulted numerous victimization professionals to review and critique these potential

items. Researchers at the Family Research Laboratory and Crimes Against Children Research Center, and several academicians from various universities were asked to review the items of the JVQ and comment on each item's conceptual integrity as well as the degree to which each item was developmentally appropriate for use with child samples. Once this feedback was incorporated and the JVQ items revised accordingly, Hamby's group conducted focus groups with parents and teens to assess the readability and comprehension of the items by individuals outside of the victimization and criminal justice fields. Once a sufficient draft of the JVQ had been constructed, the researchers conducted several focus groups with parents – one group for each of the victimization subscales (i.e. conventional crime, child maltreatment, sexual victimization, peer and sibling victimization, and witnessing or indirect victimization). After the questionnaire was revised based on feedback from the parent focus groups, three focus groups were conducted with teens to further assess the readability and understandability of the questionnaire wording. Changes to the wording were made based on this feedback, and the final version of the JVQ was constructed.

The JVQ is a self-report measure that retrospectively assesses 33 different acts of victimization one can experience in childhood. Each act described throughout this section represents one item on the JVQ. The 33 acts are organized into one of five different subscales: conventional crime, child maltreatment, peer and sibling victimization, sexual victimization, and witnessing or indirect victimization. See Table 1 for a listing of the 33 individual acts of victimization and the five subscales of victimization each act falls under. It is important to note that the original JVQ consisted

of 34 items and thus several studies cited throughout this chapter and the previous chapter reference 34 acts of victimization. However, Finkelhor and colleagues have since removed the 34th item which addressed consensual sexual activity with someone aged 18 or older (i.e. statutory rape) because there was debate concerning whether or not it represented an actual "victimization" due to the fact that it reflected voluntary behavior (D. Ormrod; personal communication, March 1, 2006). Therefore the current version of the JVQ utilized for the present study consists of 33 items.

The Conventional Crime subscale includes victimizations that parallel the offenses defined and measured by the U.S. Federal Government in the National Crime Victimization Survey. This subscale consists of eight acts of victimization: robbery, personal theft, vandalism, assault with a weapon, assault without a weapon, attempted assault, kidnapping, and bias attack. The Child Maltreatment subscale contains acts intended to parallel offenses of concern to child protection agencies. This subscale is shorter than the others, consisting only of four acts of victimization: physical abuse by a caregiver, psychological or emotional abuse, neglect, and custodial interference or family abduction. The Peer and Sibling Victimization subscale consists of six acts of victimization that are generally considered to commonly occur in childhood. This subscale includes gang or group assault, peer or sibling assault, nonsexual genital assault, bullying, emotional bullying, and dating violence. The Sexual Victimization subscale was developed to include reports of intimate, statutory, and other kinds of sexual offenses, as well as forced physical attacks. This subscale consists of six acts of victimization: sexual assault by a known adult, nonspecific sexual assault, sexual assault

by a peer, rape – attempted or completed, flashing or sexual exposure and verbal sexual harassment. The final subscale is the Witnessing and Indirect Victimization subscale which addresses offenses against others which can have psychological impact on children as well as direct victimizations. This subscale includes nine acts of victimizations: witness to domestic violence, witness to parent assault of sibling, witness to assault with a weapon, witness to assault without a weapon, burglary of family household, murder of family member or friend, witness to murder, exposure to random shootings, terrorism or riots, and exposure to war or ethnic conflict.

Respondents were asked to report the number of times they had experienced each act of victimization from the time they were born until 17 years of age on a 6-point scale (No, 1 time, 2 times, 3 times, 4 times, or 5 or more times). The present study created two types of scores based on the participants' responses to each act of victimization. The first score was a dichotomous Yes/No score. Specifically, participants' responses were dichotomously scored as either "yes, they experienced the act of victimization" or "no, they did not experience the act of victimization," regardless of the number of times the victimization was experienced. For example, for the question "When you were a child, did anyone hit or attack you without using an object or weapon," if the participant answers "No" then he was dichotomously classified as not experiencing this act of victimization and received a score of 0 for this act . If the participant responded "1 time" or more to this item, he was dichotomously categorized as having experienced this act of victimization and received a score of 1 for this act. Thus each participant received a

dichotomous score of 0 or 1 for each of the 33 acts of victimization. This scoring method is the same as the Screener Sum method described by Finkelhor et al. (2005a).

The second type of score that was created was also a dichotomous score, but differed from the previous score because it utilized sample means. A sample mean for each act of victimization was calculated to determine how often, on average, the sample was exposed to each act of victimization. This mean score was used as a cutoff to determine which participants were classified as having experienced each act of victimization. More specifically, those individuals who scored above the sample mean for a particular victimization were coded as having experienced that victimization. Those individuals scoring below the mean were coded as not having experienced that victimization. Again, each participant received a dichotomous score of 0 or 1 for each of the 33 acts of victimization. This scoring method is the same as the method described by Higgins and McCabe (2000a). There has been discussion in the child maltreatment literature regarding whether the frequency or severity of maltreatment should be considered when classifying individuals as having experienced various acts of maltreatment. By creating both types of scores, the present study examined whether one method of scoring was more effective in measuring the long-term effects of poly-victimization than the other.

This section has provided a brief overview of the construction of the JVQ, the five subscales, and two scoring methods for the 33 individuals items/acts listed on the JVQ. The next section reports the existing psychometric data for the JVQ.

Reliability and Validity

Although the present study focuses exclusively on the adult retrospective version, the majority of the poly-victimization research using the JVQ has been conducted with child and youth samples. To date only two studies have utilized the adult retrospective version of the JVQ, and neither study provides significant information on the psychometric properties of the JVQ. As such the following is an overview of the JVQ psychometric research utilizing a child and youth sample.

Finkelhor, Hamby, et al. (2005) assessed the reliability and validity of the JVQ in a randomly obtained national sample of 2,030 children ages 2-17. In order to assess the construct validity of the JVQ, Finkelhor's group (2005) wanted to determine whether their assessment tool produced "results expected by theory or previous research" (p. 396). More specifically, given the strongly supported relation between childhood victimization and trauma-related symptomatology, the researchers utilized Briere's (1996) Trauma Symptom Checklist for Children (TSCC) and Trauma Symptom Checklist for Young Children (TSCYC) in order to examine the associations between item endorsement on the JVQ and scores on these outcome measures. Results showed significant weak to moderate bivariate correlations between each of the five victimization subscales and the Anxiety, Depression, and Anger subscales scores of the TSCC (ranging from .20 to .35) and TSCYC (ranging from .07 to .31). Significant correlations were also observed between most of the 34 individual acts of victimization and scores on the trauma symptom subscales. The researchers reported that those individual items that failed to achieve a significant correlation with trauma-related symptoms were primarily

the items with the lowest endorsement rates (e.g. exposure to war or ethnic conflict; kidnapping; witness to murder). In general, the associations observed between reports of childhood victimization and trauma-related symptoms in this study were similar to those reported for community samples in the child victimization literature. The researchers noted that stronger correlations would be expected in a more clinical sample of children.

To assess the test-retest reliability of the JVQ, Finkelhor and colleagues (2005) selected 200 participants (100 caregivers and 100 youth respondents) to be re-administered the JVQ 3-4 weeks after the original administration. A 95% agreement was observed for the endorsement of the individual items for both self-reporting youth (range 77-100%) and caregivers (range 80-100%). The researchers considered kappas (*k's*) of .40-.75 to be fair to good, while above .75 was excellent and below .40 was poor. Overall, the mean *k* was .59, with a range of .22 to 1.00. Although most of the observed *k's* for the individual items fell in the fair to good range, there were several items that showed poor test-retest reliability. Moreover, analyses showed that participants endorsed 28% fewer individual items on the second administration compared with the original. Although the researchers provided possible explanations for their findings (see Finkelhor, Hamby, et al., 2005), more research is needed to further determine the test-retest reliability of the JVQ.

Finally, Finkelhor's group examined the internal consistency reliability of the JVQ. The Cronbach alpha for the 34-item JVQ as a whole was .80. The researchers also reported respective alphas for four of the five subscales. The alpha for the Witnessing or Indirect Victimization subscale was not included in the data reported and the authors did

not offer a reason for why this was left out. The alphas for the remaining subscales ranged from weak to moderate (.39 to .61); however the authors suggested that this is likely a result of the number of items that make up each subscale. The sexual victimization, conventional crime, and peer/sibling victimization subscales which were comprised of the most acts (7, 8, and 9, respectively), had the highest alphas (.51, .61, and .55, respectively). The child maltreatment subscale comprised of only four acts yielded a lower alpha (.39). Regardless of the number of acts, the alphas for these four subscales were lower than desired (e.g. alphas > .70 are considered adequate; Pedhazur & Schmelkin, 1991). The alpha coefficients for the present study were as follows: whole JVQ (.87), conventional crime (.76), child maltreatment (.63), peer and sibling victimization (.56), sexual victimization (.64), and witness or indirect victimization (.63). These data demonstrate a significant limitation of the JVQ that needs to be addressed in future research.

Scoring Methods for Assessing Poly-Victimization

As discussed earlier in Chapters 1 and 2, researchers have defined and measured poly-victimization in several different ways and there currently is no empirical evidence to suggest which method of measuring poly-victimization, if any, best captures the long-term effects of experiencing multiple victimizations. One of the primary purposes of the present study was to explore several different ways to measure poly-victimization and determine which measure accounts for the most variance in scores on a variety of outcome measures. A major difference in the various variables created to assess poly-victimization is the use of *acts* of victimization (Finkelhor, Ormrod, et al., 2005a;

Finkelhor et al., 2007a) versus *types* of victimization (Higgins & McCabe, 2000a). The present study created four different poly-victimization variables utilizing both specific *acts* and broader *types* of victimization to comprise the measures of poly-victimization. This section describes each of the four poly-victimization variables (listed in Figure 1, see page 82) that were created.

The first variable was a continuous poly-victimization score based on individual *acts* of victimization. In order to calculate the **Continuous Act** poly-victimization variable, the number of victimizations dichotomously coded as a "1" (i.e. they experienced the act of victimization) were summed to yield the participant's Continuous Act poly-victimization score. Scores could range from 0 to 33. Higher scores indicate exposure to a greater number of acts of victimization.

The second variable was a continuous poly-victimization score based on the general *types* of victimization. Respondents were first classified as either having experienced a particular type of victimization (i.e. conventional crime, sexual victimization, child maltreatment, peer and sibling victimization and witness/indirect victimization) or not. If the respondent received a score of “1” (i.e. they experienced the act of victimization) in response to at least one of the acts making up a victimization subscale, he was coded as having experienced that type of victimization. If the respondent answered “No” in response to all acts that makes up a victimization subscale, he was coded as not having experienced that type of victimization. The number of types of victimization endorsed by each respondent were summed to yield a **Continuous Type**

poly-victimization score. Scores could range from 0 to 5 with higher scores indicating exposure to more types of victimization.

Higgins and McCabe (2000a) utilized subscale means to dichotomously classify victims of poly-victimization as those individuals who reported experiencing three or more types of victimization. Following this example, a third poly-victimization variable was created. A mean victimization subscale score was calculated for each of the five JVQ subscales. Respondents scoring higher than the mean on three or more subscales were categorized as poly-victims. Respondents scoring higher than the mean on one or two subscales were simply categorized as child maltreatment victims. Respondents who did not score higher than the mean on any of the subscales were categorized into the no maltreatment group. Analyses were conducted to determine if differences existed between these three groups in scores on several outcome measures. This variable was called the **Categorical Type** poly-victimization variable.

In a recent article, Finkelhor, Ormrod, and Turner (2009) suggested establishing a poly-victimization threshold by identifying the most extreme 10% of a sample as poly-victims. Therefore the fourth and final poly-victimization variable, **Categorical Act**, was created by determining how many acts of victimization the top 10% of the present sample experienced and classifying those individuals who experienced that many victimizations or greater as poly-victims.

This section has described the four poly-victimization variables that were created using the JVQ in the present study. Some of these variables are the same as those used in previous studies (i.e. Categorical Type, and Continuous Act variables) and some of the

variables are unique to the present study (i.e. Categorical Act and Continuous Type variables).

Inner Experience Questionnaire (IEQ; Deiter & Pearlman, 1999; See Appendix E).

Given the proposed relation between a history of childhood maltreatment and the development of impaired self-capacities, Deiter and Pearlman (1999) developed the Inner Experience Questionnaire (IEQ) to assist researchers in examining this hypothesized relation. At the time that the IEQ was developed, no measure of self-capacities existed (Brock et al., 2006). Therefore, the items of the IEQ were developed by clinicians who were familiar with constructivist self-development theory (CSDT) and who also had considerable experience working with adult survivors of childhood maltreatment. These clinicians were asked to generate statements which represented clients' perceptions in each of the three self-capacities proposed by CSDT: affect tolerance, self-worth, and inner connection (Brock et al.). After statements were generated, a separate set of psychotherapists with experience in CSDT and treating adult survivors of childhood maltreatment were recruited and asked to assign each of the statements to one of the three self-capacities. Only those items that attained 100% agreement for assignment to one, and only one, self-capacity were included on the final measure (Brock et al.).

The IEQ is a 24-item self-report measure designed to measure disruptions in three self-capacities: affect tolerance, self-worth, and inner connection. Participants were asked to indicate their level of agreement with each of the 24 statements on a six-point Likert scale ranging from 1 (disagree strongly) to 6 (agree strongly). Scores on the IEQ can either be summed into three subscale scores, one for each self-capacity, or summed

into a total score. Examples of items on the IEQ include "I know my feelings will not destroy me" (affect tolerance subscale); "I deserve to be loved" (self-worth subscale); and "Knowing someone loves me comforts me" (inner connection subscale). Some of the items on the IEQ are reverse-scored. The total mean and mean subscale scores can range from 1 to 6, with higher scores indicating greater impairment in self-capacities.

When examining the internal consistency of the IEQ, Brock et al. (2006) found high intercorrelations between the three subscales (all greater than .66). Given this the researchers suggested that utilizing an overall mean score based on all 24 items of the IEQ, instead of the individual subscale scores, may be more beneficial to test the reliability and validity of the IEQ until the factor structure of the IEQ could be re-examined. Therefore, the reliability and validity data discussed next utilized the overall mean score for the IEQ. It should be noted that prior to using this measure in the analyses, the present study examined both a three-factor structure and a one-factor structure with the IEQ items to determine which model best fit the data and was most appropriate for subsequent interpretation. These results are discussed in the next chapter.

The IEQ is a relatively newer measure with little psychometric data available. Initial studies have found adequate internal consistency for the IEQ across several populations including psychotherapy outpatients (Cronbach's alpha = .93), partial hospitalization patients (Cronbach's alpha = .92), lesbian, gay, and bisexual youth (Cronbach's alpha = .90), and heterosexual youth (Cronbach's alpha = .91) (Brock et al., 2006). The construct validity of the IEQ was examined by analyzing the relation between a history of childhood maltreatment and scores on the IEQ. Brock's group

found that outpatient participants' scores on the IEQ were significantly positively correlated with emotional abuse (r=.29, p <.01), physical abuse (r=.33, p <.01), sexual abuse (r=.21, p <.05), emotional neglect (r=.35, p <.05), and physical neglect (r=.31, p <.01). LGB participants' scores on the IEQ were significantly positively correlated with sexual abuse (r=.15, p <.01), punishment (r=.25, p <.01), and neglect/negative home environment (r=.38, p <.01). These modest correlations provide preliminary support for the construct validity of the IEQ when using the overall mean score to represent the level of impairment in one's self-capacities. The internal consistency of the IEQ as a whole and the three individual subscales was assessed using Cronbach's alpha in the present study. Results showed good internal consistency for the IEQ as a whole (α=.93), as well as for the three subscales: affect tolerance (α=.81), self-worth (α=.85), inner connection (α=.81).

Center for Epidemiological Studies – Depression Scale (CES-D; Radloff, 1977; See Appendix F).

The CES-D is a 20-item self-report questionnaire that assesses the frequency and duration of symptoms associated with depression. This scale was developed for use with the general population and is designed to measure current level of depressive symptomatology (Radloff, 1977). Respondents were asked to indicate how frequently they experienced each of 20 symptoms during the past week on as scale of 0 (Rarely or None of the time, less than one day) to 3 (Most of all of the time, 5-7 days out of the week). Several of the items are reverse-scored. A total score was calculated by summing

the score for the 20 items and ranged from 0 to 60, with higher scores suggesting higher levels of depression.

The CES-D has demonstrated adequate reliability and validity with a variety of different populations. In the original study, Radloff (1977) reported adequate internal consistency for the CES-D with coefficient alphas ranging from .85 in the general population to .90 in a psychiatric patient sample. To examine the validity of the CES-D, Radloff compared scores on the CES-D with scores on other self-report affective measures (see Radloff, 1977 for a list of measures). Statistically significant positive correlations were observed in the general population samples (*r*s ranged from .43 to .63) and the psychiatric patient sample (*r*s ranging from .55 to .74), supporting the construct-related validity of the CES-D. Scores measuring a construct such as "current level of depressive symptomatology" are expected to vary somewhat over time in the same individual given the variable nature of affective reactions to real life stimuli and events (Radloff). As expected, moderate test-retest correlations were observed for the CES-D across several samples (ranging from .32 to .67), with shorter intervals (e.g. weeks) yielding higher correlations (range from .51 to .67) compared with greater intervals of time (e.g. months; range from .32 to .54).

More recent studies have also found the CES-D to have acceptable reliability. In a study of African American women, Cronbach's alpha was .89 (Makambi, Williams, Taylor, Rosenberg, & Adams-Campbell, 2009). Makambi's group also examined the reliability of the CES-D, by dividing the instrument in half and examining the Guttman's split-half coefficient. Results demonstrated adequate reliability for Makambi's sample,

yielding a Guttman's split-half coefficient of .89 The CES-D has been used widely in the childhood maltreatment literature. Adequate internal consistency has also been observed for the CES-D when used to study the long-term effects of child abuse (Cronbach's alpha = .86) (Arata et al., 2005). Similar internal consistency was observed in the present study (α=.89).

Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965; See Appendix G).

The Rosenberg SES is a 10-item self-report measure of global self-esteem. Participants were asked to respond to ten statements related to overall feelings of self-worth or self acceptance. For example, "On the whole, I am satisfied with myself." Each item is scored on a four-point Likert scale ranging from 0 (Strongly Disagree) to 3 (Strongly Agree). Several of the items are reverse-scored. A total score, ranging from 0 to 30, was calculated by summing the scores for each of the ten items. Higher scores indicated higher self-esteem.

The RSES was originally developed with a sample of 5,024 high school juniors and seniors from ten different high schools, and demonstrated adequate psychometric data (Rosenberg, 1986). Specifically, test-retest reliability correlations were favorable ranging from .82 to .88, and internal consistency as measured by Cronbach's alpha was adequate, ranging from .77 to .88 (Rosenberg, 1986). Kurpius, Payakkakom, Rayle, Chee and Arredondo examined the reliability of the RSES across several different ethnic groups of college freshmen. The researchers found adequate internal consistency as determined by Cronbach's alpha with European American (.86), Latino/a (.83), and Native American (.77) college freshmen. The RSES has also been shown to have

adequate internal consistency when used to examine the long-term effects of child maltreatment with college students (Cronbach's alpha =.88) (Arata et al., 2005). Past research has found that experiencing childhood maltreatment (i.e. sexual abuse, physical abuse, psychological maltreatment, and neglect) accounts for a significant proportion of variance (13%) in self-deprecation as measured by scores on the RSES (Higgins & McCabe, 2000a). The data in the present study demonstrated good internal consistency for the RSES (α=.92).

Trauma Symptom Checklist – 40 (TSC-40; Briere & Runtz, 1989; See Appendix H).

The TSC-40 is a 40-item self-report measure designed to assess symptomatic distress in adults stemming from traumatic experiences occurring in either childhood or adulthood. This measure was designed by Briere and Runtz specifically for research purposes to measure some aspects of posttraumatic stress and additional symptoms observed in traumatized individuals. The TSC-40 yields a total score (ranging from 0 to 120) and six subscales scores: Anxiety, Depression, Dissociation, Sexual Abuse Trauma Index, Sexual Problems, and Sleep Disturbance. Respondents are asked to report the frequency with which they have experienced each symptom during the previous two months on a 4-point Likert scale ranging from 0 (never) to 3 (often). For the total score, as well as each of the six subscales, higher scores indicate greater distress.

The psychometric properties of the TSC-40 have been evaluated across several different populations. In general, the subscales of the TSC-40 demonstrate moderate internal consistency (alphas ranging from .66 to .77) and the total score has shown adequate reliability across studies with alphas ranging from .89 to .91 (Briere, 1996).

The TSC-40 is widely used as an outcome measure in the child maltreatment literature. Across studies, significant relations have been observed between scores on the TSC-40 and various types of child abuse (Elliott & Briere, 1992). Depending upon the study and measure of child abuse that was utilized, correlations between the various types of child abuse and trauma symptomatology as measured by the TSC-40 ranged from .29 to .54 (Clemmons et al., 2007; Dunn, Ryan, & Dunn, 1994; Martsolf et al., 2004). In general, individuals with a history of child maltreatment score higher on the TSC-40 subscales and score higher on the TSC-40 as a whole than do individuals without a history of child maltreatment (Clemmons et al., 2007; Martsolf et al., 2004, Zlotnick, Shea, Begin, Pearlstein, Simpson, & Costello, 1996). Higgins and McCabe (2000a) found that child maltreatment accounted for 27% of the variance in trauma symptomatology as measured by the TSC-40. The present study will only utilize the TSC-40 total score. Cronbach's alpha indicated good internal consistency for the present data (α=.93).

Hypotheses and Statistical Analysis

For each of the research hypotheses, specific statistical analyses are stated below. Preliminary analyses first examined the descriptive data regarding demographics and childhood victimization. Next, the proposed factor structure of the Inner Experience Questionnaire was examined. Specifically, a 3-factor Confirmatory Factor Analysis (CFA) and a 1-factor CFA were conducted and the fit indices examined to determine which factor structure best fit the data. These results determined whether three individual self-capacity subscales scores or a total self-capacity score were used in the analyses for Hypothesis 3. Results are discussed in the next chapter.

Hypothesis 1: There will be no significant differences in relations with measures of psychological distress as a function of method of assessing poly-victimization (see Figure 1, p. 82).

H1a: There will be no statistically significant difference between the correlation between the *Continuous Act* score and the CES-D depression score and the correlation between the *Continuous Type* score and the CES-D depression score. This hypothesis will be tested using Fisher's Z test.

H1b: There will be no statistically significant difference between the correlation between the *Continuous Act* score and the RSES self-esteem score and the correlation between the *Continuous Type* score and the RSES self-esteem score. This hypothesis will be tested using Fisher's Z test.

H1c: There will be no statistically significant difference between the correlation between the *Continuous Act* score and the TSC-40 trauma symptomatology score and the correlation between the *Continuous Type* score and the TSC-40 trauma symptomatology score. This hypothesis will be tested using Fisher's Z test.

Hypothesis 2: Individuals who experience poly-victimization will report significantly greater psychological distress (i.e. depression, low self-esteem, trauma symptomatology) than will non poly-victims.

H2a: A MANOVA will indicate that statistically significant ($p<.05$) differences in depression, self-esteem, and trauma symptomatology scores exist between the

three maltreatment groups (i.e. non-maltreatment, child maltreatment, and poly-victimization) as measured by *Categorical Type* scores. Planned comparisons analyzed with Tukey's HSD test will demonstrate that poly-victims report greater depression and trauma symptomatology and lower self-esteem than do child maltreatment victims, and non-maltreated individuals. These results will be statistically significant at the $p<.05$ level.

H2b: A MANOVA will demonstrate that poly-victims report greater depression and trauma symptomatology and lower self-esteem than do non poly-victims as measured by *Categorical Act* scores. These results will be statistically significant at the $p<.05$ level.

Hypothesis 3: Given the significant relation between childhood maltreatment and impaired self-capacities it is hypothesized that a history of poly-victimization will be associated with impairment in participants' self-capacities.

A. For the continuous poly-victimization variables significant correlations between the poly-victimization variables and scores on the IEQ will be observed. Specifically:

    H3-a1: The correlation between *Continuous Act* scores and IEQ self-capacity scores will indicate a positive relation and will be statistically significant at the $p <.05$ level.

H3-a2: The correlation between *Continuous Type* scores and IEQ self-capacity scores will indicate a positive relation and will be statistically significant at the $p < .05$ level.

B. For the categorical analyses, a t-test and an ANOVA will be performed to determine whether poly-victims report greater impairment in self-capacities than non-poly-victims. Specifically:

H3-b1: A one-way ANOVA will indicate that a statistically significant ($p < .05$) difference in self-capacity scores on the IEQ exists between the three maltreatment groups (i.e. non-maltreatment, child maltreatment, and poly-victimization) as measured by *Categorical Type* scores. Planned comparisons analyzed with Tukey's HSD test will demonstrate that poly-victims report greater impaired self-capacities than do child maltreatment victims, and non-maltreated individuals. These results will be statistically significant at the $p < .05$ level.

H3-b2: An independent groups t-test will indicate that poly-victims as measured by *Categorical Act* report greater impairment in self-capacities as measured by scores on the IEQ than will non poly-victims. These results will be statistically significant at the $p < .05$ level.

CHAPTER IV

RESULTS

This chapter presents the results of the study. First, the coding of the Juvenile Victimization Questionnaire (JVQ) items is explained. Second, the descriptive statistics relating to the victimization experiences of the sample are presented. Third, the descriptive statistics of the poly-victimization variables and outcome variables are described. Finally, the results of the statistical analyses examining the study hypotheses are discussed.

Coding of the JVQ Items

To create the four poly-victimization variables described in the preceding chapter (Continuous Type, Continuous Act, Categorical Type, and Categorical Act), responses to the 33 acts of victimization assessed by the JVQ were dichotomously coded using two different methods. First, participants were coded as having experienced the victimization based on their raw self-reported frequencies (Finkelhor et al., 2005a). Specifically if a participant answered "No" to the JVQ item they were classified as not experiencing that act of victimization. If a participant responded "1 time" or greater they were classified as having experienced that act of victimization. The second way of dichotomously coding the JVQ items utilized sample means (Higgins & McCabe, 2000a).

Specifically, the sample mean for each of the 33 JVQ items was calculated and individuals who reported a frequency higher than the mean were classified as having experienced that act of victimization whereas individuals reporting a frequency less than the mean were classified as not experiencing the victimization. For example, the sample mean for Bullying was 1.72 which was rounded up to 2 (the next highest whole number that participants could report). If an individual reported experiencing bullying 3 or more times they were dichotomously coded as experiencing bullying. However if the person only experienced bullying one or two times they were classified as not experiencing bullying. The logic behind this second method of coding was to account for severity when coding participants as victims of certain acts of victimization. As discussed in the previous chapter, some may argue that certain acts of victimization are "less severe" or more common than others, therefore utilizing the sample means as cut-offs attempts to take into account the severity with which the sample as a whole experienced each act of victimization (Higgins & McCabe, 2000a).

To determine whether the results of this study would differ based on the method of coding used (i.e. whether or not severity was accounted for), the poly-victimization variables were created utilizing both Finkelhor et al.'s (2005) and Higgins and McCabe's (2000a) methods of coding for the JVQ items. The statistical analyses for the study hypotheses were run using both types of poly-victimization variables. Results showed that the poly-victimization variables created with each method were highly correlated (*r*s >.90). For example, the Pearson correlation coefficients between the poly-victimization variable "Continuous Type" (described in the previous chapter) created with Finkelhor et

al.'s method and the Continuous Type variable created with Higgins and McCabe's method was $r = .945$. The correlations, MANOVAs, ANOVA, and t-test required for the three hypotheses were run using the poly-victimization variables created with both methods to explore whether one of way coding the JVQ data was more effective. No significant differences were observed in the statistical outcomes of these analyses based on whether the Finkelhor et al. method or the Higgins and McCabe method was used to code the JVQ items. In other words, comparable levels of statistical significance were achieved using poly-victimization variables created with both methods of coding. Therefore, because the method of coding the JVQ items did not statistically effect the results of this study, only the results using the more stringent method (i.e. the Higgins and McCabe method utilizing sample means) will be reported throughout the rest of this chapter.

Descriptive Statistics

As stated previously, four poly-victimization variables (Continuous Act, Continuous Type, Categorical Act and Categorical Type) were created to try and identify which way of measuring poly-victimization, if any, was most effective in examining the long-term effects of poly-victimization. The next two sections provide some descriptive information for these variables.

Victimization Descriptives

In this section the victimization experiences of the study sample are described using the Continuous Act and Continuous Type variables. The Continuous Act variable assessed how many individual acts of victimization (33 possible) an individual had

experienced. In this sample of 738 undergraduate students, the average number of acts of victimization experienced was 6.04 (SD=4.98), with a median of 5, mode of 2 and range of 0 to 28 victimizations. Table 3 details the percentage of participants who experienced each act of victimization. The Continuous Type variable assessed how many different types of victimization (5 possible) an individual had experienced. In the present sample the average number of types of victimization experienced was 2.77 (SD=1.55), with a median of 3, a mode of 4, and a range of 0 to 5 types. Frequencies indicating what percentage of participants experienced each type, as well as how many types of victimization, are presented in Tables 4 and 5.

Poly-victimization Descriptives

Two variables, Categorical Act and Categorical Type, were created to identify which participants should be categorized as poly-victims. This section reports the percentage of participants identified as poly-victims using each variable.

The Categorical Act variable classified participants into groups based on the number of individual acts of victimization they experienced. Using the logic put forth by Finkelhor et al. (2009), a poly-victimization threshold was determined utilizing the most extreme 10% of the sample to classify participants into groups. Descriptive analyses determined that 88.3% of the sample experienced 12 or fewer acts of victimization and 11.7% experienced 13 or more acts of victimization. Therefore 652 participants were classified as non poly-victims and 86 participants were classified as poly-victims using the Categorical Act variable.

Table 3
Frequency Table for the 33 Acts of Victimization of the JVQ

Victimization Type	N	% of sample
Robbery	287	38.9%
Theft	282	38.2%
Vandalism	311	42.1%
Assault with a weapon	131	17.8%
Assault without a weapon	260	35.2%
Attempted assault	105	14.2%
Kidnap, attempted or completed	49	6.6%
Bias Attack	44	6.0%
Physical Abuse (not spanking)	120	16.3%
Emotional or Psychological Abuse	172	23.3%
Neglect	59	8.0%
Custodial Interference or Family Abduction	94	12.7%
Gang or Group Assault	43	5.8%
Peer or sibling assault	317	43.0%
Nonsexual Genital Assault	124	16.8%
Bullying	244	33.1%
Teasing, emotional bullying	255	34.6%
Dating violence	92	12.5%
Sexual Assault, known adult	36	4.9%
Sexual Assault, unknown adult	18	2.4%
Sexual Assault, with peer	129	17.5%
Rape, attempted or completed	114	15.4%
Flashing or sexual exposure	106	14.4%
Sexual harassment	104	14.1%
Witness domestic violence	118	16.0%
Witness physical abuse	104	14.1%
Witness assault with a weapon	109	14.8%
Witness assault without a weapon	258	35.0%
Burglary of Household	193	26.2%
Someone close murdered	68	9.2%
Witness murder	15	2.0%
Exposure to shooting, bombs, riots	90	12.2%
Exposure to war	9	1.2%

**Note these percentages do not add up to 100% because the 33 acts of victimization are not mutually exclusive

Table 4
Percentage of Participants Experiencing Each Type of Victimization

Type of Victimization	N	Percentage
Conventional Crime	537	72.8%
Child Maltreatment	268	36.3%
Peer and Sibling Victimization	507	68.7%
Sexual Victimization	279	37.8%
Witness or Indirect Victimization	452	61.2%

**Note these percentages do not add up to 100% because the 5 types of victimization are not mutually exclusive

Table 5
Number of Types of Victimization Experienced by the Sample (N=738)

Number of Types	N	Percentage
Zero Types	68	9.2%
One Type	113	15.3%
Two Types	131	17.8%
Three Types	152	20.6%
Four Types	158	21.4%
Five Types	116	15.7%

The Categorical Type variable classified participants into groups based on the number of types of victimization they experienced. Using Higgins and McCabe's (2000a) method of calculating subscale mean scores, participants were classified into one of three groups: no maltreatment (i.e. did not score higher than the mean on any victimization subscales); child maltreatment (experienced 1 or two types of victimization) and poly-victimization (experienced 3 or more types of victimization). Thus, 235 participants (31.8%) made up the no maltreatment group, 268 participants (36.3%) made up the child maltreatment group, and 235 participants (31.8%) made up the poly-victimization group as measured by the Categorical Type variable.

Descriptive Statistics for the Research Variables

Descriptive statistics for the research variables for the sample by sex are presented in Table 6. Based on t-tests, statistically significant sex differences were only detected for the Trauma Symptom Checklist total score. The correlations between the primary research variables are presented in Table 7.

Table 6
Means, Standard Deviations, Minimum, Maximum, and *p* values for Research Variables

Variable (α*)	Mean	SD	Min	Max	*p*	*d****
Depression (α=.89)	13.62	9.47	0	54		
Men	12.6	8.12				
Women	13.95	9.84			.109	
Trauma Sx (α=.92)	26.25	17.97	0	99		
Men	21.86	16.16				
Women	27.61	18.30			.000**	.33
Self-Esteem (α=.93)	22.03	5.95	0	30		
Men	21.86	6.36				
Women	22.07	5.85			.684	
Self-Capacities (α=.93)	2.12	0.69	1	4.75		
Men	2.10	0.67				
Women	2.12	0.70			.738	

N=738; Men (N=164); Women (N=569). Depression = CES-D; Trauma Sx = TSC-40; Self-Esteem = RSES; Self-Capacities = IEQ.
*α = Cronbach's alpha ** *p* <.01
***Cohen's d for effect size; values of 0.3 = small effects (Pedhazur & Schmelkin, 1991)

Table 7
Correlations Between the Primary Research Variables

Variables	CES-D	IEQ	RSES	TSC-40	ContAct	ContType
CES-D	1.00					
IEQ	.71**	1.00				
RSES	-.52**	-.65**	1.00			
TSC-40	.73**	.65**	-.44**	1.00		
ContAct	.35**	.34**	-.24**	.46**	1.00	
ContType	.34**	.33**	-.22**	.46**	.84**	1.00

***p* <.01

Tests of the Research Hypotheses

Hypothesis 1

Hypothesis 1 stated that there would be no significant differences in relations with measures of psychological distress (depression, trauma symptomatology, and self-esteem) as a function of method of assessing poly-victimization. Specifically, hypothesis 1a stated there would be no statistically significant difference between the correlation between the *Continuous Act* score and the CES-D depression score and the correlation between the *Continuous Type* score and the CES-D depression score. Hypothesis 1b stated there would be no statistically significant difference between the correlation between the *Continuous Act* score and the RSES self-esteem score and the correlation between the *Continuous Type* score and the RSES self-esteem score. Hypothesis 1c stated there would be no statistically significant difference between the correlation between the *Continuous Act* score and the TSC-40 trauma symptomatology score and the correlation between the *Continuous Type* score and the TSC-40 trauma symptomatology score.

Pearson product moment correlations between the poly-victimization variables (Continuous Act and Continuous Type) and outcome measures (CES-D, RSES, TSC-40) are displayed in Table 8. Fisher Z analyses were used to compare the poly-victimization Continuous Type and poly-victimization Continuous Act correlation coefficients. Fisher Z analyses revealed that there were no significant differences between the correlations obtained when using acts of victimization (Continuous Act) to measure poly-victimization and the correlations obtained when using types of victimization

(Continuous Type) to measure poly-victimization (*p*s > .05). In other words, both ways of assessing poly-victimization accounted for relatively equal variance in scores on psychological distress as measured by depression, self-esteem, and trauma symptomatology.

Table 8
Correlations between Poly-Victimization, as measured by Continuous Type and Continuous Act, and the research variables (N=738)

Variables	ContType	ContAct	Fisher Z
	r	*r*	*p*
CES-D	.34*	.35*	.96
TSC-40	.46*	.46*	.86
RSES	-.22*	- .24*	.60

ContType = Continuous Type Poly-victimization; ContAct = Continuous Act Poly-victimization
CES-D = Center for Epidemiological Studies – Depression Scale; TSC-40 = Trauma Symptom Checklist – 40; RSES = Rosenberg Self-Esteem Scale
* $p < .01$

Hypothesis 2

The second hypothesis stated that individuals who experience poly-victimization will report significantly greater psychological distress (i.e. depression, low self-esteem, trauma symptomatology) than will non poly-victims. More specifically, Hypothesis 2a stated that individuals who experienced poly-victimization, as defined by the Categorical Type variable, would report greater levels of depression, greater trauma symptomatology, and lower self-esteem than would individuals who have not experienced poly-victimization.

The poly-victimization variable Categorical Type classified participants into one of three maltreatment groups based on the number of types of victimization they experienced: no maltreatment; child maltreatment (one or two types of victimization);

and poly-victimization (3 or more types of victimization). A one-way multiple analysis of variance (MANOVA) was conducted to explore group differences in psychological distress as measured by depression, self-esteem, and trauma symptomatology. The MANOVA results as a function of victimization group membership were significant, Wilks' lambda = .804, F (6, 1466) = 28.21, p <.001, η^2=.104. As indicated in Table 9, planned comparisons analyzed with Tukey's Honestly Significant Difference (HSD) test demonstrated that the poly-victimization group reported significantly greater levels of depression, more trauma symptomatology, and lower self-esteem than did the child maltreatment and no maltreatment groups. Furthermore, the child maltreatment group reported significantly greater levels of depression, more trauma symptomatology, and lower self-esteem than did the no maltreatment group. All Tukey HSD analyses were significant at the p <.05 level.

Hypothesis 2b stated that poly-victims would report greater depression, more trauma symptomatology, and lower self-esteem than would non poly-victims as measured by *Categorical Act* scores. The poly-victimization variable Categorical Act classified participants into two groups based on the number of acts of victimization they experienced: non poly-victims and poly-victims. Utilizing Finkelhor et al.'s (2009) logic of establishing a poly-victimization threshold (i.e. most extreme 10% of sample), individuals experiencing more than 12 acts of victimization were classified as poly-victims (N=86) and individuals experiencing less than 13 acts of victimization were classified as non poly-victims (N=652). A one-way multiple analysis of variance (MANOVA) was conducted to explore group differences in psychological distress as

measured by depression, self-esteem, and trauma symptomatology. The MANOVA results as a function of victimization group membership were significant, Wilks' lambda = .918, F (3, 734) = 21.803, p <.001, η^2=.082. Specifically, poly-victims reported greater depression, more trauma symptomatology, and lower self-esteem than did non poly-victims. See Table 10 for group means and standard deviations.

Table 9
Group Differences in Psychological Distress: Summary of Tukey HSD Analyses

Variable	N	Mean	SD	*p*	*d****
Depression					
No Maltreatment	235	10.20	7.03		
Child Maltreatment	268	12.71	8.30		
Poly-Victimization	235	18.08	11.04		
NM vs. CM				.005*	.33
NM vs. PV				.000**	.85
CM vs. PV				.000**	.55
Trauma Symptomatology					
No Maltreatment	235	17.46	12.89		
Child Maltreatment	268	24.61	15.08		
Poly-Victimization	235	36.92	19.90		
NM vs. CM				.000**	.51
NM vs. PV				.000**	1.16
CM vs. PV				.000**	.70
Self-Esteem					
No Maltreatment	235	23.70	5.06		
Child Maltreatment	268	22.28	5.76		
Poly-Victimization	235	20.06	6.43		
NM vs. CM				.016*	.26
NM vs. PV				.000**	.63
CM vs. PV				.000**	.36

Depression = CES-D; Trauma Symptomatology = TSC-40; Self-Esteem = RSES
NM = No maltreatment; CM = Child Maltreatment; PV = Poly-victimization
***Cohen's d for effect size; values of 0.3 indicate small effects; 0.5 indicate moderate effects; and 0.8 indicate large effects (Pedhazur & Schmelkin, 1991)
*p <.05
**p <.001

Hypothesis 3

Hypothesis 3 predicted that a history of poly-victimization would be positively associated with impairment in self-capacities as measured by the Inner Experience Questionnaire (IEQ). Hypothesis 3 also predicted that poly-victims would report significantly greater impairment in self-capacities than would non poly-victims.

Table 10
Means and Standard Deviations for Psychological Distress as a Function of Group Membership

Psychological Distress Variable	N	Mean	Standard Deviation	*d***
Depression				
Non Poly-Victims	652	12.89	9.05	
Poly-Victims	86	19.10	10.80	.62
Trauma Symptomatology				
Non Poly-Victims	652	24.41	16.53	
Poly-Victims	86	40.24	21.95	.81
Self Esteem				
Non Poly-Victims	652	22.38	5.78	
Poly-Victims	86	19.37	6.56	.49

*Note: Depression = CES-D; Trauma Symptomatology = TSC-40; Self-Esteem = RSES
**Cohen's d for effect size; values of 0.3 indicate small effects; 0.5 indicate moderate effects; and 0.8 indicate large effects (Pedhazur & Schmelkin, 1991)

Preliminary Confirmatory Factor Analysis for IEQ

Prior to examining this third hypothesis, the internal structure of the IEQ was examined to determine whether a 3-factor or 1-factor configuration of self-capacities was most appropriate for interpreting the scale with the current sample.

Deiter and Pearlman (1999) originally designed the 24-item IEQ to be comprised of three subscales: Affect Tolerance, Self-Worth, and Inner Connection, each consisting of 8 items. Data from all 738 research participants were used in these analyses.

Confirmatory factor analysis was conducted using AMOS 17.0. Each of the three subscales was considered a latent factor in the analysis and the eight corresponding items for each subscale served as indicator variables for that factor. Because Deiter and Pearlman found such high intercorrelations between these three latent factors and a similar pattern was found in the current study (See Table 11), each factor was allowed to freely covary with the other two factors. Six fit indices were used to assess the fit of these models. Each fit index is described next and the results are presented in Table 12.

Table 11
Intercorrelations Among the Three Subscales of the Inner Experience Questionnaire

Factors	AT	SW	IC
AT	--		
SW	.88	--	
IC	.95	.85	--

N=738
AT = Affect Tolerance; SW = Self-Worth; IC = Inner Connection
*p <.01

The 3-factor CFA structure was examined first. The χ^2 statistical significance test was applied to examine the fit of the structure. Thompson (2004) stated that this value should not be significant, because this would suggest that the preferred structure is significantly different from the just-identified structure. Results from the factor analysis produced a χ^2 (249) =1648.76. This value was significant at $p < .001$. However, because the χ^2 value is often influenced by the sample size, Thompson suggested that this fit statistic is not very useful when the sample size is large. Kline (2005) suggested examining the χ^2/df ratio for a more accurate assessment of model fit. Bollen (1989) suggests that this ratio should be less than 3; however ratios as high as 5 have been recommended as indicating good fit. The ratio for the current analysis is 6.62 which does

not indicate good fit. Kline (2005) also suggests using the root mean square error of approximation (RMSEA) to examine goodness of fit. To indicate a good fit it is suggested that the RMSEA have a value of .08 or less (Kline), and in this structure the RMSEA was .087 which does not indicate good fit. Additional goodness of fit indices that were used to examine the present structure were Bentler's comparative fit index (CFI), Bentler and Bonnet's normed fit index (NFI), and the goodness of fit index (GFI). The first two indices, CFI and NFI, are incremental fit indices and correct for model complexity. These fit indices compare the fit of the model to a baseline or null model (Kline; Thompson). The latter index, GFI, is an absolute fit index used to examine "the proportion of variability in the sample covariance matrix explained by the model" (Kline, 2005, p. 143). Kline recommends using these three fit indices in addition to the χ^2/df ratio and RMSEA. A structure is assumed to have adequate fit if the CFI, NFI, and GFI indices have values $\geq .90$ (Kline). For the 3-factor structure in this study the CFI, NFI, and GFI values were .82, .80, and .81, respectively. These values are below the cut off value of .90 and are not indicative of adequate fit. Collectively, the findings from the 3-factor CFA did not support the three subscale structure of the IEQ.

Anticipating that a 3-factor structure would not provide an adequate fit for the IEQ data, a 1-factor CFA was also conducted. The same six fit indices and cutoffs were used to assess the fit of this structure and results are displayed in Table 12.

Table 12
Goodness of Fit Indices for the 3-Factor and 1-Factor Structures of the IEQ

Factor Structure	χ^2	df	*p*	χ^2/df	RMSEA	CFI	GFI	NFI
3-Factor	1648.76	249	<.001	6.62	.087	.82	.81	.80
1-Factor	1850.30	254	<.001	7.29	.092	.80	.78	.77

Unfortunately, the one-factor structure did not provide a better fit for the IEQ data than did the 3-factor structure. The poor fit of the 3-factor structure of the IEQ coupled with the possible multicollinearity of the three factors (*r*s .88, .85, and .95) suggest that the three subscales of the IEQ may be redundant. Because the developers of the IEQ encountered similar results and suggested using the IEQ total score as opposed to the three individual subscale scores, the IEQ total score was be used for the analyses to test Hypothesis 3.

Given the significant relation between childhood maltreatment and impaired self-capacities, Hypothesis 3 predicted that a history of poly-victimization, as measured by the Continuous Act (Hypothesis 3-a1) and Continuous Type (Hypothesis 3-a2) variables, would be positively associated with impairment in self-capacities as measured by the IEQ total score. Pearson correlation coefficients supported this hypothesis. Poly-victimization, as measured by both Continuous Act and Continuous Type was significantly related to self-capacity scores on the IEQ, *r*s = .34 and .33, *p*s <.001, respectively.

Hypothesis 3b further predicted that poly-victims would report significantly greater impairment in self-capacities than would non poly-victims. Specifically, Hypothesis 3-b1 stated that poly-victims would report greater impairment in self-capacities than would non poly-victims as measured by *Categorical Type* scores. A one-way analysis of variance (ANOVA) was conducted to examine maltreatment group differences, as measured by Categorical Type, in self-capacity scores. Results indicated that group differences did exist, F (2, 737) = 36.31, $p < .001$, η^2=.112. As indicated in

Table 13, planned comparisons analyzed with Tukey's HSD test demonstrated that the poly-victimization group reported significantly greater impairment in self-capacities than did the child maltreatment and no maltreatment groups. Furthermore, the child maltreatment group reported significantly greater impairment in self-capacities than did the no maltreatment group. All Tukey HSD analyses were significant at the $p < .05$.

Table 13
Groups Differences in Impairment in Self-Capacities: Summary of Tukey HSD Analyses

Variable	N	Mean	SD	*p*	*d**
Self-Capacities					
No Maltreatment	235	1.85	.521		
Child Maltreatment	268	2.07	.618		
Poly-Victimization	235	2.43	.795		
NM vs. CM				.000**	.38
NM vs. PV				.000**	.86
CM vs. PV				.000**	.51

Self-Capacities = IEQ total score
NM = No maltreatment; CM = Child Maltreatment; PV = Poly-victimization
**$p < .001$
*Cohen's d for effect size; values of 0.3 indicate small effects; 0.5 indicate moderate effects; and 0.8 indicate large effects (Pedhazur & Schmelkin, 1991)

Hypothesis 3-b2 stated that poly-victims as measured by *Categorical Act* would report greater impairment in self-capacities than would non poly-victims. An independent samples t-test was conducted to examine group differences in self-capacity scores when poly-victimization was measured using the Categorical Act variable. Results indicated that group differences did exist, $t\ (736) = -6.583$, $p < .001$. Specifically poly-victims reported greater impairment in self-capacities (M=2.57, SD=.74) than did non poly-victims (M=2.06, SD=.66). This group difference evidenced a moderate effect size (d=.73).

CHAPTER V

DISCUSSION

The purpose of the present study was two-fold. First, the long-term effects of exposure to multiple acts of maltreatment in childhood, or poly-victimization, were examined within the framework of Constructivist Self-Development Theory (CSDT) and its emphasis on self-capacities (McCann & Pearlman, 1990). The second purpose of this study was to explore whether the decision to use acts of victimization compared to types of victimization when assessing poly-victimization with the Juvenile Victimization Questionnaire (JVQ) made a difference when examining the long-term effects of poly-victimization. Subsequently, the effect of poly-victimization on psychological distress in adulthood was also examined. Overall, the present data were unable to support a relation between CSDT with its emphasis on self-capacities and poly-victimization. The Inner Experience Questionnaire (IEQ) appeared a poor measure of self-capacities, therefore failing to provide strong evidence for a relation between impairment in self-capacities and poly-victimization. Regarding the second purpose of the study, data suggest that similar results may be obtained when either acts or types of victimization are used to assess poly-victimization. This latter finding provides tentative empirical support for using the JVQ and the methods

employed by both Finkelhor's group (utilizing acts; 2007a; 2009) and Higgins and McCabe (utilizing types; 2000a; 2000b) to examine the experience of poly-victimization.

Experience of Victimization

Childhood and juvenile victimization was a common experience in this sample of college undergraduates. Given the possible perception that several of the acts of victimization assessed by the JVQ (i.e. bullying by siblings/peers, exposure to flashing) are "less severe" or "more common" than others (i.e. rape by stranger, physical assault with weapon), the degree of severity was taken into account when coding the JVQ items. Specifically, sample means for each of the JVQ items was calculated and only those individuals experiencing an act of victimization more often than the mean were credited as experiencing the act of victimization. For example, the sample mean for bullying was 1.72 which was rounded up to 2 (the next highest whole number that participants could report). If an individual reported experiencing bullying 3 or more times, they were coded as experiencing bullying. However, if the person only experienced bullying one or two times they were classified as not experiencing bullying. The rationale for this method of coding was that individuals who have experienced an act of maltreatment more often than was deemed "average" for the current sample should have it counted as an act of victimization, regardless of how "common" it may be perceived. Conversely, those individuals reporting experiences that seem "typical" or less than typical (below the mean) for a non clinical sample, should not have those experiences counted as victimization. In other words, this method of coding the JVQ items attempts to take the severity of experiences into account when classifying participants as poly-victims.

On average, participants reported experiencing six individual acts of victimization (SD=4.89) and three different types of victimization (SD=1.55). The number of acts of victimization experienced by a single participant ranged from 0 to 28. Only 9% of the current sample reported no victimization at all. Approximately 15% reported one type of victimization, 18% reported two types, 20% reported three types, 21% reported four types, and 16% reported experiencing all five types of victimization.

Finkelhor and colleagues (2009) suggested using a cut-off of the top 10 percentile of victimization in order to identify poly-victims. In other words, after determining how many acts of victimization made up the most extreme 10% of the current sample, individuals experiencing that many acts of victimization or more were identified as poly-victims. Using this logic, 11.7% of the sample experienced 13 or more acts of victimization and therefore 86 participants were identified as poly-victims. Following the definition of poly-victimization employed by Higgins and McCabe (2000) in which an individual experiencing three or more different types of victimization is classified as a poly-victim, 31.8% of the current sample was identified as poly-victims.

It is important to note that although 57% of the sample reported experiencing three or more types of victimization by endorsing at least one occurrence of one act of victimization covered under each type, only 31.8% of the sample was classified as poly-victims according to the Higgins and McCabe method. This discrepancy occurred because Higgins and McCabe's method specifies that only those individuals scoring above the mean on each subscale or type of victimization are classified as experiencing that type of victimization. For example, the sample mean for the sexual victimization

type was 2, meaning that on average the sample reported experiencing either two individual acts of sexual victimization a single time or one act of sexual victimization two times. Only those individuals scoring a 3 or higher on the sexual victimization subscale were classified as experiencing that type of victimization for the purposes of identifying poly-victims using Higgins and McCabe's method.

Constructivist Self-Development Theory

Little research to date has applied theory when examining the long-term effects of childhood victimization. Past research has focused primarily on the symptoms associated with victimization and neglected to examine theoretical explanations for these symptoms. Therefore the present study sought to address this gap in the literature by assessing the utility of CSDT and its emphasis on the development of self-capacities in explaining the hypothesized negative effects of poly-victimization.

The Inner Experience Questionnaire (Dieter & Pearlman, 1999) was chosen as the measure of self-capacities for this study. Given the lack of research using the IEQ, as well as the high correlations between subscales (affect tolerance, inner connection, and self worth) found by Brock et al. (2006), this study first examined the factor structure of the IEQ. Confirmatory factor analysis was used to explore the data using two different models: a 3-factor model and a 1-factor model. Results showed that both models were a poor fit for the current data. Given these findings, it is unclear if the IEQ is an adequate measure of self-capacities as defined by CSDT. Specifically, the high correlations observed in the present study between the three subscales suggest that there may be some redundancy in the IEQ items. At the very least the data suggest that the IEQ is not

measuring three separate constructs. Thus, caution should be used when interpreting the results obtained with the IEQ.

Poly-Victimization and Self-Capacities

Past research (Briere & Rickards, 2007; Brock et al., 2006; Deiter et al., 2000; Pearlman, 1998; Richmond et al., 2009) has found support for the relation between child maltreatment and self-capacities. Specifically, individuals who had experienced some type of child maltreatment reported greater impairment in self-capacities than did individuals who did not experience maltreatment. Based on these earlier findings, it was hypothesized that individuals experiencing poly-victimization would report greater impairment in self-capacities than individuals not experiencing poly-victimization. A significant positive relation (r=.34) was observed between poly-victimization and the development of self-capacities as assessed by the IEQ. Particularly, the greater the number of acts and types of victimization experienced the greater the impairment in participants' self-capacities.

When analyzing this relation categorically using Finkelhor et al.'s method those participants identified as poly-victims reported greater impairment in their self-capacities than did participants not identified as poly-victims. These findings evidenced a moderate effect size (Cohen's d = .73). The same results were found when participants were classified into one of three maltreatment groups using Higgins and McCabe's method. Poly-victims reported greater impairment in self-capacities compared to child maltreatment victims (moderate effect size, d = .51) and non-victims (large effect size, d = .86). Additionally, individuals experiencing lower levels of victimization (child

maltreatment victims) reported greater impairment in self-capacities than did those individuals not experiencing any victimization (small effect size, d =.38).

Although these results appear to support the contention of Hypothesis 3 indicating that there is a significant relation between a history of poly-victimization and the development of impaired self-capacities, caution in this interpretation is warranted. As mentioned previously, the factor structure of the IEQ did not fit the current study data. As such, it is unclear whether the IEQ is truly measuring self-capacities as defined by Constructivist Self-Development Theory. Therefore while the study results suggest that poly-victims score higher on the IEQ than do non-poly-victims, it is unclear how exactly high scores on the IEQ should be interpreted.

Although these data cannot provide clear support for CSDT as an applicable theory in explaining the long-term effects of poly-victimization, it would be premature to discard this theory completely. It is possible that the non-significant results obtained here were due largely to the measure chosen to assess self-capacities (i.e. IEQ) rather than a flaw in the theory. Further research is needed to determine an accurate method of measuring self-capacities and therefore more adequately examine the applicability of Constructive Self-Development Theory in explaining long-term effects of poly-victimization.

Acts of Victimization versus Types of Victimization to Assess Poly-Victimization

By design, only approximately 10% of the current sample could be classified as poly-victims using Finkelhor et al.'s (2009) method; whereas almost 32% of the sample were classified as poly-victims according to Higgins and McCabe's method. Given the

large number of acts of victimization endorsed by the upper 10% of the sample, virtually all participants identified as poly-victims according to Finkelhor et al.'s cutoff had experienced three or more types of victimization (85 of 86 participants). Only one poly-victim identified using Finkelhor et al.'s method was not identified as a poly-victim using Higgins and McCabe's method. Therefore it would seem that when using such an extreme cutoff as the upper 10% to determine the occurrence of poly-victimization, the decision to examine acts of victimization does not identify many additional individuals whom would otherwise be missed when examining types of victimization.

Consistent with findings from other studies (Elliott et al., 2009; Finkelhor et al., 2005a; 2005b; 2007a; Richmond et al., 2009), poly-victimization was positively related to psychological distress, indicating that the more victimization one experienced the greater the psychological distress they reported. Hypothesis 1 predicted that there would be no significant differences in relations with measures of psychological distress as a function of method of assessing poly-victimization. In other words, when assessing poly-victimization using continuous variables no differences would be observed in the correlations between the poly-victimization variables (Continuous Act and Continuous Type) and the three psychological distress variables regardless of using acts or types of victimization to assess poly-victimization. This hypothesis was partially supported.

When comparing the correlations and thus the percentage of variance accounted for in psychological distress as a function of method of assessing poly-victimization, no significant differences were found. Specifically the Continuous Act variable, which used acts of victimization to measure poly-victimization, accounted for 12.3% of the variance

in depression (r=.35), 21.2% of the variance in trauma symptomatology (r=.46), and 5.8% of the variance in self-esteem (r=-.24). Similarly the Continuous Type variable, which used types of victimization to measure poly-victimization, accounted for 11.6% of the variance in depression (r=.34), 21.2% of the variance in trauma symptomatology (r=.46), and 4.8% of the variance in self-esteem (r=-.22). These findings support Hypothesis 1.

Because this study also examined methods of assessing poly-victimization categorically, it was decided post-hoc to examine differences in effect sizes to determine whether acts or types of victimization were more effective in examining the long-term effects of poly-victimization. Multivariate analysis of variance showed that regardless of whether poly-victims were classified based on the number of acts of victimization they experienced (Categorical Act variable) or the number of types of victimization they experienced (Categorical Type variable), poly-victims reported greater depression, more trauma symptomatology, and lower self-esteem than did non poly-victims. Effect sizes, determined by Cohen's d, varied depending upon the outcome variable assessed. Cohen (1988) set forth the following guidelines for interpreting effect sizes, *d* values around 0.3 were considered small effects, values around 0.5 were considered moderate effects, and values ≥ 0.8 were considered large effects. Overall, group differences in trauma symptomatology yielded the largest effect sizes (Categorical Type = .51; .70; 1.16; Categorical Act = .81). Differences in self-esteem produced the smallest effect sizes of the three psychological distress variables (Categorical Type = .26; .36; .63; Categorical Act = .49). Group differences in depression generated small to large effect sizes

depending upon the groups being compared. For example, as defined by Categorical Type comparing the no maltreatment group to the child maltreatment group generated a small effect size of .33; whereas comparing the no maltreatment group to the poly-victimization group yielded a large effect size of .85.

Due to differences in the creation of the two Categorical poly-victimization variables (Categorical Type produced three groups; Categorical Act produced two groups), effect sizes for each variable could not be directly compared. In order to directly compare the effect sizes yielded by each poly-victimization variable, the variables were altered slightly and two additional analyses were conducted. It is necessary to clarify that the altered variables were used only for the direct comparison of the effect sizes, in order to further explore and address Hypothesis 1. These changes were not applied when analyzing Hypotheses 2 and 3. The first change required the collapsing of the no maltreatment and child maltreatment groups classified by the Categorical Type variable into one larger "non poly-victimization" group. Because the Categorical Act variable using Finkelhor et al.'s logic only classified two groups, poly-victims and non poly-victims, this change made the direct comparison of the effect sizes yielded by each variable possible. With this modification, analyses showed that both the Categorical Act and Categorical Type variables yielded similar effect sizes for group differences (poly-victims compared with non poly-victims) in depression (Categorical Act d = .62; Categorical Type d = .68), trauma symptomatology (Categorical Act d = .81; Categorical Type d = .89), and self-esteem (Categorical Act d = .49; Categorical Type d = .48). These reports also provide support for Hypothesis 1.

Finally, in order to maintain the three groups classified by the Categorical Type variable and directly compare the effect sizes generated by each of the three group comparisons (no maltreatment vs. poly-victimization; child maltreatment vs. poly-victimization; no maltreatment vs. child maltreatment) a third group was created using the Categorical Act variable. This third "low level victimization" group was created to parallel the "child maltreatment" group classified by the Categorical Type variable. The "low level victimization" group generated by the Categorical Act variable consisted of individuals who reported at least one act of victimization, but less than 13 acts (i.e. the cutoff for the poly-victimization group). The rationale being that this "low level victimization group" would be somewhat equivalent to the "child maltreatment" group classified by the Categorical Type variable. Specifically individuals in both of these groups had experienced some act or type of victimization but not enough acts or types to be identified as poly-victims. With this modification each Categorical poly-victimization variable now classified participants into one of three groups: no victimization, some lower level of victimization, and poly-victimization.

When comparing the poly-victimization group to the no victimization group moderate to large effects sizes were observed across each psychological distress variable using both the Categorical Act and Categorical Type variables. Using acts to classify participants, effect sizes ranged from .90 for self-esteem to 1.56 for trauma symptomatology. Using types to classify participants, effect sizes ranged from .63 for self-esteem to 1.16 for trauma symptomatology. Across all three psychological distress variables, the group differences observed with the Categorical Act variable yielded higher

effect sizes (depression d = 1.07; self-esteem d = .90; trauma d = 1.56) than did the group differences observed with the Categorical Type variable (depression d = .85; self-esteem d = .63; trauma d = 1.16). The same pattern of results was found when examining the group differences between the low level victimization group and the poly-victimization group and the differences between the no victimization group and low level victimization group. More specifically, using acts to classify participants into groups generated larger effects sizes across all three outcome variables and all three group comparisons. These results provide evidence that contradicts Hypothesis 1.

To summarize, results evidenced partial support for Hypothesis 1. Results from the present study suggest that when assessing poly-victimization using continuous variables, the decision to utilize acts or types of victimization does not make a difference. Specifically, similar correlations between predictor and outcome variables may be observed regardless of whether acts or types of victimization are used to assess poly-victimization. Conversely, when classifying participants into groups and examining the effects of poly-victimization categorically, the decision to use acts versus types of victimization can make a difference in the results. Results showed that when utilizing two groups, poly-victims and non poly-victims, similar effect sizes were observed regardless of the method (acts vs. types) of assessing poly-victimization. However, when further categorizing the sample into three groups (no victimization, low levels of victimization, poly-victimization) differences in effects sizes by method of assessing poly-victimization were observed. Specifically, classifying participants according to acts of victimization yielded larger effect sizes across all group comparisons for all three

psychological distress variables. Thus, these findings provide some initial support for using acts of victimization rather than types of victimization when categorizing participants into groups beyond poly-victims and non poly-victims.

One final note for consideration when determining whether to use acts or types of victimization to assess for poly-victimization is the tendency for one method to overpathologize the sample and the other to underpathologize. As mentioned previously, Higgins and McCabe's method identified 235 participants in the current sample as poly-victims, whereas Finkelhor et al.'s method only identified 86 participants as poly-victims. With Finkelhor et al.'s method the percentage of participants in each group is fixed: 10% in the poly-victimization group and 90% in the non poly-victimization group. Higgins and McCabe's method allows for more equality in group size. Future researchers should take this into consideration when choosing their method of assessing poly-victimization.

Poly-Victimization and Psychological Distress

A second purpose of this study was to determine whether individuals experiencing poly-victimization (high levels of victimization in childhood) reported greater psychological distress (depression, trauma symptoms, and low self-esteem) compared to individuals experiencing lower levels of victimization or no victimization in childhood. Significant results were obtained with both the Categorical Act and Categorical Types variables. Poly-victims were defined by the Categorical Act variable as those individuals experiencing 13 or more acts of victimization (upper 10% victimization threshold). Results showed that poly-victims reported greater depression, more trauma symptoms, and lower self-esteem than did non poly-victims. These results

are similar to those obtained by Finkelhor et al. (2009) with their sample of children and youth, in which poly-victims reported significantly more trauma symptoms than did non poly-victims.

With the Categorical Type variable, participants were categorized into one of three groups: no maltreatment (no victimization types), child maltreatment (1 or 2 victimization types), and poly-victimization (3+ types). When classified in this manner, results showed that participants experiencing poly-victimization reported significantly greater levels of depression, more trauma symptoms, and less self-esteem than did participants in the child maltreatment and no maltreatment groups. Further, participants in the child maltreatment group, reported greater levels of depression, more trauma symptoms, and less self-esteem than did the no maltreatment group. These findings are consistent with those of Higgins and McCabe (2000a; 2000b), in which adults experiencing 3 or more types of victimization reported significantly more trauma symptoms and lower self-esteem than did individuals experiencing one or two types of victimization. It is noteworthy that the two outcome measures used by Higgins and McCabe (Trauma Symptom Checklist-40 and Rosenberg Self-Esteem Scale) are the same as those used in the present study with similar results achieved. Overall these results provide support for this study's second hypothesis indicating that individuals who have experienced poly-victimization report greater psychological distress as determined by depression, trauma symptoms, and low self-esteem than do individuals who experience lower levels of victimization or no victimization at all.

While results obtained with both the Categorical Act and Categorical Type variables were significant and supported the hypotheses of the present study, caution should be used when interpreting some of these findings. Whereas it is reasonable to conclude that individuals who experience more acts and more types of victimization will report greater psychological distress than individuals reporting less or no victimization, the effect sizes for some of these results were small. For the most part, moderate to large effects sizes were observed for group differences in depression and trauma symptomatology indicating the strength and clinical significance of these differences. However, the effect sizes for group differences in self-esteem were primarily small to moderate. The small effects sizes observed for the differences in self-esteem between the no maltreatment group and the child maltreatment group (d=.26) and the differences between the child maltreatment group and poly-victimization group (d=.36) suggest that these differences are not clinically significant. Moderate effect sizes were found for the differences between the no maltreatment group and poly-victimization groups, as well as the differences between poly-victims and non poly-victims (Categorical Act variable), indicating more clinically relevant differences. Given the relation between low self-esteem and child maltreatment reported in other research (Gold et al., 1999; Hart et al., 2002; Hildyard & Wolfe, 2002), it is possible that a different measure of self-esteem, other than the Rosenberg Self-Esteem Scale, may yield more clinically significant results. This possibility should be explored further in future research.

Finally it should be noted that while most of the demographic factors assessed in this study did not appear significantly related to the outcome measures, sex differences

were observed in scores on the Trauma Symptom Checklist – 40 (TSC-40). Specifically, female participants reported greater trauma symptomatology (M= 27.61, SD=18.30) than did male participants (M=21.86, SD=16.16). This difference may have occurred for several reasons. First, because this group difference yielded a small effect size (*d* =.33) it suggests that the results are not clinically significant. Given the large sample size of the present study, the observed statistical significance for this analysis may have been the product of a large sample rather than true group differences. A second reason could be that the symptoms assessed by the TSC-40 (e.g. sexual problems, anxiety, depression) are more common for women compared to men. The TSC-40 was designed as a measure of posttraumatic stress. A number of epidemiologic studies (Borooah, 2010; Marcus, Young, Kerber, Kornstein, Farabaugh, Mitchell, et al., 2005; McLean & Anderson, 2009) have documented that PTSD, and trauma related depression and anxiety are twice as common in women compared to men, therefore it is reasonable to presume that women may report more trauma symptoms on the TSC-40. It should be noted that despite known differences in depression rates by sex, scores on the CES-D did not evidence sex differences. One possible reason for this discrepancy could be the differences in depression measured by the CES-D and TSC-40. Specifically, the CES-D is designed to measure major depressive disorder, whereas the TSC-40 is designed to measure more trauma-related depression. Thus, women in this relatively high functioning, non clinical sample may report more trauma-related depression (as measured by the TSC-40) but not report more clinical levels of depression indicative of major depressive disorder (as measured by the CES-D) when compared with their male counterparts. A final reason for

the sex differences observed in scores on the TSC-40 could be that more women than men reported experiencing poly-victimization. Therefore, the finding that women reported more trauma symptomatology than did men could reflect actual real life differences in trauma experiences.

Limitations and Suggestion for Future Research

Given the lack of clarity regarding the best method of assessing poly-victimization (i.e. whether to use acts or types of victimization), the present study focused on the definitional questions related to poly-victimization in order to provide direction for future research. Although the results of this study did not provide strong, consistent evidence supporting one assessment method over another, results did show that significant findings were obtained using variables created with acts as well as types of victimization. Therefore it seems reasonable that future researchers could follow either Finkelhor et al.'s method of assessing acts of victimization using a 10% cutoff to classify poly-victims or Higgins and McCabe's method of defining poly-victims as individuals experiencing three or more types of victimization. Having focused primarily on definitional issues, the present study has several limitations that illuminate the next logical steps in the examination of poly-victimization. This section discusses these limitations and provides suggestions for future research.

Although this study provides tentative empirical support for the use of the adult retrospective version of the JVQ as an instrument for assessing poly-victimization, more research is needed to assess the psychometric properties of this instrument. Finkelhor's group (2005c) examined the reliability and validity of the JVQ for use with a large

sample of children and youth; however researchers have yet to examine the reliability and validity of the adult retrospective version. The only reliability data available for the present version of the JVQ are the alpha coefficients reported here and in a previous study (Richmond et al., 2009). These alpha coefficients, while possibly not the most appropriate measure of internal consistency for this measure, were lower than desired (all values <.80). An examination of the construct validity of the JVQ would provide more clinically relevant psychometric data and determine whether the JVQ adequately assesses each of five victimization types. Of particular importance is investigating the convergent validity of the JVQ by examining participant reports of victimization on the JVQ as well as reports of victimization on a psychometrically validated child maltreatment assessment tool, such as the Child Trauma Questionnaire (CTQ; Bernstein & Fink, 1998). Due to copyright laws and the online methodology used here, the present study was unable to utilize the CTQ in this manner. Future research examining the test-retest reliability and construct validity of this measure is needed to support the continued use of the adult retrospective version of the JVQ in empirical research.

The amount of theory-driven empirical research examining child maltreatment and poly-victimization is small. As such, the concepts of Constructivist Self Development Theory, particularly the development of self-capacities, require further investigation. Of particular importance is adequate assessment of self-capacities. The Inner Experience Questionnaire utilized in the present study is a relatively newer measure with somewhat questionable psychometric properties. Specifically, the developers were unclear whether one full-scale self-capacity score or three individual self-capacity scores

should be generated. This study attempted to explore the factor structure of the IEQ to determine which structure best fit the sample data. Unfortunately neither the 1-factor nor the 3-factor structure provided a good fit for the present data using established interpretive criteria. Further research should be conducted on the psychometric properties of the IEQ to determine its efficacy in examining impairment in self-capacities.

This study was primarily exploratory in nature – exploring how best to assess poly-victimization. Determining how best to assess poly-victimization is an important first step before examining the long-term effects of poly-victimization and the relation between poly-victimization and other constructs. Now that a tentative relationship has been established between poly-victimization and impairment in self-capacities, additional research needs to examine the possible mediating and/or moderating role of self-capacities in the relation between poly-victimization and psychological distress. Investigations into possible mediating and moderating models for the relations examined here were beyond the purpose of the present study and are valuable areas for future research.

It is important to reiterate the focus of the present study on the applicability of the JVQ in the assessment of poly-victimization. That said, the results obtained here do not generalize to all measures of childhood maltreatment and victimization (e.g. the Comprehensive Child Maltreatment Scale used by Higgins and McCabe, 2001b). Additional research should continue to examine different ways of assessing poly-victimization (acts and types) with other measure of child maltreatment to determine if

the decision to use acts of victimization versus types of victimization makes a difference when utilizing other measures.

Another limitation concerns the sample recruited for this study. The present study was conducted with a predominately Caucasian, female sample of presumably high functioning college undergraduate students. Replication of the study findings with a more diverse and clinical sample would be beneficial.

One final caution when interpreting the results of the present study is the possibility of "over pathologizing" an otherwise non-clinical sample. It is unclear how the current results may compare to those obtained with a more clinical sample. Past research studies (Arata et al., 2005; Clemmons et al., 2007; Higgins & McCabe, 2000a, Martsolf et al., 2004) which have utilized the TSC-40, RSES, and/or CES-D when examining poly-victimization have recruited primarily non clinical samples (i.e. community adults, college students, primary care settings). The mean values obtained on the outcome measures in this study for the poly-victimization groups are similar to those reported in past literature. Unfortunately given the lack of research with more clinical samples (utilizing the same outcome measures), it is unclear whether more clinical samples of poly-victims would report similar or greater levels of psychological distress. Therefore, more research is needed to determine whether the present study may be over pathologizing its presumably non clinical sample.

Implications

Despite limitations in interpreting the results of this study, this study has important clinical implications for those individuals working with victims of child

maltreatment as well as implications for researchers interested in examining the long-term effects of poly-victimization. Several of these implications are discussed next.

Clinical Implications

The high occurrence of childhood victimization and subsequently poly-victimization in this presumably high functioning sample of college undergraduates suggests that poly-victimization is a common experience in today's society. This finding supports the need for a comprehensive assessment of all victimization experiences when counselors and other professionals encounter an individual who reports experiencing some act of victimization. Too often mental health and medical professionals focus exclusively on one type of abuse (usually sexual or physical abuse) and fail to inquire about exposure to additional acts of victimization (e.g. witnessing domestic violence, bullying). When treatment planning, clinicians should make an effort to consider an individual's entire victimization history. The adult retrospective version of the JVQ, like the original child version, is an easily administered, comprehensive assessment tool for taking a victimization history that can highlight victimization experiences for further exploration in session.

For clinicians working with children, the knowledge that children exposed to one act of victimization are at a higher risk for exposure to additional acts of victimization may encourage clinicians to incorporate prevention efforts into their treatment planning. Additionally, the significant relation observed between poly-victimization and impairment in self-capacities may provide clinicians with another avenue to explore with their younger clients. The exact relation between poly-victimization, impaired self-

capacities and psychological distress is still unclear (e.g. whether poly-victimization causes impairment in self-capacities which leads to psychological distress; whether the development of self-capacities mediates the relation between poly-victimization and psychological distress). However, the knowledge that adult survivors of poly-victimization report impairment in their self-capacities suggests that efforts to assess a client's ability to connect with others, affect tolerance, and self worth may be warranted with children reporting some act of victimization. It is possible that working to strengthen a young client's self-capacities may prevent or lessen any further psychological distress they may experience later in life. Finally, although more research is still needed, it is reasonable to suggest that when working with adult survivors of poly-victimization, assessment of the client's self-capacities may prove useful in examining their strengths and resiliency.

Research Implications

The findings of the present study support previous arguments (Hamby & Finkelhor, 2000; Higgins & McCabe, 2001a; Saunders, 2003) emphasizing the importance of assessing or controlling for additional types of maltreatment when conducting research focusing on a particular type of victimization (i.e. sexual abuse). Again, the findings obtained here support the contention that individuals exposed to one act or type of victimization are often exposed to additional acts or types of victimization. Researchers interested in investigating the effects of one particular act or type of victimization should take care to assess for all possible acts of victimization participants may be exposed to. Including additional acts and/or types of victimization as control

variables in these studies will increase the researchers' confidence that their findings were truly due to the act or type of victimization in question and not the combination of the victimization and some unidentified victimization.

The present investigation provides tentative support for the use of the adult retrospective version of the JVQ to assess poly-victimization. In particular, this study has demonstrated the versatile nature of the JVQ in that multiple poly-victimization variables (e.g. continuous, categorical, acts, types) can be created. When using the JVQ to assess poly-victimization, researchers can use acts or types to classify poly-victims. Moreover, this measure can be used regardless of whether future researchers prefer to use Finkelhor et al.' (2009) or Higgins and McCabe's (2000a) method of assessing poly-victimization.

It is noteworthy that the types of victimization assessed by Higgins and McCabe and those assessed in the present study with the JVQ differ slightly. For example, the JVQ includes conventional crime as a victimization type and the Higgins and McCabe did not. Therefore, it does not appear that the specific types of maltreatment matter so much as the exposure to multiple acts of victimization in general. Stated differently, one does not have to be exposed to neglect, sexual, and physical abuse in order to be classified as a poly-victim and experience greater distress. Rather, a person could experience bullying, neglect, and witness parental abuse and report similar levels of distress. This implication is still tentative and requires further investigation and replication.

Finally, the tentative relation observed between poly-victimization and the development of self-capacities provides initial support for the application of

Constructivist Self-Development Theory as one explanation for the long-term effects of poly-victimization. Even though it is reasonable to presume that exposure to high levels of victimization or poly-victimization in childhood can lead to the underdevelopment of self-capacities which may then contribute to psychological distress in adulthood, such a causal relation cannot be drawn from the current data. As stated earlier, further research is needed to more clearly delineate the possible mediating and/or moderating effect of impaired self-capacities on the development of psychological distress in adult poly-victims.

Summary

The present investigation adds to the limited literature (Elliott et al., 2009; Finkelhor, Ormrod, et al., 2005a; Finkelhor et al., 2007a; Finkelhor et al., 2007b; Higgins & McCabe, 2000a; Richmond et al., 2009) supporting the common occurrence of poly-victimization. Researchers and clinicians alike (Hamby & Finkelhor, 2000; Higgins & McCabe, 2001a) have suggested that multiple types of maltreatment frequently co-occur and the findings of this investigation support that contention. Having established that poly-victimization is an important and common phenomenon, this study sought to explore several ways to measure and assess poly-victimization utilizing the retrospective version of the Juvenile Victimization Questionnaire.

In determining whether the method of utilizing acts of victimization or types of victimization was more effective in assessing poly-victimization, the results of this study were mixed. When assessing poly-victimization using continuous variables, the Continuous Act and Continuous Type variables both accounted for similar percentages of

variance in the outcome measures. When examining poly-victimization categorically and classifying participants into groups, again significant differences were observed using both acts and types of victimization to classify poly-victims. Although moderate to large effect sizes were observed for most of the group differences in psychological distress, utilizing acts of victimization to classify poly-victims yielded the highest effect sizes.

Regardless of the method used to measure poly-victimization and classify poly-victims, individuals identified as poly-victims reported greater psychological distress than did non poly-victims. Further, individuals experiencing poly-victimization reported greater psychological distress than did individuals experiencing lower levels of child maltreatment. Finally, in an effort to explore a theoretical explanation for the development of psychological distress in poly-victims a significant relation between poly-victimization and impaired development of self-capacities was observed. Results showed that poly-victims reported greater impairment in self-capacities (inner connection, affect tolerance, self-worth) than did non poly-victims. Moreover, poly-victims reported greater impairment in self-capacities than did victims of lower levels of child maltreatment victims. Although causal conclusions cannot be drawn from this investigation, these results represent a first step toward understanding why victims of poly-victimization may experience psychological distress in adulthood. Future researchers are encouraged to explore the relation between poly-victimization, psychological distress, and impaired self-capacities further with particular focus on possible mediating and moderating models.

REFERENCES

Alexander, P. C., Anderson, C. L., Brand, B., Schaeffer, C. M., Grellig, B. Z., Kretz, L. (1998). Adult attachment and long-term effects in survivors of incest. *Child Abuse & Neglect, 22,* 45-61.

Anton, W. D., & Reed, J. R. (1991). *Collge Adjustment Scales: Professional Manual*. Lutz, Florida: Psychological Assessment Resources, Inc.

Arata, C. M., Langhinrichsen-Rohling, J., Bowers, D., & Farrill-Swails, L. (2005). Single versus multi-type maltreatment: An examination of the long-term effects of child abuse. *Journal of Aggression, Maltreatment, & Trauma, 11*, 29-52.

Arnow, B. A., Hart, S., Scott, C., Dea, R., O'Connell, L., & Taylor, C. B. (1999). Childhood sexual abuse, psychological distress, and medical use among women. *Psychosomatic Medicine, 61*, 762 – 770.

Bailey, C. A., & Gibbons, S. G. (1989). Physical victimization and bulimic-like symptoms: Is there a relationship? *Deviant Behavior, 10*, 335-352.

Baker, R. W. & Siryk, B. (1999). *Student Adaptation to College Questionnaire: Manual*. Los Angeles, CA: Western Psychological Services.

Batten, S. V., Follette, V. M., & Aban, I. B. (2001). Experiential avoidance and high-risk sexual behavior in survivors of child sexual abuse. *Journal of Child Sexual Abuse, 10,* 101-120.

Beitchman, J. H., Zucker, K. J., Hood, J. E., DaCosta, G. A., Akman, D., & Cassavia, E. (1992). A review of the long-term effects of child sexual abuse. *Child Abuse & Neglect, 16,* 101-118.

Bernstein, D., & Fink, L. (1998). *Childhood Trauma Questionnaire: A retrospective self-report.* San Antonio, TX: The Psychological Corporation.

Bernstein, D. P., Fink, L., Handelsman, L., Foote, J., Lovejoy, M., Wenzel, K., et al. (1994). Initial reliability and validity of a new retrospective measure of child abuse and neglect. *The American Journal of Psychiatry, 151,* 1132-1136.

Bernstein, D. P., Stein, J. A., Newcomb, M. D., Walker, E., Pogge, D., Ahluvalia, T., et al. (2003). Development and validation of a brief screening version of the Childhood Trauma Questionnaire. *Child Abuse & Neglect, 27,* 169-190.

Bollen, K. A. (1989). *Structural equations with latent variables.* New York: Wiley.

Borooah, V. K. (2010). Gender differences in the incidence of depression and anxiety: Econometric evidence from the USA. *Journal of Happiness Studies, 11,* 663-682.

Briere, J. (1995). *Trauma symptom inventory professional manual*. Lutz, Fl: Psychological Assessment Resources.

Briere, J. (1996). Psychometric review of the Trauma Symptom Checklist-40. In B. H. Stamm (Ed.). *Measurement of stress, trauma, and adaptation*. Lutherville, MD: Sidran Press.

Briere, J. (2000). Inventory of Altered Self-*Capacities professional manual.* Odessa, Fl: Psychological Assessment Resources.

Briere, J., & Rickards, S. (2007). Self-awareness, affect regulation, and relatedness: Differential sequels of childhood versus adult victimization experiences. *The Journal of Nervous and Mental Disease, 195,* 497-503.

Briere, J., & Runtz, M. (1989). *Trauma Symptom Checklist-40*. Unpublished research instrument.

Briere, J., & Runtz, M. (1993). Childhood sexual abuse: Long-term sequelae and implications for psychological assessment. *Journal of Interpersonal Violence, 8,* 312-330.

Briere, J., & Runtz, M. (2002). The Inventory of Altered Self-Capacities (IASC): A standardized measure of identity, affect regulation, and relationship disturbance. *Assessment, 9,* 230-239.

Brockman, K. J., Pearlman, L. A., & Varra, E. M. (2006). Child maltreatment, self capacities, and trauma symptoms: Psychometric properties of the Inner Experience Questionnaire. *Journal of Emotional Abuse, 6,* 103-125.

Clemmons, J. C., Walsh, K., DiLillo, D., & Messman-Moore, T. L. (2007). Unique and combined contributions of multiple child abuse types and abuse severity to adult trauma symptomatology. *Child Maltreatment, 12,* 172-181.

Clum, G. A., Calhoun, K. S., & Kimerling, R. (2000). Associations among symptoms of depression and posttraumatic stress disorder and self-reported health in sexually assaulted women. *The Journal of Nervous and Mental Disease, 188,* 671 – 678.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Earlbaum Associates.

Cuevas, C. A., Finkelhor, D., Turner, H. A., & Ormrod, R. K. (2007). Juvenile delinquency and victimization: A theoretical typology. *Journal of Interpersonal Violence, 22,* 1581-1602.

Deiter, P. J., & Pearlman, L. A. (1999). *The Inner Experience Questionnaire*. South Windsor, CT: Trauma Stress Institute.

Deiter, P. J., Nicholls, S. S., & Pearlman, L. A. (2000). Self-injury and self capacities: Assisting an individual in crisis. *Journal of Clinical Psychology, 56,* 1173-1191.

Derogatis, L.R. (1994). *SCL-90-R: Administration, scoring and procedures manual*. Minneapolis: National Computer Systems, Inc.

DiLillo, D., & Long, P. J. (1999). Perceptions of couple functioning among female survivors of child sexual abuse. *Journal of Child Sexual Abuse, 7,* 59-76.

Dunn, G. E., Ryan, J. J., & Dunn, C. E. (1994). Trauma symptoms in substance abusers with and without histories of childhood abuse. *Journal of Psychoactive Drugs, 26,* 357-360.

Egeland, B., Carlson, E., Stroufe, L. A. (1993). Resilience as process. *Development and Psychopathology, 5,* 517-528.

Elam, G. A., & Kleist, D. M. (1999). Research on the long-term effects of child abuse. *The Family Journal: Counseling and Therapy for Couples and Families, 7,* 154-160.

Elliott, A. N., Alexander, A. A., Pierce, T. W., Aspelmeier, J. E., Richmond, J. M. (2009). Childhood victimization, poly-victimization, and adjustment to college in women. *Child Maltreatment, 14,* 330-343.

Elliott, D. M. (1992). *Traumatic Events Survey [Unpublished psychological test]*. Torrance, CA: Harbour-UCLA Medical Center.

Elliott, D. M. (1994). Impaired object relationships in professional women molested as children. *Psychotherapy, 31,* 79-86.

Elliot, D. M., & Briere, J. (1992). Sexual abuse trauma among professional women: Validating the Trauma Symptom Checklist – 40 (TSC-40). *Child Abuse & Neglect, 16,* 391-398.

Farber, E. A., & Egeland, B. (1987). Invulnerability among abused and neglected children. In E. J. Anthony, & B. J. Cohler (Eds.) *The invulnerable child*. (pp. 253-288). New York, NY: Guilford Press.

Finestone, H. M., Stenn, P., Davies, F., Stalker, C., Fry, R., & Koumanis, J. (2000). Chronic pain and health care utilization in women with a history of childhood sexual abuse. *Child Abuse & Neglect, 24,* 547 – 556.

Fink, L., Bernstein, D., Foote, J., Lovejoy, M., Ruggiero, J., & Handelsman, L. (1993). The Childhood Trauma Interview: Reliability, validity, and relationship to personality disorders. In proceedings of the Third National Congress on the Disorders of Personality. Roskilde, Denmark, International Society for the Study of Personality Disorders.

Finkelhor, D. (1994). Current information on the scope and nature of child sexual abuse. *The Future of Children – Sexual Abuse of Children, 4(2),* 31-53.

Finkelhor, D. (2002). Introduction. In J. Myers, L. Berliner, J. Briere, C. Hendrix, C. Jenny, & T. Reid (Eds.) *The APSAC handbook of child maltreatment* (pp. xi-xvi). Thousand Oaks, CA: Sage Publications.

Finkelhor, D., Hamby, S. L., Ormrod, R., & Turner, H. (2005). The Juvenile Victimization Questionnaire: Reliability, validity, and national norms. *Child Abuse & Neglect,* 29, 383-412.

Finkelhor, D., & Ormrod, R. (1999). *Juvenile crime victims known to the police: Dispatches from the emerging NIBRS system.* Durham, NH: Family Research Laboratory.

Finkelhor, D., Ormrod, R. K., & Turner, H. A. (2007a). Polyvictimization and trauma in a national longitudinal cohort. *Development and Psychopathology, 19,* 149-166.

Finkelhor, D., Ormrod, R. K., & Turner, H. A. (2007b). Poly-victimization: A neglected component in child victimization. *Child Abuse & Neglect, 31,* 7-26.

Finkelhor, D., Ormrod, R. K., & Turner, H. A. (2007c). Re-victimization patterns in a national longitudinal sample of children and youth. *Child Abuse & Neglect, 31,* 479-502.

Finkelhor, D., Ormrod, R. K., & Turner, H. A. (2009). Lifetime assessment of poly-victimization in a national sample of children and youth. *Child Abuse & Neglect, 33,* 403-411.

Finkelhor, D., Ormrod, R. K., Turner, H. A., & Hamby, S. L. (2005a). Measuring poly-victimization using the Juvenile Victimization Questionnaire. *Child Abuse & Neglect, 29,* 1297-1312.

Finkelhor, D., Ormrod, R., Turner, H., & Hamby, S. L. (2005b). The victimization of children and youth: A comprehensive, national survey. *Child Maltreatment, 10,* 5-25.

Flisher, A., J., Kramer, R. A., Hoven, C. W., Greenwald, S., Bird, H. R., Canino, G., Connell, R., & Moore, R. E. (1997). Psychosocial characteristics of physically abused children and adolescents. *Journal of American Academy of Child and Adolescent Psychiatry, 36*(1), 123-131.

Fox, K. M., & Gilbert, B. O. (1994). The interpersonal and psychological functioning of women who experienced childhood physical abuse, incest, and parental alcoholism. *Child Abuse & Neglect, 18,* 849-858.

Gauthier, L., Stollack, G., Messe, L., & Aronoff, J. (1996). Recall of childhood neglect and physical abuse as differential predictors of current psychological functioning. *Child Abuse & Neglect, 20,* 549-559.

Gold, S. N., Lucenko, B. A., Elhai, J. D., Swingle, J. M., & Sellers, A. H. (1999). A comparison of psychological/psychiatric symptomatology of women and men sexually abused as children. *Child Abuse & Neglect, 23,* 683-692.

Green, C.R., Flowe-Valencia, H., Rosenblum, L., & Tait, A.R. (1999). Do physical and sexual abuse differentially affect chronic pain states in women? *Journal of Pain and Symptom Management, 18,* 420 – 426.

Hamby, S. L., & Finkelhor, D. (2000). The victimization of children: Recommendations for assessment and instrument development. *Journal of the American Academy of Child and Adolescent Psychiatry, 39,* 829-840.

Hamby, S. L., Finkelhor, D., Ormrod, R., & Turner, H. (2005). *The Juvenile Victimization Questionnaire (JVQ): Administration and scoring manual.* Durham, NH: Crimes Against Children Research Center.

Hart, S. N., Brassard, M. R., Binggeli, N. J., & Davidson, H. A. (2002). Psychological Maltreatment. In J. Myers, L. Berliner, J. Briere, C. Hendrix, C. Jenny, & T. Reid (Eds.) *The APSAC handbook of child maltreatment* (pp. 79-103). Thousand Oaks, CA: Sage Publications.

Hatcher, L. (1994). *A step-by-step approach to using sas for factor analysis and structural equation modeling*. Cary, NC: SAS Institute.

Haugaard, J. J. (2000). The challenge of defining child sexual abuse. *American Psychologist, 55,* 1036-1039.

Heller, S. S., Larrieu, J. A., D'Imperio, R., & Boris, N. W. (1999). Research on resilience to child maltreatment: Empirical considerations. *Child Abuse & Neglect, 23,* 321-338.

Herman, J. L., & van der Kolk, B. (1987). Traumatic antecedents of borderline personality disorder. In B. van der Kolk (Ed.) *Psychological Trauma.* Washington, D.C.: American Psychiatric Press.

Higgins, D. J., & McCabe, M. P. (2000a). Multi-type maltreatment and the long-term adjustment of adults. *Child Abuse Review, 9,* 6-18.

Higgins, D. J., & McCabe, M. P. (2000b). Relationships between different types of maltreatment during childhood and adjustment in adulthood. *Child Maltreatment, 5,* 261-272.

Higgins, D. J., & McCabe, M. P. (2001a). Multiple forms of child abuse and neglect: adult retrospective reports. *Aggression and Violent Behavior, 6,* 547-578.

Higgins, D. J., & McCabe, M. P. (2001b). The development of the Comprehensive Child Maltreatment Scale. *Journal of Family Studies, 7,* 7-28.

Higgins, D. J., & McCabe, M. P. (2003). Maltreatment and family dysfunction in childhood and the subsequent adjustment of children and adults. *Journal of Family Violence, 18,* 107-120.

Higgins, D. J., McCabe, M. P., & Ricciardelli, L. A. (2003). Child maltreatment, family characteristics, and adult adjustment: Mediating and moderating processes. *Journal of Aggression, Maltreatment, & Trauma, 6,* 61-86.

Hildyard, K. L., & Wolfe, D. A. (2002). Child neglect: Developmental issues and outcomes. *Child Abuse & Neglect, 26,* 679-695.

Hulme, P. A. (2004). Retrospective measurement of childhood sexual abuse: A review of instruments. *Child Maltreatment, 9,* 201-217.

Janus, M., Burgess, A. W., & McCormack, A. (1987). Histories of sexual abuse in adolescent male runaways. *Adolescence, 22,* 405-416.

Jumper, S. A. (1995). A meta-analysis of the relationship of child sexual abuse to adult psychological adjustment. *Child Abuse & Neglect, 19,* 715-728.

Kaplan, S., Pelcovitz, D., Salzinger, S., Mandel, F. S., & Weiner, M. (1998). Adolescent physical abuse: Risk for adolescent psychiatric disorders. *American Journal of Psychiatry, 155*(7), 954-959.

Kendall-Tackett, K. A., Williams, L. M., & Finkelhor, D. (1993). Impact of sexual abuse on children: A review and synthesis of recent empirical studies. *Psychological Bulletin, 113,* 164-180.

Kinderman, C., Lynch, J., & Cantor, D. (1997). *Effects of the redesign of victimization estimates.* Washington, D. C.: U.S. Department of Justice.

Kline, R. B. (2005). *Principles and practice of structural equation modeling 2nd edition.* New York: Guilford Press.

Kolko, D. J. (2002). Child physical abuse. In J. Myers, L. Berliner, J. Briere, C. Hendrix, C. Jenny, & T. Reid (Eds.) *The APSAC handbook of child maltreatment* (pp. 21-54). Thousand Oaks, CA: Sage Publications.

Koss, M. P. (1996). The measurement of rape victimization in crime surveys. *Criminal Justice Behavior, 23,* 55-69.

Kurpius, S. E. R., Payakkakom, A., Rayle, A. D., Chee, C., & Arredondo, P. (2008). The appropriateness of using three measures of self-beliefs with European, Latino/a, and Native American college freshmen. *Journal of Multicultural Counseling and Development, 36,* 2-14.

Lerner, M. J., & Miller, D. T. (1978). Just world research and the attribution process: Looking back and ahead. *Psychological Bulletin, 85,* 1030-1051.

Leserman, J., Drossman, D.A., Li, Z., Toomey, T.C., Nachman, G., & Glogau, L. (1996). Sexual and physical abuse history in gastroenterology practice: How types of abuse impact health status. *Psychosomatic Medicine, 58,* 4 – 15.

Leserman, J., Li, Z., Drossman, D.A., & Hu, Y.J.B. (1998). Selected symptoms associated with sexual and physical abuse history among female patients with gastrointestinal disorders: The impact on subsequent health care visits. *Psychological Medicine, 28,* 417 – 425.

Makambi, K. H., Williams, C. D., Taylor, T. R., Rosenberg, L., & Adams-Campbell, L. L. (2009). An assessment of the CES-D scale factor structure in black women: The black women's health study. *Psychiatry Research, 168,* 163-170.

Malinosky-Rummel, R., & Hansen, D. J. (1993). Long-term consequences of childhood physical abuse. *Psychological Bulletin, 114,* 68-79.

Manly, J. T. (2005). Advances in research definitions of child maltreatment. *Child Abuse & Neglect, 29,* 425-439.

Marcus, S. M., Young, E. A., Kerber, K. B., Kornstein, S., Farabaugh, A. H., Mitchell, J., et al. (2005). Gender differences in depression: Findings from the STAR*D study. *Journal of Affective Disorders, 87,* 141-150.

Martsolf, D. S., Draucker, C. B., & Chapman, T. R. (2004). The physical health of women in primary care who were maltreated as children. *Journal of Emotional Abuse, 4,* 39-59.

Masten, A. S., & Wright, M. O. (1998). Cumulative risk and protection models of child maltreatment. *Journal of Aggression, Maltreatment & Trauma, 2*(1), 7-30.

McCann, L. I. & Pearlman, L. A. (1990). *Psychological trauma and the adult survivor: Theory, therapy, and transformation*. New York, NY: Brunner/Mazel.

McLean, C. P., & Anderson, E. R. (2009). Brave men and Timid women? A review of the gender differences in fear and anxiety. *Clinical Psychology Review, 29,* 496-505.

Messman-Moore, T. L., & Coates, A. A. (2007). The impact of childhood psychological abuse on adult interpersonal conflict: The role of early maladaptive schemas and patterns of interpersonal behavior. *Journal of Emotional, 7,* 75-92.

Messman-Moore, T. L., & Garrigus, A. S. (2007). The association of child abuse and eating disorder symptomatology: The importance of multiple forms of abuse and revictimization. *Journal of Aggression, Maltreatment, and Trauma, 14,* 51-72.

Moeller, T. P., Bachman, G., & Moeller, J. R. (1993). The combined effects of physical, sexual, and emotional abuse during childhood: Long-term health consequences for women. *Child Abuse & Neglect, 17,* 623-640.

Mullen, P. E., Martin, J. L., Anderson, J. C., Romans, S. E., & Herbison, G. P. (1994). The effect of child sexual abuse on social, interpersonal, and sexual function in adult life. *British Journal of Psychiatry, 165,* 35-47.

Myers, J., Berliner, L., Briere, J., Hendrix, C., Jenny, C., & Reid, T. (2002). *The APSAC handbook on child maltreatment (2nd Edition).* Thousand Oaks, CA: Sage Publications.

Nash, M. R., Hulsey, T. L., Sexton, M. C., Harralson, T. L., & Lambert, W. (1993). Long-term sequelae of childhood sexual abuse: Perceived family environment, psychopathology, and dissociation. *Journal of Consulting and Clinical Psychology, 61,* 276-283.

Neumann, D. A., Houskamp, B. M., Pollock, V. E., & Briere, J. (1996). The long-term sequelae of childhood sexual abuse in women: A meta-analytic review. *Child Maltreatment, 1,* 6-16.

Newman, M.G., Clayton, L., Zuellig, A., Cashman, L., Arnow, B., Dea, R., & Taylor, B. (2000). The relationship of childhood sexual abuse and depression with somatic symptoms and medical utilization. *Psychological Medicine, 30,* 1063 – 1077.

Ney, P. G., Fung, T., Wickett, A. R. (1994). The worst combinations of child abuse and neglect. *Child Abuse & Neglect, 18,* 704-714.

Pearlman, L. A. (1998). Trauma and the self: A theoretical and clinical perspective. *Journal of Emotional Abuse, 1,* 7-25.

Pearlman, L. A., & Saakvitne, K. W. (1995). Trauma and the therapist: Countertransference and vicarious traumatization in psychotherapy with incest survivors. New York, NY: W.W. Norton & Co.

Pedhazur, E. J., & Schmelkin, L. P. (1991). *Measurement, design, and analysis: An integrated approach.* Hillsdale, NJ: Lawrence Erlbaum Associates Inc. Publishers.

Polusny, M. A., Rosenthal, M. Z., Aban, I., & Follette, V. M. (2004). Experiential avoidance as a mediator of the effects of adolescent sexual victimization on negative adult outcomes. *Violence and Victims, 19,* 109-120.

Radloff, L. S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1,* 385.401.

Richmond, J. M., Elliott, A. N., Pierce, T. W., & Aspelmeier, J. E. (2006). Long-term effects of child sexual abuse and poly-victimization: The decline of physical health and increase of psychological distress in college age women. Unpublished Masters Thesis. Radford, VA: Radford Univeristy

Richmond, J. M., Elliott, A. N., Pierce, T. W., Aspelmeier, J. E., Alexander, A. A. (2009). Polyvictimization, childhood victimization, and psychological distress in college women. *Child Maltreatment, 14,* 127-147.

Rosenberg, M. (1965). *Society and adolescent self-image.* Princeton, NJ: Princeton University Press.

Rosenberg, M. (1986). *Conceiving the Self.* Malabar, FL: Krieger.

Sachs-Ericsson, N., Blazer, D., Plant, E.A., & Arnow, B. (2005). Childhood sexual and physical abuse and the 1-year prevalence of medical problems in the national comorbidity survey. *Health Psychology, 24,* 32 – 40.

Sanders, B. & Becker-Lausen, E. (1995). The measurement of psychological maltreatment: Early data on the child abuse and trauma scale. *Child Abuse and Neglect, 19,* 315-323.

Saunders, B. E. (2003). Understanding children exposed to violence: Toward an integration of overlapping fields. *Journal of Interpersonal Violence, 183,* 356–376.

Steel, J., Sanna, L., Hammond, B., Whipple, J., & Cross, H. (2004). Psychological sequelae of childhood sexual abuse: Abuse-related characteristics, coping strategies, and attributional style. *Child Abuse & Neglect, 28,* 785-801.

Thomlison, B. (1997). Risk and protective factors in child maltreatment. In Fraser, M.W. (Ed.) Risk and resilience in childhood: An ecological perspective. Washington, DC: NASW Press.

Thompson, B. (2004). *Exploratory and confirmatory factor analysis: Understanding concepts and applications.* Washington, DC: APA.

Turner, H. A., Finkelhor, D., & Ormrod, R. (2006). The effect of lifetime victimization on the mental health of children and adolescents. *Social Science & Medicine, 62,* 13-27.

U.S. Department of Health and Human Services, Administration on Children, Youth and families. (2009). *Child maltreatment 2007.* Washington, D.C.: Government Printing Office.

U.S. Department of Health and Human Services, Office on Child Abuse and Neglect. (2003). *A coordinated response to child abuse and neglect: The foundation for practice*. Fairfax, VA: Caliber Associates.

U.S. Department of Justice. (1994). *Technical background on the redesigned national crime victimization survey.* Washington, D.C.: U.S. Department of Justice.

Varia, R., Abidin, R. R., & Dass, P. (1996). Perceptions of abuse: Effects on adult psychological and social adjustment. *Child Abuse & Neglect, 6,* 511-526.

Wallace, B. C. (1990). Crack cocaine smokers as adult children of alcoholics: The dysfunctional family link. *Journal of Substance Abuse Treatment, 7,* 89-100.

Wells, L. E., & Rankin, J. H. (1995). Juvenile victimization: Convergent validation of alternative measurements. *Journal of Research in Crime and Delinquency, 32,* 287-307.

Westen, D., Ludolph, P., Block, J., Wixom, J., & Weiss, F. C. (1990). Developmental history and object relations in psychiatrically disturbed adolescent girls. *American Journal of Psychiatry, 147,* 1061-1068.

Wilkenson-Ryan, T., & Westen, D. (2000). Identity disturbance in borderline personality disorder: An empirical investigation. *American Journal of Psychiatry, 157,* 528-541.

Wirtz, P. W., & Harrell, A. V. (1987). Assaultive versus nonassaultive victimization. *Journal of Interpersonal Violence, 2,* 264-277.

Wolfe, D. A., & McGee, R. A. (1994). Dimensions of child maltreatment and their relationship to adolescent adjustment. *Development & Psychopathology, 6,* 165-181.

Zlotnick, C., Shea, M. T., Begin, A., Pearlstein, T., Simpson, E., & Costello, E. (1996). The validation of the Trauma Symptom Checklist-40 (TSC-40) in a sample of inpatients. *Child Abuse & Neglect, 20,* 503-510.

APPENDICES

APPENDIX A

INFORMED CONSENT FORM

Dear Student,

You are invited to participate in a research project being conducted by Jessica Moeller, a doctoral candidate in Counseling Psychology at The University of Akron.

Title of Study: Conceptualizing Poly-Victimization: Exploring the Long-Term Effects Utilizing Constructivist Self-Development Theory

Purpose: The purpose of this project is to explore alternative ways of measuring poly-victimization (i.e. exposure to multiple acts of victimization in childhood) utilizing a relatively new measure: The Juvenile Victimization Questionnaire. This study will also explore the long-term effects of poly-victimization. An estimated 240 students will participate in this study.

Procedures: Should you decide to participate, you will be asked to complete several questionnaires that are designed to measure childhood experiences, inner experiences, psychological distress, and brief demographic questions. Completion of this survey should take about 35-45 minutes.

Eligibility: You are eligible to participate in this study if you are a college student currently enrolled in at least one academic course, have access to a computer, and are between the ages of 18 and 24.

Risks and Discomforts: There are minimal foreseeable risks for participating in this study. These risks may be associated with the process of recalling sensitive information related to stressful events or situations you may have experienced in childhood. In the event that you feel emotionally distressed by participation in this study, we encourage you to call Student Counseling Services at your respective University. Contact information for these services will be provided at the end of the survey.

Benefits: You will receive no direct benefit from your participation in this study, but your participation may help us better understand how to measure poly-victimization, as well as to better understand the long-term effects of poly-victimization in childhood.

Incentive to Participants: If you are a student at the University of Akron you will receive extra credit for your participation in this study and will be provided with an opportunity to enter your email address in order to receive this incentive. If you are a student at another University, at the end of the survey, you will be directed to a page where you can chose to enter your email address to be included in a drawing for one of three $100 gift certificates to Amazon.com.

Right to refuse or withdraw: Your participation in this research is voluntary and you may refuse to participate or discontinue participation at any time, without penalty or loss of benefits to which you are otherwise entitled.

Anonymous Data Collection: This survey is anonymous and confidential, meaning that no identifying information will be collected and your responses will not be linked to your name or any identifying information. Also, findings will be reported only in aggregate form. No institution or program will be identified in any presentation of the research findings.

Who to contact with questions: If you have any questions concerning this study, you can contact me at jmr1@zips.uakron.edu or my faculty advisor, Dr. James R. Rogers, at jrr1@uakron.edu or at (330) 972-8635. This study is approved by the Institutional Review Board for the Protection of Human Subjects at The University of Akron. Questions regarding human subjects' rights can also be directed to the UA Institutional Review Board, Office of Research Services and Sponsored Programs, (330) 972-7666 or 1-888-232-8790.

Acceptance & signature: I have read the information provided. I voluntarily agree to participate in this study. My completion of this survey will serve as my consent. I may print a copy of this consent statement for future reference. Please click on the "Continue to Next Page" to start the survey!

APPENDIX B

INFORMATION REGARDING COUNSELING SERVICES

Thank you for your participation in this study. If you experienced emotional distress as you were completing this survey, I strongly urge you to seek attention from a mental health professional.

The University of Akron
Counseling Center
Simmons Hall Rooms 304 and 306
(330) 972-7082 or (330) 972-7083

Radford University
Student Counseling Services
Lower Level of Tyler Hall
(540) 831-5226

SUNY University of Buffalo
Counseling Services
120 Richmond Quad
(716) 645-2720

APPENDIX C

DEMOGRAPHIC QUESTIONNAIRE

1. Age: _____

2. Sex:
   a. Female
   b. Male

3. Class standing:

   a. 1st Year
   b. 2nd Year
   c. 3rd Year
   d. 4th Year
   e. 5th Year or higher

4. Ethnic background:

   a. Caucasian
   b. African-American
   c. Hispanic/Latino/Chicano
   d. Asian/Pacific Islander
   e. American Indian
   f. Biracial/Multiracial
   g. Other: _____

5. Which best describes your current relationship status:

   a. Single
   b. Dating but not living together
   c. Living together
   d. Married
   e. Separated
   f. Divorced
   e. Widowed

6a. What was the highest level of education completed by your mother?

a. Did not complete High School
b. Completed High School
c. Completed College
d. Completed a Graduate Degree
e. I do not know

6b. What was the highest level of education completed by your father?

a. Did not complete High School
b. Completed High School
c. Completed College
d. Completed a Graduate Degree
e. I do not know

7. Which best describes your living situation while growing up?

a. I lived with both biological parents together.
b. I lived with one biological parent. (Please specify which one _____)
c. I lived with one biological parent and one step-parent. (Please specify which one_____)
d. I sometimes lived with one biological parent and sometimes lived with the other.
e. I lived with adopted parents.
f. I lived with foster parents.
g. Other (please describe) _____

8a. Are your parents divorced?

a. No
b. Yes

8b. If yes, how old were you when they divorced? _____

9a. Is your mother alive?

a. No
b. Yes

9b. If no, how old were you when she died? _____

10a. Is your father alive?

a. No
b. Yes

10b. If no, how old were you when he died? _____

11. Who was the major financial support of your household up to the time you turned 16 years of age?

a. Natural Father
b. Natural Mother
c. Other Male
d. Other Female
e. Other (Specify): _____

12a. Compared with the average family in your community at the time you were growing up, were you a) better off financially,
b) about average, or c) worse off during most of your childhood?

a. Better off
b. About average
c. Worse off

12b. If you chose "worse off", was that a) a lot worse off, b) some-what, or c) just a little worse off?

a. A lot
b. Some-what
c. A little

13. How much conflict and tension was there in your household while you were growing up – a) a lot, b) some, c) a little, or d) none?

a. A lot
b. Some
c. A little
d. None

14. Have you ever received psychotherapy or psychiatric treatment?

a. No
b. Yes

15a. Are you currently receiving psychotherapy or psychiatric treatment?

a. No
b. Yes

15b. If yes, what was/is the treatment for? _____

APPENDIX D

JUVENILE VICTIMIZATION QUESTIONNAIRE

(JVQ; HAMBY ET AL., 2005)

These are questions about some things that might have happened during your childhood. Your "childhood" begins when you are born and continues through age 17. It might help to take a minute and think about the different schools you attended, different places you might have lived, or different people who took care of you during your childhood. Try your best to think about your entire childhood as you answer these questions.

1) When you were a child, did anyone use force to take something away from you that you were carrying or wearing?

   a. 1 time
   b. 2 times
   c. 3 times
   d. 4 times
   e. 5 times or more
   f. No

2) When you were a child, did anyone steal something from you and never give it back? Things like a backpack, money, watch, clothing, bike, stereo, or anything else?

   a. 1 time
   b. 2 times
   c. 3 times
   d. 4 times
   e. 5 times or more
   f. No

3) When you were a child, did anyone break or ruin any of your things on purpose?

   a. 1 time
   b. 2 times

c. 3 times
d. 4 times
e. 5 times or more
f. No

4) Sometimes people are attacked WITH sticks, rocks, guns, knives, or other things that would hurt. When you were a child, did anyone hit or attack you on purpose WITH an object or weapon? Somewhere like: at home, at school, at a store, in a car, on the street, or anywhere else?

a. 1 time
b. 2 times
c. 3 times
d. 4 times
e. 5 times or more
f. No

5) When you were a child, did anyone hit or attack you WITHOUT using an object or weapon?

a. 1 time
b. 2 times
c. 3 times
d. 4 times
e. 5 times or more
f. No

6) When you were a child, did someone start to attack you, but for some reason, it didn't happen? For example, someone helped you or you got away?

a. 1 time
b. 2 times
c. 3 times
d. 4 times
e. 5 times or more
f. No

7) When you were a child, did anyone try to kidnap you?

a. 1 time
b. 2 times
c. 3 times
d. 4 times
e. 5 times or more

f. No

8) When you were a child, were you hit or attacked because of your skin color, religion, or where your family comes from? Because of a physical problem you have? Or because someone said you are gay?

a. 1 time
b. 2 times
c. 3 times
d. 4 times
e. 5 times or more
f. No

Next, we ask about grown-ups **who took care of you** when you were a child (age 0 to 17). This means parents, babysitters, adults who live with you, or others who watch you.

9) Not including spanking on your bottom, when you were a child, did a grown-up in your life hit, beat, kick, or physically hurt you in any way?

a. 1 time
b. 2 times
c. 3 times
d. 4 times
e. 5 times or more
f. No

10) When you were a child, did you get scared or feel really bad because grown-ups in your life called you names, said mean things to you, or said they didn't want you?

a. 1 time
b. 2 times
c. 3 times
d. 4 times
e. 5 times or more
f. No

11) When someone is neglected, it means that the grown-ups in their life didn't take care of them the way they should. They might not get them enough food, take them to the doctor when they are sick, or make sure they have a safe place to stay. When you were a child, did you get neglected?

a. 1 time
b. 2 times
c. 3 times
d. 4 times
e. 5 times or more
f. No

12) Sometimes a family fights over where a child should live. When you were a child, did a parent take, keep, or hide you to stop you from being with another parent?

a. 1 time
b. 2 times
c. 3 times
d. 4 times
e. 5 times or more
f. No

13) Sometimes groups of kids or gangs attack people. When you were a child, did a group of kids or a gang hit, jump, or attack you?

a. 1 time
b. 2 times
c. 3 times
d. 4 times
e. 5 times or more
f. No

14) When you were a child, did any kid, even a brother or sister, hit you? Somewhere like: at home, at school, out playing, in a store, or anywhere else?

a. 1 time
b. 2 times
c. 3 times
d. 4 times
e. 5 times or more
f. No

15) When you were a child, did any kids try to hurt your private parts on purpose by hitting or kicking you there?

a. 1 time
b. 2 times
c. 3 times
d. 4 times

e. 5 times or more
f. No

16) When you were a child, did any kids, even a brother or sister, pick on you by chasing you or grabbing your hair or clothes or by making you do something you didn't want to do?

a. 1 time
b. 2 times
c. 3 times
d. 4 times
e. 5 times or more
f. No

17) When you were a child, did you get scared or feel really bad because kids were calling you names, saying mean things to you, or saying they didn't want you around?

a. 1 time
b. 2 times
c. 3 times
d. 4 times
e. 5 times or more
f. No

18) When you were a child, did a boyfriend or girlfriend or anyone you went on a date with slap or hit you?

a. 1 time
b. 2 times
c. 3 times
d. 4 times
e. 5 times or more
f. No

19) When you were a child, did a grown-up YOU KNOW touch your private parts when you didn't want it or make you touch their private parts? Or did a grown-up YOU KNOW force you to have sex?

a. 1 time
b. 2 times
c. 3 times
d. 4 times
e. 5 times or more

f. No

20) When you were a child, did a grown-up you did NOT KNOW touch your private parts when you didn't want it, make you touch their private parts or force you to have sex?

a. 1 time
b. 2 times
c. 3 times
d. 4 times
e. 5 times or more
f. No

21) Now think about kids your age, like from school, a boy friend or girl friend, or even a brother or sister. When you were a child, did another child or teen make you do sexual things?

a. 1 time
b. 2 times
c. 3 times
d. 4 times
e. 5 times or more
f. No

22) When you were a child, did anyone TRY to force you to have sex, that is sexual intercourse of any kind, even if it didn't happen?

a. 1 time
b. 2 times
c. 3 times
d. 4 times
e. 5 times or more
f. No

23) When you were a child, did anyone make you look at their private parts by using force or surprise, or by "flashing" you?

a. 1 time
b. 2 times
c. 3 times
d. 4 times
e. 5 times or more
f. No

24) When you were a child, did anyone hurt your feelings by saying or writing something sexual about you or your body?

a. 1 time
b. 2 times
c. 3 times
d. 4 times
e. 5 times or more
f. No

Sometimes these things don't happen to you but you see them happen to other people.

25) When you were a child, did you SEE one of your parents get hit by another parent, or their boyfriend or girlfriend? How about slapped, punched, or beat up?

a. 1 time
b. 2 times
c. 3 times
d. 4 times
e. 5 times or more
f. No

26) When you were a child, did you SEE your parent hit, beat, kick, or physically hurt your brothers or sisters, not including a spanking on the bottom?

a. 1 time
b. 2 times
c. 3 times
d. 4 times
e. 5 times or more
f. No

27) When you were a child, in real life, did you SEE anyone get attacked on purpose WITH a stick, rock, gun, knife, or other thing that would hurt? Somewhere like: at home, at school, at a store, in a car, on the street, or anywhere else?

a. 1 time
b. 2 times
c. 3 times
d. 4 times
e. 5 times or more

f. No

28) When you were a child, in real life, did you SEE anyone get attacked or hit on purpose WITHOUT using a stick, rock, gun, knife, or something that would hurt?

a. 1 time
b. 2 times
c. 3 times
d. 4 times
e. 5 times or more
f. No

29) When you were a child, did anyone steal some thing from your house that belonged to your family or someone you lived with? Things like a TV, stereo, car, or anything else?

a. 1 time
b. 2 times
c. 3 times
d. 4 times
e. 5 times or more
f. No

30) When you were a child, was anyone close to you murdered, like a friend, neighbor or someone in your family?

a. 1 time
b. 2 times
c. 3 times
d. 4 times
e. 5 times or more
f. No

31) When you were a child, did you SEE someone murdered in real life? This means not on TV, video games, or in the movies?

a. 1 time
b. 2 times
c. 3 times
d. 4 times
e. 5 times or more
f. No

32) When you were a child, were you in any place in real life where you could see or hear people being shot, bombs going off, or street riots?

a. 1 time
b. 2 times
c. 3 times
d. 4 times
e. 5 times or more
f. No

33) When you were a child, were you in the middle of a war where you could hear real fighting with guns or bombs?

a. 1 time
b. 2 times
c. 3 times
d. 4 times
e. 5 times or more
f. No

APPENDIX E

INNER EXPERIENCE QUESTIONNAIRE

(IEQ; DEITER & PEARLMAN, 1999)

Please read the following statements and think about your own experience. On the line before each statement, write the number that shows how much you agree or disagree with the statement.

1 – Disagree Strongly
2 – Disagree
3 – Disagree Somewhat
4 – Agree Somewhat
5 – Agree
6 – Strongly Agree

_____1. I know that my feelings will not destroy me
_____2. I have a place in this world
_____3. When I'm alone, I'm not aware of other people's love
_____4. I have to get away from strong feelings
_____5. I have a positive sense of self
_____6. I often feel a deep sense of aloneness
_____7. I can make sense of my feelings
_____8. I am a person who is bad for the world
_____9. When I'm alone, I feel desolate
_____10. I'm too ashamed of myself to let people get to know me
_____11. I deserve to be alive
_____12. I am an island, unconnected to others
_____13. When I'm upset, I can soothe myself gently
_____14. When I make a mistake, I feel worthless
_____15. Knowing someone loves me comforts me
_____16. I feel angry much of the time
_____17. Maybe I should not have been born

_____18. When I feel bad, I can think of someone who believes I'm worthwhile
_____19. If I let myself cry I'll never stop
_____20. I deserve to be loved
_____21. I need frequent reminders of others' caring
_____22. If I don't follow my own rules, my feelings will be out of control
_____23. I am toxic to others
_____24. I know there is someone who cares about me

APPENDIX F

THE CENTER FOR EPIDEMIOLOGIC STUDIES – DEPRESSION SCALE

(CES-D; RADLOFF, 1977)

Below is a list of the ways you might have felt or behaved. Please indicate how frequently you have felt this way **during the past week.**

0 = Rarely or none of the time (less than 1 day)
1 = Some or a little of the time (1-2 days)
2 = Occasionally or a moderate amount of time (3-4 days)
3 = Most of all of the time (5-7 days)

1. I was bothered by things that usually don't bother me.	0	1	2	3
2. I did not feel like eating; my appetite was poor.	0	1	2	3
3. I felt that I could not shake off the blues even with help from my family and friends.	0	1	2	3
4. I felt I was just as good as other people.	0	1	2	3
5. I had trouble keeping my mind on what I was doing.	0	1	2	3
6. I felt depressed.	0	1	2	3
7. I felt that everything I did was an effort.	0	1	2	3
8. I felt hopeful about the future.	0	1	2	3
9. I thought my life had been a failure	0	1	2	3
10. I felt fearful.	0	1	2	3
11. My sleep was restless.	0	1	2	3
12. I was happy.	0	1	2	3
13. I talked less than usual.	0	1	2	3
14. I felt lonely.	0	1	2	3
15. People were unfriendly.	0	1	2	3
16. I enjoyed life.	0	1	2	3
17. I had crying spells.	0	1	2	3
18. I felt sad.	0	1	2	3
19. I felt that people dislike me.	0	1	2	3
20. I could not get "going."	0	1	2	3

APPENDIX G

ROSENBERG SELF-ESTEEM SCALE

(RSES; ROSENBERG, 1965)

Instructions: Below is a set of statements dealing with your general feelings about yourself. If you strongly agree, mark SA. If you agree with the statement, mark A. If you disagree, mark D. If you strongly disagree, mark SD.

1. On a whole, I am satisfied with myself.	SA	A	D	SD
2. At times, I think I am no good at all.	SA	A	D	SD
3. I feel that I have a number of good qualities.	SA	A	D	SD
4. I am able to do things as well as most other people.	SA	A	D	SD
5. I feel I do not have much to be proud of.	SA	A	D	SD
6. I certainly feel useless at times.	SA	A	D	SD
7. I feel that I'm a person of worth, at least on an equal plane with others.	SA	A	D	SD
8. I wish I could have more respect for myself.	SA	A	D	SD
9. All in all, I am inclined to feel that I am a failure.	SA	A	D	SD
10. I take a positive attitude toward myself.	SA	A	D	SD

APPENDIX H

TRAUMA SYMPTOM CHECKLIST – 40

(TSC-40; BRIERE & RUNTZ, 1989)

How often have you experienced each of the following in the last two months?

	0 = Never 3 = Often
1. Headaches	0 1 2 3
2. Insomnia (trouble getting to sleep)	0 1 2 3
3. Weight Loss (without dieting)	0 1 2 3
4. Stomach problems	0 1 2 3
5. Sexual Problems	0 1 2 3
6. Feeling isolated from others	0 1 2 3
7. “Flashbacks” (sudden, vivid, distracting memories)	0 1 2 3
8. Restless sleep	0 1 2 3
9. Low sex drive	0 1 2 3
10. Headaches	0 1 2 3
11. Anxiety Attacks	0 1 2 3
12. Sexual Overactivity	0 1 2 3
13. Loneliness	0 1 2 3
14. “Spacing out” (going away in your mind)	0 1 2 3
15. Sadness	0 1 2 3

16.	Dizziness	0	1	2	3
17.	Not feeling satisfied with your sex life	0	1	2	3
18.	Trouble controlling your temper	0	1	2	3
19.	Waking up early in the morning and can't get back to sleep	0	1	2	3
20.	Uncontrollable crying	0	1	2	3
21.	Fear of men	0	1	2	3
22.	Not feeling rested in the morning	0	1	2	3
23.	Having sex that you didn't enjoy	0	1	2	3
24.	Trouble getting along with others	0	1	2	3
25.	Memory problems	0	1	2	3
26.	Desire to physically hurt yourself	0	1	2	3
27.	Fear of women	0	1	2	3
28.	Waking up in the middle of the night	0	1	2	3
29.	Bad thoughts or feelings during sex	0	1	2	3
30.	Passing out	0	1	2	3
31.	Feeling that things are "unreal"	0	1	2	3
32.	Unnecessary or over-frequent washing	0	1	2	3
33.	Feelings of inferiority	0	1	2	3
34.	Feeling tense all the time	0	1	2	3
35.	Being confused about your sexual feelings	0	1	2	3
36.	Desire to physically hurt others	0	1	2	3
37.	Feelings of guilt	0	1	2	3
38.	Feelings that you are not always in your body	0	1	2	3

39. Having trouble breathing	0	1	2	3
40. Sexual feelings when you shouldn’t have them	0	1	2	3

APPENDIX I

HUMAN SUBJECTS APPROVAL

NOTICE OF APPROVAL

May 20, 2010

To: Jessica Moeller
4085 Beverly Hills Dr.
Brunswick, OH 44212

From: Sharon McWhorter, IRB Administrator

Re: IRB Number 20100507 *"Conceptualizing Poly-Victimization: Exploring the Long-Term Effects Utilizing Constructivist Self-Development Theory"*

Thank you for submitting an IRB Application for Review of Research Involving Human Subjects for the referenced project. Your protocol represents minimal risk to subjects and has been approved under Expedited Category #7.

Approval Date:	May 20, 2010
Expiration Date:	May 6, 2011
Continuation Application Due:	May 20, 2011

In addition, the following is/are approved:

O Waiver of documentation of consent

O Waiver or alteration of consent

O Research involving children

O Research involving prisoners

Please adhere to the following IRB policies:

- IRB approval is given for not more than 12 months. If your project will be active for

longer than one year, it is your responsibility to submit a continuation application prior to the expiration date. We
request submission two weeks prior to expiration to insure sufficient time for review.

- A copy of the approved consent form must be submitted with any continuation application.

- If you plan to make any changes to the approved protocol you must submit a
- continuation
  application for change and it must be approved by the IRB before being implemented.
  - Any adverse reactions/incidents must be reported immediately to the IRB.
- If this research is being conducted for a master's thesis or doctoral dissertation, you must file acopy of this letter with the thesis or dissertation.
  - When your project terminates you must submit a Final Report Form in order to close your IRB file.

Additional information and all IRB forms can be accessed on the IRB
web site at:
http://www.uakron.edu/research/orssp/compliance/IRBHome.php

Cc: James Rogers- Advisor [>3 Approved consent form/s enclosed
Cc: Stephanie Woods - IRB Chair

Office of Research Services and Sponsored Programs
Akron, OH 44325-2102 330-
972-7666 • 330-972-6281 Fax