

City University of New York (CUNY)

CUNY Academic Works

All Dissertations, Theses, and Capstone
Projects

Dissertations, Theses, and Capstone Projects

5-2015

Psychosocial Sequelae Of Homicide Among Murder Victims' Family Members: An Appraisal Of Depression, Grief, And Posttraumatic Stress

Sarah Kopelovich

Graduate Center, City University of New York

[How does access to this work benefit you? Let us know!](#)

More information about this work at: https://academicworks.cuny.edu/gc_etds/1011

Discover additional works at: <https://academicworks.cuny.edu>

This work is made publicly available by the City University of New York (CUNY).
Contact: AcademicWorks@cuny.edu

PSYCHOSOCIAL SEQUELAE OF HOMICIDE AMONG MURDER VICTIMS' FAMILY
MEMBERS: AN APPRAISAL OF DEPRESSION, GRIEF, AND POSTTRAUMATIC STRESS

by

SARAH L. KOPELOVICH

A dissertation submitted to the Graduate Faculty in Clinical Psychology in partial
fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of
New York

2015

© 2015
SARAH L. KOPELOVICH
All Rights Reserved

This manuscript has been read and accepted for the
Graduate Faculty in Clinical Psychology in satisfaction of the
Dissertation requirement for the degree of Doctor of Philosophy.

L. Thomas Kucharski, Ph.D.

Date

Chair of Examining Committee

Joshua Brumberg, Ph.D.

Date

Executive Officer

Philip T. Yanos, Ph.D.

Elizabeth Jeglic, Ph.D.

Philip Erdberg, Ph.D.

William Bowers, Ph.D.
Supervisory Committee

THE CITY UNIVERSITY OF NEW YORK

Abstract

PSYCHOSOCIAL SEQUELAE OF HOMICIDE AMONG MURDER VICTIMS' FAMILY MEMBERS: AN APPRAISAL OF DEPRESSION, GRIEF, AND POSTTRAUMATIC STRESS

by

Sarah L. Kopelovich

Adviser: Professor L. Thomas Kucharski

The current investigation explored what is known regarding the psychological sequelae of the post-homicide experience for murder victims' family members and friends (MVFM).

Participants were also asked about whether they felt they had attained closure, a term which populates anecdotal and theoretical accounts of MVFM's experience. Previous literature guided a theoretical definition of closure as a dimensional construct that represents adaptive functioning following a murder, and includes (1) absence of disabling symptomatology, (2) absence of ruminations about the event or murder victim, and (3) subjective return to baseline functioning.

This quasi-experiment consisted of a between-subjects cross-sectional design. The dependent variable (DV) was the post-homicide psychological functioning of the participant, consisting of (1) depressive, posttraumatic stress, and complicated grief symptomatology as well as (2) self-reports of closure. The independent variable (IV) is the perpetrators' case disposition.

Participants ($N = 92$) were recruited via organizations that serve MVFM as well as a sample of MVFM selected from a random sample of death row inmates. All participants were administered a structured interview and standardized psychodiagnostic measures by telephone. Of the total sample, 33% of the participants' offenders were sentenced to LWOP, 25% to death (25.0%), 14.1% to a sentence less than LWOP, and 2.2% were found Not Guilty By Reason of Insanity. Twenty-three (25.0%) participants' offenders did not qualify for a penal sentence, as the case

was unsolved ($n = 10$), the trial or sentencing phase was in process ($n = 7$), or the offender took his or her own life during the course of the murder ($n = 4$). Participants were, on average, approximately 15 years post-homicide at the time of the interview. Participants were diverse with regard to age and geography, but were disproportionately female (83.7%) and Caucasian (81.5%). The results of the current study indicated that participants were highly symptomatic, with particularly high rates of Posttraumatic Stress Disorder and Complicated Grief. Few MVFM were amenable to endorsing closure regardless of penal sentence. Sentence of the offender was correlated with PTSD scores and was uncorrelated with scores of depression, complicated grief, and quality of life. The results of the current study suggest a conceptual distinction between these often conflated diagnoses for this population and impart empirical insight into the commonly-held yet largely untested assumption that the DP serves a restorative, if not psychologically rehabilitative, function for survivors.

ACKNOWLEDGEMENTS AND AUTHOR'S NOTE

The current proposal represents one of the first attempts to define *closure* for the family members and friends of homicide victims as a means of empirically evaluating the supposition that the death penalty facilitates closure, either as an end-state or a process, for these individuals. As such, the research reported in this document does not attempt to account for every possible variable potentially affecting psychosocial functioning post-homicide. Instead, I have attempted to account for potential mediators of psychological response that are either theoretically or empirically grounded. Such an investigation has value in evaluating the supposed therapeutic value of the death penalty to the survivors as well as in garnering much-needed clinical attention to this often overlooked clinical population. This study also represents an exploratory effort to gain a more comprehensive picture of the post-homicide experience—a picture which, at present, is incomplete. It is ultimately my hope that this research will simultaneously honor the lives that were lost and help bring about a better understanding of the needs and burdens of those who were left behind. I am indebted to each of the homicide survivors who lent their voice to this research study and the many individuals who facilitated this research. I appreciate the trust they placed in me to attempt to answer some of the questions laid out in this project and to do justice to the perspectives they shared. This study was blessed early on by an academic advisor with a vested interest in the research question and in the methodology used to examine it. Thank you, Dr. Kucharski, for lending your ideas and guidance to this considerable endeavor. I was fortunate to meet several esteemed researchers, scholars, and practitioners along the way who enriched this study with their perspectives, energized me with stimulating conversations, imparted their confidence in me, and inspired me to press on. Included in this non-exhaustive list are James Acker, Jennifer Adger, William Bowers, Catherine Cerulli, Andrew Davies, Jody Madeira, Evan

Mandery, Maureen O'Connor, and Elizabeth Vartkessian. I am similarly indebted to my dissertation committee, who both recognized and adhered to practical matters as all good scientists and all great dissertation committees do. Finally, the words it would take to express the depth of my gratitude to my family, and to my parents and husband in particular, would far exceed the length of this dissertation. For the countless nights you lost to the din of my computer screen, for the responsibilities you took on in my absence, for never asking me to compromise on my goals or convincing me that I couldn't have it all, I am eternally grateful to Yakiri. I am indebted to my father, whose devotion to scholarship and improving the human condition has had an indelible influence on my life and career path. I am also blessed by an incredible mother, whose devotion to her family was paramount, but who managed to balance raising three children while getting a doctorate, a master's, and working full time. Thank you for leading by example! To my children: you inspire me to work hard to repair the world.

This work is dedicated to the millions of Americans whose lives were taken too soon by violence, and to the many more millions of Americans who are left to pick up the pieces in the wake of these tragedies. May you find peace when and where you can.

Table of Contents

List of Tables	ix
List of Figures	x
Chapter I: Introduction and Literature Review	1
Objectives and Specific Aims	3
Scholarly Approaches to the Post-Homicide Experience	4
Potential Effects of Offender Sentencing on Psychological Response	5
Closure and the Death Penalty Debate	15
Purpose of the Current Study	21
Hypotheses	22
Chapter II: Method	24
Design	24
Participants	24
Procedure	25
Measures	29
Chapter III: Results	37
Participant Demographics	38
Features of the Crime, Victims, and Perpetrators	38
Psychopathology and Quality of Life	42
Closure	56
Chapter IV: Discussion	60
Conclusions and Future Directions	75
References	78

List of Tables

Table 1. Logistic Regression Model Predicting Death Sentence versus non-Death Sentence	43
Table 2. PTSD Prevalence (PCL-C-N) by Offender's Sentence	49
Table 3. PTSD Prevalence (PCL-C-T) by Offender's Sentence.....	50

List of Figures

Figure 1. Depression Severity for BDI-II among Total Sample45

Figure 2. Mean BDI-II Scores across Offender Dispositions46

Figure 3. ICG-N Scores by Offender Disposition54

Figure 4. ICG-T Scores by Offender Disposition55

CHAPTER I: INTRODUCTION

The modern death penalty system in the United States can be traced back to the procedural reforms that led to the reinstatement of the death penalty in 1976 in the landmark Supreme Court cases *Gregg v. Georgia* (428 U.S. 153), *Jurek v. Texas* (428 U.S. 262), and *Proffitt v. Florida* (428 U.S. 242)—collectively referred to as the *Gregg* decision. In addition to procedural reform, the *Gregg* decision substantiated the constitutionality of the death penalty under the Eighth Amendment. Procedural reforms since *Gregg* have primarily been intended to safeguard constitutional rights of the defendant under due process. Within the past 20 years, attention has slowly shifted from an exclusive focus on the defendant and public safety to the tandem effects of the capital process on the defendant and his or her family as well as the homicide victim and victim's family. The emergence of discussions and scholarly work acknowledging the broader scope of the crime and subsequent criminal justice process has its roots in the Victim Rights Movement and retributive, procedural, and restorative justice theoretical and scholarly literatures.

In spite of increased attention to the broader impact of a capital crime and capital case process, the effect of death sentences on the family members of murder victims remains an understudied topic. Proponents of capital punishment often maintain that the death penalty provides a sense of psychogenic healing—often referred to as *closure*—that alternative sentences would be unable to fulfill, whereas opponents claim that the death penalty is traumatizing for families, that financial savings from abolishing the death penalty could be appropriated for increasing victim services, and that the death penalty unjustly places the focus on legal rather than human consequences (Death Penalty Focus, n.d.).

The prevalence of losing an immediate family member, extended family member, or close friend to homicide is estimated to be approximately 16 million American adults (Amick-McMullan, Kilpatrick, & Resnick, 1991, Resnick, Kilpatrick, Dansky, Saunders, & Best, 1993). Based on census data from the early 1990's, the time period during which this most recent prevalence was reported, the base rate of close affiliation with a murdered person was approximately 6.2% of the U.S. population. To put this figure into context, the prevalence rate of losing a loved one to homicide is approximately six times that of schizophrenia (Regier, Narrow, Rae, Manderscheid, Locke, & Goodwin, 1993), six times that of Bipolar I Disorder (Marikangas et al., 2007), and roughly on par with prevalence estimates of Major Depressive Disorder, the leading cause of disability in the U.S. for ages 15-44 (Kessler, Chiu, Demler, & Walters, 2005). Thus, relative to other clinical populations of scholarly interest, little empirical attention has been paid to Murder Victims' Family Members (MVFM)¹ or their post-homicide experiences (Armour, 2002a; Armour, 2002b). Nevertheless, the past few years have seen a modest increase of empirical attention on the experiences of family members of homicide victims, a possible reflection of the politicization and increased symbolic value of the victim to the criminal justice system (Henderson, 1985). Those studies that have investigated the psychological sequelae of homicide have typically been thematically oriented toward grief theory (e.g., Armour, 2002b; Thompson, Norris, & Ruback, 1998), posttraumatic stress, or, more recently, the synergistic interaction between grief and posttraumatic stress reactions (e.g., Prigerson et al., 1996a; Prigerson & Jacobs, 2001; Prigerson et al., 1995a; Rynearson & McCreery, 1993). Further,

¹ There is no consistent term in the literature to refer to the family members and friends of homicide victims. Despite recruiting family members as well as friends of homicide victims, the term Murder Victims' Family Members (MVFM) will be used throughout this document. Another common term, *secondary victim of homicide* (SVH), emphasizes the fact that homicide victimizes both the individual murdered (the primary victim) as well as those who loved him or her. Additionally, many MVFM prefer the term *survivors of homicide*, and the literature also employs the term *co-victims of homicide*.

rhetoric on the value of a death sentence to the family and friends of the victim—specifically, in facilitating closure—has been subjected to little empirical investigation, leaving the claim vulnerable to abuse and misappropriation.

The primary objective of the current study was to empirically examine the psychosocial sequelae of homicide on MVFM generally and differentially based on the sentence of the offender in order to attempt to test the oft-cited claim that the death penalty (DP) provides a psychologically rehabilitative function for MVFM. At present, case studies, anecdotal accounts, qualitative and theoretical analyses of psychological healing as equated with the term closure among MVFM abound (see Armour, 2002a; Armour & Umbreit, 2006; Bandes, 2000; Barnes, 1996; Coretz, 2006; Danto, 1982; Gibbons, 1988; Kaminsky, 1985; Vandiver, 2003; Zimring, 2003) and a sound body of literature—a sample of which will be presented below—has observed multiple psychological consequences to losing a loved to murder. These bodies of literature have not, however, explored in a systematic way any overlap between the loosely recognized concept of closure and established measurements of psychopathology among a sample of MVFM. The current study has attempted to address this void in the current empirical literature by conducting structured interviews with MVFM whose offenders received a death sentence and non-death sentenced control groups. In addition to the primary objective, the following specific aims were undertaken:

Specific Aim 1: To assess the prevalence of psychopathology among a sample of MVFM, as well as to assess whether psychopathology rates vary as a function of penal sentence. Because awaiting execution constitutes continual involvement with the criminal justice system and built-in delays to fulfilling the sentence—potential aggravators of psychological wellbeing—and because Life Without Parole (LWOP) constitutes both a definitive sentence and immediate

implementation of the punishment, it was hypothesized that MVFM whose perpetrators received a death sentence would report more clinically significant symptoms than MVFM whose offenders received an alternative sentence to death.

Specific Aim 2: To assess the extent to which closure is endorsed among a sample of MVFM, and whether endorsement of closure varies as a function of the perpetrator's penal sentence. Based on existing literature; anecdotal data; and capital punishment due process, whereby enactment of the sentence of death is far more protracted than a sentence of LWOP, it was hypothesized that base rates of closure endorsement would be low across groups and that endorsement would be significantly lower among the DP group.

A brief review of the current state of knowledge surrounding some of the post-homicide experiences of MVFM and the major theoretical models by which their experiences are categorized helps to set the stage for the current investigation. This review spans grief theory, Posttraumatic Stress Disorder (PTSD), and complicated grief literatures. In addition, the author examined the notion of closure within the context of the capital punishment scholarship as a psychological construct pertaining to the experiences of MVFM.

Scholarly Approaches to the Post-Homicide Experience

Amick-McMullan, Kilpatrick, Veronen and Smith's (1989) work establishes a psychological framework for comprehending how the interaction between the criminal justice process and the post-homicide bereavement experience may be different depending on the avenue of case processing. Building off of previous literature demonstrating PTSD and grief reactions among MVFM, the authors delineate a learning theory perspective of how the traumatic grief course intersects with CJS. The model uses Mowrer's Two Factor Learning Theory (1960), wherein Factor One is the classical conditioning of previously neutral stimuli

(e.g., a telephone ring, a uniformed police officer) paired with the traumatic event of learning of a one's loved one's murder. Previously neutral stimuli then elicit (or have the potential to elicit) conditioned responses similar to the initially unlearned cognitive and emotional responses to the trauma. The second factor entails stimulus generalization, during which, over time, conditioned responses become elicited by stimuli that are similar to the initial stimuli. Amick-McMullan and colleagues note that "the criminal justice system itself presents a host of such homicide-related stimuli" and asserts that "the abundance of such homicide cues and the repetitive pattern of their occurrence helps to account for the chronic nature of survivor reactions" (p. 25). DP cases, with their bifurcated trials and mandatory appeals, prolong the amount and duration of criminal justice system interactions and, in doing so, may create more opportunities for the conditioned aversive response to generalize or intensify. On the other hand, repeated confrontations with the aversive stimuli (e.g., the offender, hearing the story of the assault) may also serve to diminish the aversive response if the MVFM does not avoid such exposure. Presently, this process remains poorly understood.

Potential Effects of Offender Sentencing on Psychological Response

An empirical void exists regarding the protracted psychological correlates of offender sentencing and the penological processes associated therewith among MVFM. Although a strong correlation has been established between survivors' level of satisfaction with the disposition of the criminal case and their levels of clinical depression and anxiety (Amick-McMullan et al., 1989), no study to date has specifically investigated the impact of offender sentencing alternatives on the psychological functioning of secondary homicide victims.

Armour and Umbreit (2012) recently attempted to heed their own (2006) call to research on the topic of the post-homicide experience in a mixed-methods comparative analysis of

MVFM experiences in one DP- and one non-DP-eligible state. Qualitative analyses of participants' responses in the non-DP state indicated that, even among those who had initially wanted the DP, most participants were satisfied with the LWOP sentence and reported their belief that justice had been served. In fact, more participants in the non-DP state reported satisfaction with the criminal justice system than did those in the DP state. Quantitative analyses revealed a state by post-murder time period interaction; a main effect for sentence was not detected. While the qualitative findings lend support for the hypotheses delineated in the current study, the quantitative study suffers from a lack of power due to small sample size and the comparatively large number of variables under consideration. Further quantitative exploration of the topic is clearly needed. In addition to a larger sample size, future studies on this issue would benefit from accounting for victim and offender characteristics as mediators of the relationship between offender sentence and MVFM functioning as well as an operationalization of closure that is inclusive of measures of psychological adjustment. Other studies, which have focused more narrowly on psychological correlates of losing a loved one to murder, are categorized below into grief, posttraumatic stress, and complicated grief.

Grief Theory

Thanatological studies have typically attempted to establish normative processes of grief and bereavement, frequently enumerated by set stages including acceptance, sadness, anger, and helplessness (Buck, 1991). Stage theory, despite the dearth of empirical testing, is a widely accepted model of grief, particularly among medical doctors and psychiatrists (Maciejewski, Zhang, Block, & Prigerson, 2007). Nevertheless the dialectical tension within the thanatological body of literature is the paradox of the popularized notion of categorical stages of normative grieving and acknowledgement that grief and bereavement are unique to each individual and

circumstance (Breen & O'Connor, 2007). In particular, death by deliberate criminal act may be punctuated by traumatic reactions. Indeed, according to Stuckless (1998), in addition to the sudden and violent loss of a loved one, the survivors of homicide victims “face distinctive problems that not only cause an increase in anger and hinder the commencement of the grief process, but ostensibly could also diminish the survivor-victim’s sense of well-being and quality of life” (p. 3972). A survey of much of the literature regarding post-homicide grief concurs that the bereavement period after the loss of a family member by violent crime is differentiated by intensity, length of bereavement, and emotional resolution, as well as by their interactions with the criminal justice system and sense of rage toward the perpetrator (Sprang, McNeil, & Wright, 1989). Nonetheless, stage theories of post-homicide grief are being reevaluated and largely discredited as nomothetic principles, as more constructivist and idiosyncratic grief paradigms take their place (Freidman & James, 2008; Neimeyer, 2006).

A qualitative study of the post-homicide experiences of family members of homicide victims (Armour, 2002b) revealed six themes that the author concluded is at the core of the post-homicide experience. Armour categorized the six themes as follows: (1) This is a Nightmare You Don’t Wake Up From (reflecting the sense that MVFM are futilely waiting for the painful feelings to pass), (2) I Feel Betrayed by Those I Thought Cared (reflecting that SVHs felt continually betrayed, offended, and disenfranchised by people who did not live up to their expectations or mistreated them), (3) What Rights Don’t I Have Anymore (reflecting MVFM’s feelings that their individual rights were subsumed by the public agenda), (4) Belonging Relieves My Alienation and Loneliness (reflecting a sense that the tragedy brought the family closer together to one another or to supportive others), (5) I’ve Stopped Waiting for Things to Go Back (reflecting a permanent sense of change in world view, perception of self, and perception of

others), and (6) The Intense Pursuit of What Matters is Meaning in My Life (signifying that the pursuit of what they deemed important provided a sense of purpose to the MVFM's lives).

Armour's (2002b) study confirmed that the post-homicide grief experience is, in many regards, distinct from other forms of non-homicide bereavement.

Posttraumatic Stress Disorder

PTSD is a severe and potentially chronic mental disorder that is highly associated with social, occupational, and interpersonal impairment as well as comorbid psychiatric conditions and suicidality. Diagnostic criterion A of PTSD includes a reaction of intense fear, helplessness, or horror in response to an experienced, witnessed, or learned of event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others (Diagnostic and Statistical Manual, 4th Ed, Text Revision [*DSM-IV-TR*], 2000). Posttraumatic stress responses are categorized into three clusters: recurrent re-experiencing, avoidance of reminders of the trauma and emotional numbing, and hyperarousal (Millon, Blaney, & Davis, 1999). Re-experiencing the trauma includes such symptoms as recurrent and intrusive distressing memories of the event, recurrent and distressing dreams of the event, acting or feeling as though the traumatic event were happening (flashbacks), and intense psychological distress upon exposure to cues that are associated with or serve as reminders of the event. Avoidance of the event includes concerted efforts to avoid thoughts, feelings or conversations associated with the trauma; active avoidance of activities, places or people that arouse recollections of the trauma; inability to recall important aspects of the trauma; markedly diminished interest or participation in activities; feeling of detachment or estrangement from others; restricted range of affect (emotional numbing), and a sense of a foreshortened future. Hyperarousal symptoms consist of difficulty falling or staying asleep, irritability or outbursts of anger, difficulty concentrating,

general mistrustfulness or heightened sensitivity to perceived danger, and an exaggerated startle response. PTSD symptoms in all three clusters have been reported by family members and friends of homicide victims (Amick-McMullan et al., 1991; Thompson, Norris, & Ruback, 1996). Amick-McMullan et al. (1991) estimate a lifetime homicide-related PTSD prevalence of 23.3% among immediate family survivors, compared to a lifetime prevalence of 6.8% among the general population (as reported by Gradus, 2007). Rule outs that should be considered in diagnostic formulations of PTSD include Adjustment Disorder, in which the stressful event—such as non-sudden and/or non-traumatic bereavement—does not meet criteria for a trauma as defined above by Criterion A; and Acute Stress Disorder (ASD), which shares many of the same symptoms with PTSD but for which symptoms are experienced for less than a one month period. In addition, flashbacks should be distinguished from psychotic or dissociative experiences caused by other disorders.

The *DSM-IV* (1994) and *DSM-IV-TR* (2000) stipulate that witnessing or learning about traumatic events that were experienced by others can be a sufficient trigger of PTSD. The more distal the individual is to the traumatic event, however, the less likely that individual is to develop PTSD symptoms (National Technical Information Services [NTIS], n.d.). Nevertheless, in a broad community sample assessing estimates of prevalence and risk of PTSD, Breslau et al. (1998) found that the most common precipitating event among respondents with PTSD was the unexpected death of a close friend or relative, an event which had been experienced by 60% of their sample (N = 2,181). Similar studies have also found that family members of homicide victims were among the most likely to develop PTSD among samples of bereaved persons (Amick-McMullan et al., 1991; Kilpatrick & Tidwell, 1989). Thompson (1996) found that 53% of her sample of family members of victims of homicide reported symptoms consistent with

PTSD and an additional 27% were clinically depressed an average of 1.5 to 5 years post-homicide. Remarkably, in a study contrasting the prevalence of PTSD among crime victims and family members of victims, family members of victims of homicide were significantly more likely to meet *DSM-IV* criteria for PTSD than were direct crime victims (Freedy, Resnick, Kilpatrick, Dansky, & Tidwell, 1994). These findings have not, however, been consistently replicated. For instance, Norris (1992) found that both the individual Criterion scores and overall prevalence of PTSD was higher among survivors of sexual assault than among survivors of a family member's tragic death. Whereas 5.1% of their total sample met criteria for PTSD, 13.6% of sexual assault survivors and 7.6% of MVFMs met criteria. Similarly, Resnick and colleagues (1993) found that victimization by physical and sexual assault yielded, respectively, the highest rates of lifetime and current PTSD. Other forms of direct victimization also yielded slightly higher rates of PTSD than did secondary victimization by homicide. Lifetime prevalence of PTSD among those bereaved by homicide was 22.1% compared to a current PTSD rate of 8.9%.

Murphy et al. (1999) prospectively assessed parental PTSD prevalence rates within a group therapy setting where manner of death among the deceased children varied. The study aimed to describe the prevalence of PTSD among bereaved parents; to assess whether prevalence varied as a function of gender of the parent or the child's manner of death; to track how PTSD symptoms change over time by gender; and to describe how parents with PTSD differ from parents without PTSD with regard to the precipitating event, individual, and outcome variables. The authors found that Caucasian parents rated the group therapy experience more highly in terms of altruism, universality, and cohesion than non-Caucasian parents. Those whose child's death was a result of an accident, compared with homicide or suicide, rated the therapy more highly in problem-focused support and group leader support. Compared to previous studies

attempting to establish a correlation between violent death bereavement and PTSD diagnosis, this study benefited from a relatively large sample ($N = 261$) of non-treatment-seeking bereaved parents. Potential participants were contacted on the basis of Medical Examiner (ME) death certificates that met inclusion criteria, which included death of a non-married 12- to 28-year old by accident, homicide, or suicide. Implications drawn from this study should only be extended to a parent survivor-child victim population; this unique relationship may engender more extreme emotional disturbance and more severe trauma symptoms than other survivor-victim relationships (Wickie & Marwit, 2000). A methodological weakness in the measurement and operationalization of the IVs may have affected construct, internal, and external validity. For example, Murphy et al. (1999) consider self-esteem, self-efficacy, and coping strategies as predisposing factors to PTSD. If conceptualized as a predisposing risk factor, appropriate measurement of these constructs would have occurred prior to the traumatic event. Although such timing is pragmatically improbable, assessing these constructs after the traumatic event confounds the assessment with associative features of bereavement or even PTSD. Therefore, any correlations found between PTSD and any of these constructs cannot be interpreted (as the authors intend) as risk factors. Measurement would have also benefited from using a PTSD scale that had been previously validated and normed.

Offering an alternative method for assessing differential rates of PTSD prevalence among family members and friends of homicide victims, Amick-McMullan and colleagues (1991) used random digit dialing telephone methodology to screen a national sample of 12,500 U.S. adults. Advantages to the telephone survey method include high response rates, low cost, ease of administration, and speed. Disadvantages include between-interviewer variance, exclusion of select demographics, and poor completion rates for long surveys (e.g., Boland, Sweeney,

Scallan, Harrington, & Staines, 2006; Lindsay, 1982). Based on their large national sample, the authors projected a weighted national prevalence estimate of 9.3% of adults bereaved by homicide in the U.S. and 23.3% lifetime PTSD prevalence among immediate family homicide survivors. Particularly surprising was the finding that survivors who had experienced the homicide during their childhood, adolescence or adulthood were equally likely to develop PTSD.

Mezey, Evans, and Hobdell (2002) solicited bereaved survivors of homicide victims through a national support network for victims of crime, known as Victim Support (VS). Although this means of participant recruitment facilitated access to a unique and often inaccessible population, it presents a potential selection bias. Survivors who participate in support groups or victim assistance organizations may diverge in important ways from those who do not partake in those organizations. They may, for example, have experienced more severe psychological symptomatology, or they may endorse less symptomatology as a result of their participation. No non-VS control group was included in the authors' analysis. The results further lack generalizability due to the small sample size ($N = 35$). Although relationship to the victim and time since the homicide were accounted for, they were not treated as IVs or moderating variables, so their effect—if any—on participants' experiences is unknown.

The study of the bereavement and PTSD prevalence among the survivors of homicide victims is a relatively nascent field of research and, as such, is struggling to address methodological considerations such as those addressed above. Methodological limitations are typical of an early stage in development of any field of inquiry (Amick-McMullan et al., 1991). The above-mentioned studies neglected to detect variation in psychological distress of homicide survivors based on pre-, peri-, and post-event factors. Although Murphy et al. (1999) attempted to account for pre-event risk factors for PTSD among their sample, their operationalization of the

constructs they attempted to assess did not adequately permit such an interpretation of their findings. Similarly, post-event variables such as engagement in mental health and bereavement services, criminal justice involvement, or status of the offender's criminal case were not assessed. Lack of control over theoretically and empirically grounded potential confounds diminishes the internal validity of studies attempting to assess PTSD prevalence and the precise nature of the relationship between PTSD and bereavement by homicide.

Complicated Grief: An Integrated Model of Grief and Posttraumatic Stress Reactions

Researchers are now combining what is known from the thanatological and PTSD bodies of literature in an attempt to ameliorate the respective deficiencies of each and acknowledge the unique and nonlinear grief trajectories succeeding sudden and violent deaths (Melnick & Roos, 2007). An integrated model of grief is recommended to improve grief education and facilitate research that emphasizes the contexts in which grief occurs (Breen & O'Connor, 2007). The synergistic relationship between grief and posttraumatic stress phenomena was elucidated by Rynearson and McCreery (1993) in their study of adults responding to the loss of a family member by homicide. The authors found support for a synthesized conceptualization of post-homicide bereavement with important implications for the early intervention and treatment of this population. Nevertheless, the authors concluded that PTSD symptomatology predominate over grief reactions in the complex and arduous recovery process. Traumatic symptomatology, they contend, can interfere with the introspection and acceptance that are instrumental to eventual adjustment to the loss. In their comparison of family members of homicide victims with two sociodemographically comparable groups of other trauma victims as well as nonvictims, Thompson, Norris, and Ruback (1998) found that homicide survivors were significantly more

traumatized and endorsed more depression, anxiety, somatization, and hostility than either of the comparison groups.

The empirical literature to date on the psychological effects of a violent death is still in its nascence. Such a bereavement experience is interchangeably termed *Complicated Grief* (e.g., Horowitz et al., 1997), *Traumatic Grief* (e.g., Prigerson et al., 1999), *Pathologic Grief* (e.g., Rynearson, 1990), or *Traumatic Bereavement* (Rafael & Martinek, 1997), but all typically refer to the same underlying construct (Forstmeier & Maercker, 2007). The rationale behind distinguishing traumatic grief as a diagnostic entity separate from typical grief reactions and PTSD were briefly outlined by Prigerson and colleagues (1996a; 1999). Persons experiencing normal bereavement following the loss of a loved one experience a gradual return to baseline functioning and continue to establish new interests, activities, and relationships with others. Distress associated with the bereavement is attenuated over time and the individual prosocially adapts to his or her life without the deceased. Traumatic grief was also contrasted with bereavement-related depression (Prigerson et al., 1995a) and anxiety (Prigerson et al., 1996b), which are also attenuated by the passage of time and are more likely to be responsive to treatment with tricyclic antidepressants (Jacobs, Nelson, & Zisook, 1987; Pasternak et al., 1991). In contrast to the diagnostic criteria for PTSD, persons experiencing traumatic grief tend not to experience the avoidance and hypervigilance symptoms to the degree necessary for a diagnosis of PTSD. Other experiences characteristic of persons experiencing traumatic grief are not accounted for by the PTSD criteria, such as symptoms of separation distress. Two sets of diagnostic criteria have been proposed (for a review see Forstmeier & Maercker, 2007).

Familial death by homicide may cause a litany of other psychological reactions concomitant with bereavement and PTSD symptoms. Scholars have noted cognitive, affective

and behavioral reactions disparate from those reported by persons not bereaved by homicide, such as ruminations, vivid imaginings of the victim's death and their agony while being killed, increased stress, consuming feelings of revenge, rage, terror, numbness, and balancing internal grief with the demands for externalization by the media and the courts (Amick-McMullan et al., 1989; Getzel & Masters, 1984; Parkes, 1993; Remondet, Hansson, Rule, & Winfrey, 1987; Rynearson, 1984). Similarly, Thompson, Norris, and Ruback (1998) found that 26% of their non-clinical sample of family members of homicide victims reported clinically significant distress up to 5 years post-homicide, whereas only 3% of non-victims and 7% of victims of other types of trauma reported experiencing clinical distress. Other commonly observed psychological corollaries to secondary victimization by homicide include depression, phobias, anxiety, rage, substance abuse, and somatization. Indeed, the preponderance of current research suggests that MVFM are at risk for chronic psychological deterioration (see Hatton, 2001 for a review).

Closure and the Death Penalty Debate

Capital punishment in the United States has been assailed on various counts. Arbitrariness, racism, cost, and deterrence are but a few examples of the ways in which death penalty opponents have criticized the death penalty system. How the death sentence affects the family members of the murder victim is poorly understood and, even less understood, is whether closure—a term that is frequently bandied about by both sides of the death penalty debate—adequately describes a potential corollary of a death sentence. A 2001 ABC News/*Washington Post* poll (Langer, 2001) revealed that 60% of the 1,003 Americans they polled believed that the death penalty provides the family members with closure (closure was not defined for the respondents or the readers). Although no empirical evaluation of whether the death penalty engenders closure for secondary victims has been published, there are, to date, five seminal

works examining the role of closure in the death penalty debate: Zimring (2003), Kanwar (2001), Berns (2009), Bandes (2000), and Madeira (2008, 2010). These scholars have noted the increased attention as a likely reflection of the increased use of the term in legal settings.

Zimring (2003) contends that the discourse on the purposes of capital punishment in the United States have, since 1989, begun to downplay deterrence and highlight retributive justice for the victims' families. In part, this change is predicated on the shift in procedure set forth in *Lockett V. Ohio*, in which information on the defendant's character that may influence a decision of whether a death sentence is presented to the jury in the penalty phase of a capital trial. In response, Victim Impact Statements (VIS) are used to present evidence of the nature and extent of the damage incurred by the victims and family members of the victims (readers are directed to the Supreme Court cases *Booth v. Maryland* and *Payne v. Tennessee* for further information on the introduction of VIS in the penalty phase). Zimring argues that the symbolic importance of the VIS in assisting the jury in deciding between a death or alternative sentence has transformed the penalty phase of the capital trial into one that seeks to communicate to the jury that "its choice of sanction is a measure of the value of the homicide victim's life" (p. 52). This message, Zimring contends, implicitly communicates to MVFM that the harsher the sentence, the more likely they are to attain closure (Berns, 2009; Kanwar, 2001; Zimring, 2003). Whether this assumption is factually accurate may be less important than the psychological implications of the message itself. If a death sentence is rendered—a likelihood which Zimring estimates to be 1 in 50 in death penalty jurisdictions—anecdotal accounts suggest that closure is endorsed by some and unfulfilled for others (e.g., Armour, 2002b; Armour & Umbreit, 2006; Brownlee et al., 1997; Vollum & Longmire, 2007). If a death sentence in a capital case is not rendered, the implication is that closure is elusive at best, unattainable at worst.

Perhaps most important to the current discussion is Zimring's (2003) assertion that there are two primary ways in which the term 'closure' entered into the capital punishment lexicon that preclude a precise meaning for the term. One, closure has no official function in legislative or legal proceedings so there is no definitive definition. Second, closure is almost exclusively used as a sound bite, without ascription to how it functions for secondary victims, how it is measured, or what it truly means. Zimring stops short of offering a cohesive theory of closure as a distinct psychological phenomenon, but does insist that it be differentiated from retribution, vengeance, or satisfaction with a penal sentence—all of which place the emphasis on the offender outcome rather than grieving of the secondary victim.

Kanwar (2001) examined the relationship between the specific meaning of closure to the Victims' Rights Movement and the broader cultural meaning of closure in relation to the death penalty. Kanwar is critical of the use of closure as a justification for a death sentence, stating, "although capital punishment represents an attempt at complete closure, a death sentence in the United States is not a clear articulation of finality but rather is a constant deferral of the last word" (p. 215). Whereas Zimring (2003) seeks to conceptually differentiate closure from vengeance, Kanwar bifurcates closure into two types: *mercy-as-closure* and *vengeance-as-closure*. In differentiating between distinct avenues of closure, Kanwar asks how mass closure can be provided when closure is such an idiosyncratic process. Specifically, Kanwar asks whether the justice system should "aim to provide emotional closure associated with cessation of grief," which he later asserts is unlikely to be addressed by legal or procedural remedies, or "should we seek to achieve immediate and efficacious satisfaction to individuals who associate their need for closure with feelings of vengeance and retribution?" (p. 241). The latter has led to what Kanwar refers to as the "cultural production" of closure as an independent rationale for the

death penalty in the United States (p. 216) under the untested assumption that vengeance and retribution are either synonymous with or sufficient for closure as an end-state.

Berns (2009) echoes the sentiments of Zimring (2003) and Kanwar (2001) by noting the expansion of the closure discourse to one of the focal points of the death penalty debate. Berns addresses how proponents of the death penalty use closure as a means of *emotion-domain expansion*, wherein the boundaries or domain of a social problem (in this case closure) is expanded to inflate the problem's scope or renew interest (see also Best, 1990). Berns contends that closure represents an emotional appeal to the public that has not only succeeded in broadening the emotional justification for the death penalty, but has been so effective as to "institutionalize closure in the criminal justice system" (p. 383). In her qualitative analysis of literary, scholarly and media documents on pro- and anti-death penalty closure rhetoric, Berns identified three main themes: (1) the death of the killer will provide closure for secondary victims that would not be attained without the offender's death; (2) seeking the execution of the killer (and in some versions of this argument, watching the execution of the killer) is therapeutic for the secondary victims; and (3) one can advocate for either the killer or the victims, but not both. Borrowing Furedi's (2004) terminology, Berns deems the closure discourse as an example of unfounded *therapeutic claims-making*, in which closure becomes a rhetorical tool and institutionalized practice within the legal system.

Bandes (2000) also questions the appropriateness of the legal system promoting victim closure as a justification for the death penalty. Importantly, Bandes also asks the intuitive but empirically neglected question regarding what MVFM need in order to attain some degree of closure. Anecdotal accounts paint a complex picture of whether and by what measures closure is attained, and empirical studies are far more attentive to the needs of primary victims of non-

homicide violent crimes. Bandes warns that the questions of what secondary victims need (emotionally) and what the legal system should provide should not be conflated. If, for example, empirical studies of closure find that forgiveness is a requisite component, then the legal system, in its pursuit to help MVFM attain closure, would by extension need to facilitate forgiveness.

Madeira (2010) makes a unique contribution to the literature on how the concept of closure functions within the context of the United States capital punishment system. Madeira examines three disparate but related areas of how closure functions within the MVFM population. First, Madeira summarizes how legal scholarship has described closure, and asserts that the courts use the rhetoric of closure to address procedural concerns (i.e. preventing delays in the court proceedings), preserve victims' entitlements (i.e. a timely resolution of the legal case), and exercise therapeutic jurisprudence. Madeira then draws upon her interviews with Oklahoma City Bombing survivors and victims' families (see Madeira, 2008) to elucidate what she terms a *communicative theory of closure*. She found that respondents tended to discuss closure in one of two ways. In one sense, the concept referred to a sense of absolute finality, healing, and "getting over it" (p. 17). Respondents spoke of this form of closure as illusory, asserting that, although it is popularized in media accounts, it does not actually exist. In the other sense, closure refers to "coping, comprehending, or contextualizing the murder" (p. 17). Although respondents seemed to believe that this type of closure was attainable, many reported that they had not personally experienced it. In fact, 22 out of the 27 respondents reported that closure never occurs. Nevertheless, Madeira concludes that "the reason why closure proved to be an unpopular, troublesome, and alien concept seemed to stem from the ways in which it has been used by outsiders to denote complete finality or whole healing, particularly within a certain timeframe" (p. 17-18).

In one of the most substantive theoretical contributions to the evolving conceptualization of closure, Medeira (2010) enumerates her communicative theory of closure in five points. First, closure is synonymous with coping rather than a consummate state of healing or resolution. Second, the internal state that is commonly thought of as psychological closure and external events interact to create an experience of closure as something that waxes and wanes over time. Madeira's conceptualization of this aspect of closure is reminiscent of the emerging literature on complicated bereavement that was briefly reviewed above. Third, Madeira states that closure is a balancing act in which MVFM must engage to, for example, manage their grief, preserve the memory of the victim, and attend court proceedings. Fourth, closure is facilitated by legal proceedings, in which MVFM can feel as though both they and the victim are represented and respected in the process. Fifth, the author emphasizes that the process of closure is, by nature, communicative. That is, it is dependent on the secondary victim's ability to communicate and engage with others--to grieve, to advocate, to seek advice, and, perhaps, to impart meaning or forgiveness. Although not expressly stated, Madeira's communicative theory of the nature of closure borrows from procedural and retributive justice theories. Indeed, Madeira notes that part of the inherent value of a communicative theory of closure is that, rather than focusing on a subjective, idiosyncratic definition of closure, the theory supports measures that would establish ways to enhance closure for MVFM: "There are only a finite number of ways in which the legal system can assist victims' families in reaching this type of state...and all of them are founded upon communicative behaviors" (p. 29). Madeira thus asserts that closure is enhanced by engagement in a legal process that is perceived as fair, respectful, and retributive.

Finally, although Madeira (2010) suggests that there are not different types of closure (e.g., legal closure, psychological closure) but rather that closure occurs at different levels, her

conceptualization of closure as enhanced by communicative behaviors is predominantly predicated on interactions with the legal system. From an interventionist perspective, this begs the question of what happens to closure when either the perpetrator is not caught, is not convicted, is exonerated, or is not sentenced in a way that is satisfying to the MVFM. Can an MVFM attain a form of closure (e.g., enhanced psychological coping) when another form of closure (e.g., legal resolution) is not attained? From a procedural justice perspective, satisfactory legal outcomes would not be as consequential to the MVFM as the communicative acts that transpired along the way. Madeira would argue then, that although a focus of the Victims' Rights Movement has been to seek closure via swifter executions or longer prison sentences (Kanwar, 2001), closure is more appropriately viewed as a process that is contingent on interpersonal interaction facilitated by the legal experience.

Purpose of the Current Study

Targeted identification of a sub-population at an elevated risk for psychiatric disorders, maladjustment, and stress can, it is hoped, ultimately inform the application of interventions for MVFM (e.g., Armour, 2002b; Mezey, Evans, & Hobdell, 2002; Murphy et al., 1999; Rynearson & McCreery, 1993). More empirical research is needed to examine the correlates of psychosocial functioning of MVFM as well as to decipher whether their psychosocial outcomes may vary as a function of criminal justice outcomes. Attempts were made to extend inclusion to MVFM who both are and are not engaged in victim support services or mental health counseling to increase generalizability of findings. By collecting self-report data on established psychological constructs, such as depression, PTSD, and complicated grief, as well as the not-formerly established construct of closure, associations between these measures of psychopathology and closure could, for the first time, be assessed systematically.

Hypotheses for the current study were as follows:

Hypothesis 1: Because awaiting execution constitutes continual involvement with the criminal justice system and built-in delays to fulfilling the sentence—potential aggravators of psychological wellbeing—and because LWOP constitutes both a definitive sentence and immediate implementation of the punishment, the investigator hypothesizes that MVFM whose perpetrators received a death sentence will self-report more clinically significant symptoms of depression, PTSD, and complicated grief than MVFM whose offenders received an alternative sentence to death, such as LWOP.

Hypothesis 2: Clinical symptoms (depression, PTSD, and complicated grief) and quality of life will correlate with self-perceptions of closure.

- A. Current severity of clinical symptoms as assessed via the measures of psychiatric disorders discussed below will be negatively correlated with perceived attainment of closure.
- B. Quality of Life, as assessed via the quality of life scale discussed below, will be positively correlated with perceived attainment of closure.

Hypothesis 3:

- A. Overall, scores on the PCL-C will exceed the recommended cutoff.
- B. PCL-C scores in this sample will be higher than nonclinical community samples.
- C. Retrospective total scores on the PCL-C will be higher than prospective total scores on the PCL-C.

Hypothesis 4:

- A. Overall, scores on the ICG among MVFM in the current sample will exceed the recommended cutoff.
- B. Retrospective total scores on the ICG will be higher than prospective total scores on the ICG.

Hypothesis 5: Based on existing literature; anecdotal data; and the capital punishment due process, whereby enactment of the sentence of death is far more protracted than a sentence of life without parole (LWOP), it is hypothesized that base rates of closure endorsement will be low across groups.

Hypothesis 6: MVFM whose offenders received a death sentence will endorse closure at lower rates than MVFM whose offenders received an alternative sentence.

CHAPTER II: METHOD

Design.

The methodology employed in this quasi-experiment consisted of a between-subjects cross-sectional design. The dependent variables (DV) were the post-homicide psychological functioning of the participant. Psychological functioning consisted of depressive, posttraumatic stress, and complicated grief symptomatology as well as a self endorsed sentiment of closure. The categorical independent variable (IV) was the perpetrator's case disposition. Changes in the DV were also appraised as a function of time elapsed since the homicide occurred, relationship to the victim, the heinousness of the crime, and engagement in a support group.

Participants.

Eligible participants included English-speaking family members and close friends of homicide victims over the age of 18. Studies pertaining to the bereavement experiences of MVFM are often hindered by difficulty accessing the population and the small number of volunteers for participation (Rynearson & McCreery, 1993). Victim service providers were solicited in an effort to enhance accessibility to and response rate of eligible participants. National and regional organizations were selected for contact on the basis of careful research pertaining to the services offered, the population(s) served, and mission statements that demonstrate neutrality with regard to capital punishment or are demonstrably pro- or anti-DP (efforts were made to assure conditions were balanced). Eligible organizations were contacted by phone, email, and letter correspondence by the Principal Investigator (PI) and faculty advisor. They were asked to alert eligible participants to the study by an email or letter request, message to an electronic bulletin board, newsletter announcement, or by posting flyers in their physical location. Attempts were made to recruit from a geographically diverse sampling pool.

Additionally, because death sentences are statistically rare occurrences, quota sampling constituted the second phase of data collection. Both methods of recruitment also relied on snowball sampling and are described in more detail below.

Procedure.

Interviews were conducted between April, 2010 and January, 2013. No interviews were conducted within one week of major religious or national holidays to minimize the likelihood of an *anniversary effect*, in which grief symptoms intensify around holidays and important dates related to the deceased's life or death. Phase I data collection took place between April, 2010 and December, 2010 and yielded a total sample of 76 MVFM, of which 7 (9.21%) had offenders who were sentenced to death, 31 (40.79%) had offenders who were sentenced to LWOP, 13 (17.11%) received a parole-eligible sentence, 2 (2.63%) had been found Not Guilty by Reason of Insanity (NGRI), and 23 (30.26%) were coded as other (examples of "other" include murder-suicide, no suspect, and perpetrator not yet sentenced at the time of the interview).

The second phase of purposive data collection was completed between September, 2011 and January, 2013 and was intended to balance the sample with regard to offender sentence and race. A national sample of executed, exonerated, and current death row inmates was identified; the names and contact information of 230 MVFM for randomly selected offenders who had received a death sentence since 1978 were then obtained via intensive internet searches. Non-response rates were high (33.04%) for this method. Fewer than 10% ($n = 20$) of identified potential participants were reached by phone and refused to participate; the remainder were incorrectly identified or were not accessible via phone or mail due to faulty or incomplete contact information. This method of data collection yielded 16 additional participants in the DP group, bringing the total sample to 92 and the DP cell to 23 (25% of the total sample; LWOP

comprised 33.7% of the final total sample). It should be noted that the DP group is heterogeneous, as offenders may have been at various points of the criminal justice process, including awaiting execution with appeal on-going (39.1%), awaiting execution with appeals exhausted (8.7%), and executed (52.2%). A similar distribution of appeals status exists among the LWOP group, with 25.8% of LWOP offenders in the appeals process at the time of the interview and 64.5% not engaged in the appeals process. Offenders who had been sentenced to death and subsequently exonerated were not included; however future studies will attempt to include a comparison sample of exonerated offenders to examine whether the psychosocial and grief trajectories of MVFM differs under these circumstances.

Both methods of participant recruitment relied on purposive and snowball sampling, which inflate the risk of sampling bias. Watters and Biernacki (1989) note that targeted data collection is often used with inaccessible or hidden populations, such as clinical samples in the community. The authors go on to state that targeted sampling is designed to “obtain systematic information when true random sampling is not feasible and when convenience sampling is not rigorous enough to meet the assumptions of the research design” (p. 420). An additional, overarching method, called adaptive sampling, was used to help ensure a representative sample. Adaptive sampling techniques were developed for rare, hidden, or dispersed populations to increase the likelihood of attracting a representative sample (Martsolf, Courey, Chapman, Draucker, & Mims, 2006). Adaptive sampling techniques that were used in the current study include link tracing, which, similar to snowball sampling, employs connections between people to access new potential participants, and adaptive allocation, which entails beginning with conventional sample selection followed by targeted recruitment. Accordingly, although logistical constraints limited the ability of the researcher to collect a random sample of an already

inaccessible population, efforts were made throughout data collection to increase the diversity of both the types of organizations contacted (e.g., pro-DP; anti-DP) and the location and known demographic features of individuals who were invited to participate in order to reduce the risk of sampling selection bias. Additionally, Phase I and II of data collection targeted slightly different populations (those who are known to have some contact (current or historical) with victim services or political organizations and those whose participation in such groups is unknown), thereby broadening the sample frame.

Identified organizations were contacted by the PI and asked to distribute information pertaining to the study. Interested prospective participants contacted the PI via a private email address and/or voicemail. Responding participants were informed of the study and of their rights as a participant and, after obtaining their oral consent, were interviewed by telephone by the PI or a trained Masters-level Research Assistant (RA). Administration time ranged between 40 and 195 minutes with a mean completion time of 67.56 minutes. Participants were given the option of receiving \$30 for their participation or having \$30 donated to an organization of their choice.

Interviews included administration of a post-homicide experiences questionnaire written and pilot tested by the PI and reviewed by scholars in Psychology and Criminal Justice as well as a MVFM. Additionally, interviews included the oral administration of the Beck Depression Inventory-II (BDI-II; Beck, Steer, & Brown, 1996), The Quality of Life Enjoyment and Satisfaction Questionnaire—Short Form (Q-LES-Q SF; Endicott, Nee, Harrison, & Blumenthal, 1993), Post Traumatic Stress Disorder Checklist (PCL-C; Weathers, Litz, Huska, & Keane, 1994), and Inventory of Complicated Grief (ICG; Prigerson et al., 1995b). Based on pilot testing, the PCL-C and ICG were modified slightly. These modifications will be discussed below.

Following the conclusion of the interview, participants were given information on therapy, victim, and/or grief services in their geographic region if they indicated their interest or need at any point during the interview. Interviews were paused or terminated if participants endorsed suicidal ideation on any of the psychological measures or at any point during the call. There was one participant who endorsed suicidal ideation during the interview. The RA followed protocol by collecting information on the nature of the ideation. A formal risk assessment was then conducted by the PI. This information was then shared with the faculty advisor and a determination of low risk was made. The participant was able to resume the interview.

After interviews were completed, intensive internet searches were conducted to produce a crime summary for each participant. Crime summaries included as many details of the crime as were publicly available in order to facilitate approximate assessments of the heinousness of each of the crime events in the current sample. The heinousness of a crime is considered an aggravating factor in the sentencing phase of capital trials as well as a determinant in sentencing for non-capital murder trials. There are no known validated instruments by which to assess heinousness—a term which itself has no agreed-upon definition in the legal sphere. Nonetheless, the heinousness of the crime is a potential mediating factor in the post-homicide adjustment and must therefore be accounted for. De-identified narratives were administered to three jury-eligible independent raters for each crime summary for which sufficient detail was available ($n = 78$), who rated the heinousness of the crime on a 5-point Likert scale. The following instructions were administered to raters:

On the pages that follow you will find brief summaries of actual murder events in the United States. Please read each summary carefully. Once you have reviewed the case facts, you are requested to assign a heinousness rating for that murder event based solely on the facts provided. The rating scale ranges from 1 to 5, where:

- 1 is not heinous
- 2 is a little heinous
- 3 is moderately heinous
- 4 is quite heinous
- 5 is extremely heinous

Please note that these ratings are based on your subjective opinion of the level of heinousness, atrociousness and cruelty present in the murder event.

On pages 2 and 3, you will find samples of crime summaries. Please review these summaries first to form an impression of how you would assign the heinousness rating relative to other murders. Once you have completed this task, you may proceed to Crime Summary 1 on page 4.

Sample crime summaries were intended to prime raters for the types of potentially disturbing or gruesome detail present in the crime narrative. One sample presented few such details while the other presented a high number of such details. Ratings for each crime summary were averaged between the three raters to yield a heinousness rating.

Measures

The Secondary Victims' Post-Homicide Experiences Questionnaire (SVH-Q), devised by the author and reviewed by one MVFM and two scholars in the fields of psychology and criminal justice, resembles conventional forced-choice categorical items, with the exception of four open-ended questions at the end of the interview. The 50-item questionnaire attempts to ascertain demographic features of the respondent as well as the respondent's relationship to the homicide victim, his or her involvement with the criminal proceedings, the stage or disposition of the case against the perpetrator, the respondent's participation with victim's assistance/support/advocacy groups and/or therapeutic care, the individual's level of support for the death penalty and Life

Without Parole (LWOP) prior to and since the homicide, and the self-reported psychological status of the respondent prior to the crime and at present. Closure was assessed at the end of the interview in two ways: (1) “On a scale of 1 to 5, where 1 is *not at all*, 3 is *somewhat*, and 5 is *completely*, to what extent have you been able to return to the same level of functioning as before the murder?”; and (2) “Do you feel a sense of closure for the murder of your ____?...Please explain why/why not”. Additional qualitative information were also collected by asking the following follow-up questions: “[If Yes] What do you think has helped you reach this feeling of closure?”, “How would you describe this sense of closure?”, and “[If No] Do you think there is anything that would help you feel closure?”. Rephrasing the closure question provided respondents with an opportunity to rate their perceived level of adjustment without the connotations of the term *closure*, which often generates reactivity among the MVFM community (Bandes, 2000; Madeira, 2010).

The Quality of Life Enjoyment and Satisfaction Questionnaire—Short Form (Q-LES-Q-SF; Endicott et al., 1993) is a 16-item self-report scale that is designed to measure the degree of enjoyment and satisfaction experienced by respondents in general activities of daily life in the past 7 days. The first 14 items pertain to social relationships, living situation, and physical health. Item 15 is relevant only to respondents taking medication, and Item 16 asks for a global rating of life satisfaction and contentment. The Q-LES-Q-SF uses a 5-point Likert scale. Questions 1 through 14 are summed to yield a total raw score, ranging from 14 to 70. The raw total score is transformed into a percentage maximum possible score between 0 and 100. Response time averages 5 minutes (Danovitch & Endicott, 2008). The measure has good internal consistency (Cronbach alpha = 0.90-0.96) and was normed on a sample of 83 depressed outpatients (Endicott et al., 1993). It was found to be valid both in assessing severity of illness and in assessing change after treatment. The Q-LES-Q-SF has been used with a wide range of

clinical and primary care samples as a screening tool and as an outcome measure (Endicott, Paulsson, Gustafsson, Schioler, & Hassan, 2008; Revicki, Brandenburg, Matza, Hornbrook, & Feeny, 2008). A recent study cautioned against use of community norms as a responder definition because responder definitions may not be generalizable from one condition or disease to another (Wyrwich, Harnam, Revicki, Locklear, Svedsater, & Endicott, 2011). Instead, the authors recommended that a responder definition be investigated within each condition or disease using appropriate anchors.

The Beck Depression Inventory-II (Beck, Steer, & Brown, 1996) is a 21-item self-report measure used to assess the severity of depression based on the *DSM-IV-TR* (2000) diagnostic criteria. Individual items are rated on a 4-point scale, with a maximum overall score of 63. Total scores between 0-13 indicate depression in the minimal range. Scores of 0-13, 14-19, 20-28, and 29-63 indicate minimal, mild, moderate, and severe depressive symptoms, respectively. Oral administration time may take up to 15 minutes (Yonkers & Samson, 2008). Pilot testing for the current study revealed an average administration time of approximately 5 minutes. Reliability measures were developed based on both clinical outpatient ($N = 500$) and student ($N = 120$) samples across the United States, across both genders, four ethnocultures, and a wide age range (13-86). The BDI-II demonstrates good internal consistency within the clinical and student samples (Cronbach's alpha of .92 and .93, respectively; Beck et. al, 1996).

One of the most frequently used instruments for assessing PTSD is the PTSD Checklist (PCL), developed by a research team from the National Center for PTSD (Weathers, Litz, Herman, Huska, & Keane, 1993). This same team of researchers modified the PCL for use with a civilian population (PCL-C; Weathers, Litz, Huska, & Keane, 1994). The PCL-C is a 17-item self-report, self-administered measure that corresponds to *DSM-IV-TR* (2000) diagnostic criteria

B, C, and D for PTSD. Each of the 17 items reflects the parallel symptom found in the PTSD diagnostic criteria, which fall into three distinct clusters (re-experiencing the traumatic event, avoidance or numbing, and hyperarousal). Respondents are asked to endorse their level of distress associated with each item/symptom over the last 30 days on a 5-point scale (1 = *not at all*; 2 = *a little bit*; 3 = *moderately*; 4 = *quite a bit*; 5 = *extremely*). The PCL-C has been lauded for its evidence of validity and reliability, fast and easy administration, and diagnostic sensitivity and specificity (e.g., Blanchard, Jones-Alexander, Buckley, & Forneris, 1996; Forbes, Cramer, & Biddle, 2001; Weathers et al., 1993). The psychometric properties of the PCL-C have been assessed on various civilian subpopulations (e.g., Blanchard et al., 1996; Elhai, Engdahl, Palmieri, Naifeh, Schweinle, & Jacobs, 2009; Hoyt & Yeater, 2010; Ruggiero, Del Ben, Scotti, & Rabalais, 2003). This measure of PTSD is preferred because it uses the precise language of the *DSM-IV* and limits responses to the traumatic event in question.

Discrepancy in the literature surrounds the most suitable cut-off score for dichotomous scoring of the PCL-C, with values ranging between 29 and 50 total points. Likewise, Blanchard and colleagues (1996) noted that individual PCL items may require different cut-off scores to maximize sensitivity and minimize false positives, false negatives, and misses. Blanchard et al. evaluated the psychometric properties of both the individual item scores and PCL-C total score to determine the cut-off scores that would yield maximum sensitivity, specificity, and diagnostic efficiency among their sample of 27 adults who had survived a severe automobile accident and 13 adult victims of sexual assault. For the total score, the best diagnostic values occurred by setting the cut-off at 44, which generated an overall diagnostic efficiency of 0.900, a sensitivity of 0.944, a specificity of 0.864, and correctly identified 17 of the 18 participants with PTSD. This finding has been replicated (e.g., Ruggiero et al., 2003).

Based on pilot testing, a modification to the PCL-C entailed asking participants to complete each item according to the extent to which this item represents their experience within the past 1 month (per the original instructions), followed by their endorsement of the extent to which the item represented their experience within the first 6 months following the homicide. Anecdotal data from piloted participants suggests that MVFM have a clear recollection of their emotional experience in the 6 months following the homicide. Nevertheless, extreme caution should be exercised in extrapolating from this data, as research suggests that people have poor memories for traumatic events, and may exaggerate negative details of an event or emotional experience (e.g., Engelhard, van den Hout, & McNally, 2008; Southwick, Morgan, Nicolaou, & Charney, 1997). Therefore, the retrospective data were not used to infer that a participant would have met for a diagnosis of Acute Stress Disorder (ASD) in the 6 months following the homicide, only that he or she may have experienced some of the symptoms consistent with a trauma disorder.

A thorough review of the literature produced no gold standard for the assessment of grief and bereavement reactions (e.g., Forstmeier & Maercker, 2007), however some instruments relevant to research and clinical assessment have been helpful in assessing traumatic grief symptomatology (Hansson, Carpenter, & Fairchild, 1993). In particular, the Inventory of Complicated Grief (ICG; Prigerson et al., 1995b) is a self-report measure designed to assess maladaptive grief reactions (Neimeyer, Hogan, & Laurie, 2008). The measure evolved out of research on conjugally bereaved elders which demonstrated that, in addition to symptoms consistent with anxiety and depressed mood, a subset of bereaved individuals developed maladaptive symptoms uniquely related to the grief experience (Prigerson et al, 1995a; 1995b). A principal components analysis revealed a complicated grief factor and a bereavement-

depression factor. Based on their sample, the authors concluded that seven symptoms constituted complicated grief: (1) searching, (2) yearning, (3) preoccupation with thoughts of the deceased, (4) crying, (5) disbelief regarding the death, (6) feeling stunned by the death, and (7) lack of acceptance of the death. Importantly, they found that complicated grief scores were significantly associated with impairments in global functioning, mood, sleep, and self-esteem in their follow-up sample. The ICG was derived based on these findings.

The 19-item ICG is reportedly the most widely used instrument to assess complicated grief (Pivar, 2007). Respondents are asked the extent to which each statement applies to them (*never, rarely, sometimes, often, or always*), representing a scale of 0 to 4. Prigerson and colleagues (1995b) recommend a cutoff score of 25 in diagnosing complicated grief, with possible scores ranging between 0 and 76. More recent guidelines establish a cutoff score of 30 to indicate a high likelihood that complicated grief is present (Reynolds, Stack, & Houle, 2011). Exploratory factor analysis (EFA) indicated that the ICG measures a single underlying construct of complicated grief (Prigerson et al., 1995b). A more recent study (Shear et al., 2011) employing a confirmatory factor analysis on the ICG suggests a slightly different set of six factors comprised by the ICG: (1) yearning, with preoccupation with the deceased; (2) shock and disbelief; (3) anger and bitterness; (4) estrangement from others; (5) hallucinations of the deceased; and (6) behavior change. Results from Shear and colleagues' study were used to inform diagnostic criteria proposed for inclusion of a complicated grief diagnosis in *DSM-5*. Diagnostic criteria were, based in part on this research, proposed for Maladaptive Bereavement Disorder as a subtype of adjustment disorder (for an enumeration of the proposed diagnostic criteria, see Reynolds et al., 2011). The ICG has high internal consistency (Cronbach's alpha = 0.92 – 0.94) and test-retest reliability (0.80; Prigerson et al., 1995b). The ICG total score

correlated well with measures of depressive symptoms and a general measure of grief, providing evidence for the validity of the tool (Prigerson & Jacobs, 2001). Additionally, the ICG has demonstrated predictive validity when assessing long-term physical and mental health consequences of bereavement (Neimeyer et al., 2008). As with the PCL-C, the ICG was modified based on pilot testing to address MVFM's sentiment that symptoms covered by the ICG were experienced differently at different points in the post-homicide grief course. These questions were, as with the PCL-C, administered and scored separately and are hereafter referred to as ICG-N (the standard administration) and ICG-T (in which questions were rephrased to pertain to presence of the symptom to which each item refers within the first 6 months following the homicide).

Finally, because the research interview was administered via telephone to participants, the effectiveness and reliability of telephone surveys in eliciting sensitive information are important to consider, as are the ethical concerns of questioning people about experiences of violence over the telephone. In a recent study comparing different methods of eliciting sensitive information from a sample of 215 undergraduates (Rosenbaum, Rabenhorst, Reddy, Fleming & Howells, 2006), students were randomly assigned to a paper and pencil survey, in-person interview, telephone interview, or automated telephone interview. The use of telephone interview, both personal and automated, produced significantly higher response rates (over 96%) than in-person interviews (77.2%) and paper and pencil administration (74%). There were no differences in disclosure rates as a function of the method of collection, suggesting that increased privacy and anonymity of telephone interviewing does not influence the quality or amount of data obtained. To examine the existence of a bias against telephone interviewing in qualitative research, Novick (2008) reviewed 14 articles from 1988 to 2007 and concluded that there is little

evidence of a loss of rapport, inability to probe, or deception on the part of the respondent when using telephone interviewing methods. Her review suggests that interpretation is not compromised and data is not lost or distorted when substituting telephone for face-to-face interviews. Further, Novick's review suggests that the use of telephone may invite respondents to more freely disclose sensitive information.

CHAPTER III: RESULTS

Prior to proceeding with the quantitative analyses, missing and out-of-range data were identified and corrected as needed. Missing data were treated via regression imputation. Additionally, distributional assumptions of the planned analyses and variables of interest were tested and statistical transformations were conducted on an as-needed basis. Also evaluated were the correlations between the planned covariates to identify any potential collinearities.

Due to the discrepant data collection methods described in the Method section, additional analyses were conducted to determine whether Phase I and Phase II participants were significantly different from one another with regard to prospective independent variables. Analyses revealed few differences between Phase I and Phase II participants. No differences were observed on the basis of gender, education, or race, although level of education approached significance ($\chi^2(7) = 13.56, p = .06$). Participants recruited during Phase II were significantly older than Phase I participants ($t(89) = -3.68, p = .00$). Differences were not, however, observed on the basis of age of victim, nor was the time elapsed since the homicide significantly different between the groups. Of note, relationship to the victim was significantly discrepant, with Phase I participants being more likely to be a parent of the murder victim ($\chi^2(4) = 11.14, p = .025$). It is this discrepancy between groups that is the most potentially problematic, as parents of murder victims may experience a more severe post-homicide grief reaction than other kin. Finally, of all participants, 56.5% were recruited through organizations that serve homicide victims in some capacity and 40.2% were not (3.3% missing data). LWOP participants were more likely to have been recruited via a service provider ($\chi^2(2) = 5.51, p = .02$).

Participant Demographics

Participants in the current study were mostly female (83.7%) and Caucasian (81.5%), followed by African American (7.6%), Hispanic/Latino (4.3%), or other (3.3%). Participants' age ranged between 28 and 84 years ($X(SD) = 53.21(13.42)$). As noted above, participants recruited during Phase II tended to be slightly older ($X(SD) = 63.47(10.68)$) than participants recruited during Phase I ($X(SD) = 52.00(11.09)$). Education level, though variable, tended to be above high school (Post-graduate = 8.7%, Graduate/Professional School = 30.4%, College graduate = 26.1%, Some college = 22.8% Vocational School = 2.2%, High School/GED = 7.6%, Some High School = 1.1%). Participants were most likely to be married or partnered (59.3%), followed by divorced or separated (18.7%), single (15.4%), or widowed (6.6%). Of the six participants who were widowed, only 2 (33.3%) were the widow or widower of the murder victim for whom they were being interviewed. At the time of the interview, most (53.9%) participants were employed full time, some (9.8%) were employed part time, and 35.9% were not employed. Participants resided in 32 different states across the U.S.

Features of the Crime, Victims, and Perpetrators

Eighty-eight distinct murder events, 92 murder victims, and 81 murderers (19 murder cases were missing or unsolved) are represented by the current sample of 92 participants. Only 4 cases had multiple (never more than 2) respondents. Of these four cases, two were DP and two were LWOP.

Murder victims' ages ranged widely, from 2 to 89 years ($X(SD) = 34.52(20.36)$). Victims were most likely to have been murdered by a stranger (38.0%), friend or acquaintance (23.9%), family member (16.3%), or a prior significant other (9.8%). This distribution is compatible with Bureau of Statistics data, which state that most homicides with known victim/offender

relationships involved people who knew each other (Fox & Zawitz, 2010). Offender-victim relationships that were unknown due to the unresolved nature of the case accounted for 12% of the current sample. Relationships between the participant and murder victim were varied among the sample. Most participants were the parent of the homicide victim (46.7%), followed by a child of the victim (20.7%). Siblings (16.3%), spouses and domestic partners (3.3%), and other relationships such as cousin, best friend, and aunt or uncle accounted for 13.0% of the sample.

Murders were geographically diverse, occurring in 27 different states, 81% of which were death penalty eligible at the time of the offense and sentencing. Thirty-one (33.7%) participants' offenders had been sentenced to LWOP (33.7%), 23 (25.0%) were sentenced to death, 13 (14.1%) offenders were sentenced to a lesser sentence, and two (2.2%) were declared Not Guilty By Reason of Insanity. Twenty-three (25.0%) participants' offenders did not qualify for a penal sentence, as the case was unsolved ($n = 10$), the trial or sentencing phase was in process at the time of the interview ($n = 7$), or the offender took his or her own life during the course of the murder ($n = 4$). A state by sentence comparison reveals that 35.9% of the offenders among the total sample received the harshest available sentence in the state in which they were tried (that is, received the death penalty in DP-eligible states or received LWOP in non-death eligible states at the time of the trial). By contrast, 38.0% did not receive the harshest available sentence in their respective states (26.1% were coded as not applicable, as these were the cases that did not qualify for a sentence for the reasons listed above).

Comparative analyses examining offender sentence as an independent variable examined the Death Penalty ($n = 23$) versus LWOP ($n = 31$) groups as well as the DP group compared to any sentence less than death (LWOP, life with parole and lesser sentences combined; $n = 46$). Participants with non-sentenced offenders or offenders who were acquitted due to insanity are

discussed briefly in descriptive terms due to their limited sample. Additionally, it should be noted that the DP group is heterogeneous, as offenders may have been at various points of the criminal justice process, including awaiting execution with appeal on-going (39.1%), awaiting execution with appeals exhausted (8.7%), and executed (52.2%). A similar distribution of appeals status exists among the LWOP group, with 25.8% of LWOP offenders in the appeals process at the time of the interview and 64.5% not engaged in the appeals process. Offenders who had been sentenced to death and exonerated were not included for analyses; however future studies will attempt to include a comparable sample of exonerated offenders to examine whether the psychosocial trajectory of MVFM differs under these circumstances. Reflective of the discrepant methods by which the death sentenced and non-death sentenced groups were recruited, the groups were significantly different with regard to whether they were connected to service providers ($\chi^2(1) = 6.693, p = .010$) and whether they had participated in support groups on at least a bimonthly basis ($\chi^2(1) = 5.276, p = .022$), with participants in the non-death sentenced group being more likely to be engaged in both types of services. Because engagement in a support group may confound the relationship between the sentence of the offender and the outcome measures, this variable was statistically controlled in the multivariate analyses that follow.

On average, approximately 15 years had elapsed between the murder and the date of the interview ($M(SD) = 14.91(10.11)$, range = 1—40 years) and 14 years had elapsed between the sentencing and the date of the interview ($M(SD) = 13.93(9.87)$, range = 1—37 years). Neither the time elapsed since the sentence nor the time elapsed since the murder deviated significantly between the DP and LWOP groups. When non-death sentences were collapsed, neither the years elapsed since the murder ($t(42) = .754, p = .455$) nor since the sentence ($t(38) = .375, p = .710$)

were significantly different. A one-way between subjects ANOVA comparing the DV mean number of years since the homicide occurred among all offender dispositions (including pre-trial, murder-suicide, and unsolved cases) was significant ($F(5)=2.998, p = .015$) due to the pre-trial group, whose mean number of years since the crime ($X(SD) = 3.19(3.38)$) was far lower than that of any other group (the two NGRI participants were excluded from this analysis due to low cell count and outlying data; one NGRI participant was 38 years out from the murder while the other was only 9 years post-homicide). Of those whose offenders had been sentenced, appeals were on-going for fewer than one-fifth (19.6%) of the respondents; half were no longer in the appeals phase (1.1% Did Not Know; 30.4% Not Applicable). Participants whose offenders had been sentenced to death were no more likely to have on-going appeals at the time of the interview than were those whose offenders had been sentenced to LWOP or a lesser prison term.

Descriptive statistics of heinousness ratings (averaged by the Principal Investigator among the three independent raters) demonstrated moderate inter-rater agreement ($ICC = 0.543, .95CI=.479, .584$). The mean heinousness rating among the 78 cases for which sufficient information was available was 3.17 on a 5-point scale ($SD = .986$). Heinousness ratings were not significantly different between LWOP ($X(SD) = 3.10(.900)$) and DP ($X(SD) = 3.52(.873)$) groups ($t(48) = 1.65, p(2-sided) = .105$), nor between DP and non-death sentenced offenders ($t(45) = 1.511, p(2-sided) = .138$). A one-way ANOVA comparing all offender dispositions reveals a significant difference in heinousness ratings ($F(6) = 2.413, p = .035$) based on the lower ratings among those participants whose murder cases were unsolved ($X(SD) = 2.25(.707)$).

Psychopathology and Quality of Life

Psychopathology by Sentence

Hypothesis 1 states that participants whose offenders received a death sentence will self-report more clinically significant symptoms and poorer quality of life than those whose offenders received alternative sentences. In order to test Hypothesis 1 without increasing the risk of a Type 1 error by running multiple univariate analyses, a forced entry binary logistic regression was selected as the most appropriate analysis, in which the outcome variable is the sentence of the offender (death penalty versus non-death sentence) and the predictor variables are the measures of psychosocial functioning (BDI-II, PCL-C, ICG, and Q-LES-Q-SF). The logistic regression coefficients are reported as odds ratios (OR). They indicate the effect of a one-unit change in a predictor variable on the odds that the participant's offender was sentenced to death (coded 1), holding all other predictors constant. A total of 65 cases were included in the analysis; almost all of which were excluded because of an offender disposition that was inappropriate for this analysis (e.g., unsolved case, murder-suicide). The Hosmer and Lemeshow test suggest that the model's estimate fit the data and the model prediction does not significantly differ from the observed ($\chi^2(7) = 9.857, p > .05$). However, adding the predictor variables improves the correct classification by only 3% over the constant model. Only PCL-C scores were a significant predictor of group membership (see Table 1). The coefficient less than 1 indicates that, the higher someone scores on the PCL-C, the greater the odds that the participant received a non-death sentence. Although it is statistically significant, the extent to which raising the PCL-C score by one unit will influence the odds ratio is quite small ($\text{EXP}(B) = 1.086$) and, as can be seen in Table 1, the effect size is correspondingly small.

Table 1: Logistic Regression Model Predicting Death Sentence versus non-Death Sentence

	B(SE)	Wald	Exp(B)
Constant	-1.822(.976)	3.483	.162
PCL-C Total	.083(.033)	6.250	1.086*

Note $R^2 = .127$ (Cox & Snell), $.176$ (Nagelkerke). Model $\chi^2(1) = 8.856$, $p = .003$. * $p < .05$, ** $p < .01$

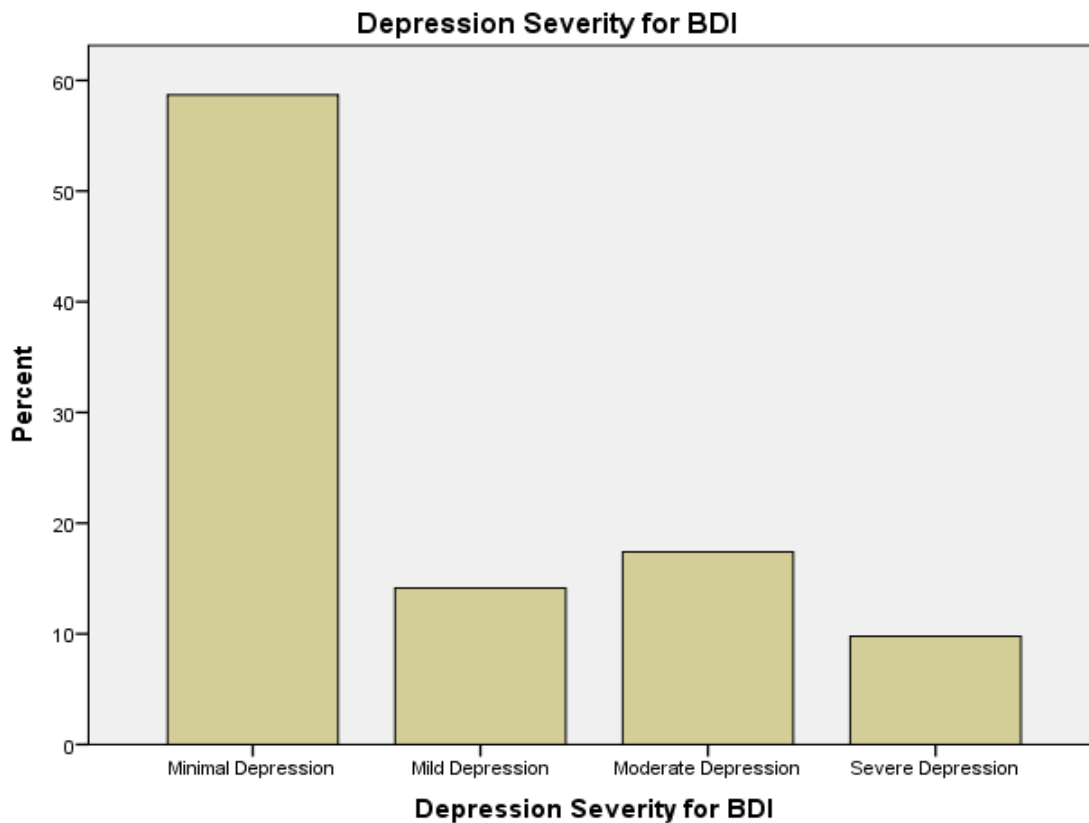
Because significant differences were found between groups based on the relationship to the victim (with participants in the non-death sentenced group being more likely to be a parent of the murder victim) and recruitment via support groups (with participants in the non-death sentenced group being more likely to have been recruited from a support group), these variables were included as covariates to reduce the error term in the model. Additionally, the number of years since the murder and the heinousness of the crime are conceptually relevant and may also have an effect on the relationship between the sentence and psychosocial functioning. To attempt to control for the effects of these variables, a logistic regression was run again for each covariate, entering the covariate in a forward stepwise method (that is, ahead of the measures). All dichotomous variables were dummy coded. For each covariate, the PCL-C scores remained a significant predictor of the sentence of the offender without a significant change to the odds ratio, suggesting that the effect of PCL-C scores is not due to the confounding influence of one of the aforementioned variables and that accounting for the effects of these variables does not influence the effect that the PCL-C had on predicting the criterion variable. Adding in the relationship to the victim ahead of PCL-C scores slightly increased the correct classification of the model (from 66.2% to 70.8%) and the odds ratio ($B(SE) = 1.328(.602)$, $\chi^2(1) = 4.871$, $p = .027$, $\Delta\chi^2(1) = 10.386$, $p = .001$). Addition of the relationship variable also led to an improvement

in the amount of variance accounted for by the model (Nagelkerke $R^2 = .270$). Neither participation in support groups, heinousness of the crime, nor the number of years elapsed since the sentence improved the correct classification of the model.

Depression

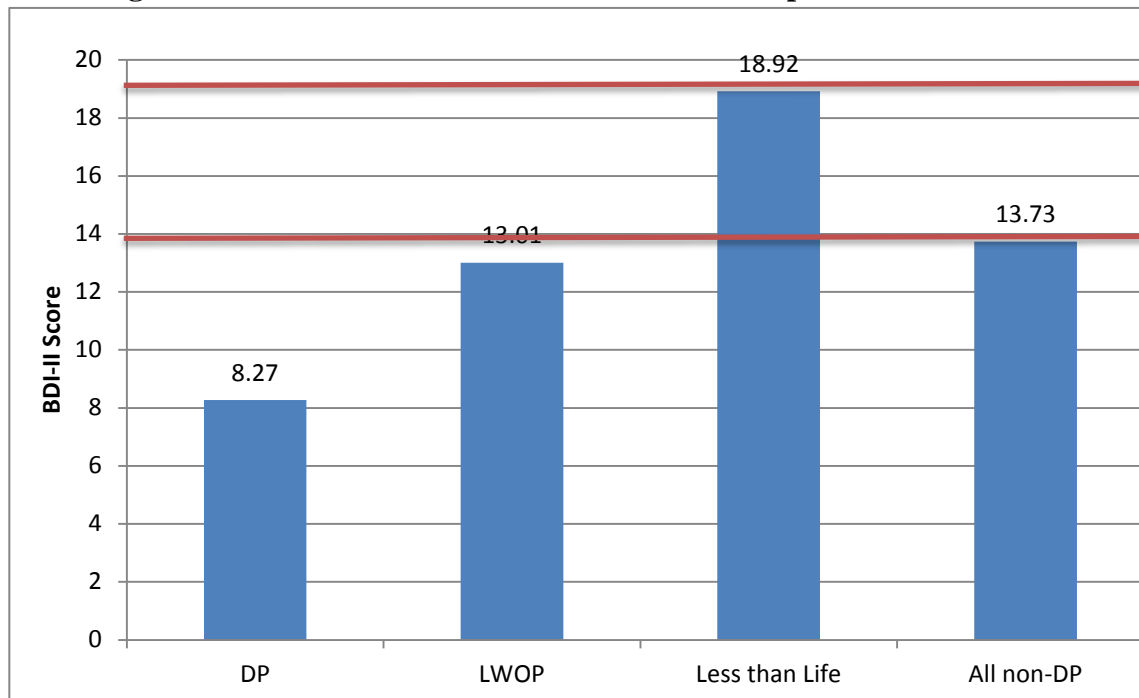
Depression was assessed via the BDI-II. Recall that higher total scores indicate more severe depressive symptoms (0–13: minimal depression; 14–19: mild depression; 20–28: moderate depression; and 29–63: severe depression). Observed scores among the total sample ranged between 0 and 54 (possible score range = 0–63; $X(SD) = 14.14(11.38)$). The mean BDI total score among the total sample is consistent with mild depression. The large standard deviations and the large variance in the total score indicate wide variability in the observed scores. Closer inspection of the data revealed only two outliers. Removal of the outliers did not significantly affect the data. Observed scores were non-normally distributed due to a demonstrable floor effect ($W(91) = .922, p < .001$). The final distribution of scores was both skewed ($skewness(SE) = 1.028(.251)$) and kurtotic ($kurtosis(SE) = 1.025(.498)$). Cronbach's alpha was very good ($\alpha = 0.933$). The distribution of categorical severity ratings among the total sample is portrayed in Figure 1.

Figure 1: Depression Severity for BDI-II Among Total Sample



Mean scores on the BDI for the main offender dispositions are depicted in Figure 2. The added lines represent cut points for depression categories mild and moderate.

Figure 2: Mean BDI-II Scores across Offender Dispositions



The logistic regression reported above suggests that the differences observed in BDI-II scores between the DP and non-death sentenced groups is not statistically significant and remains non-significant when confounding variables are held constant. Examined categorically, differences in scores between the DP and non-DP groups are not observed. That is, there is no statistically significant difference in the number of participants in the non-DP versus DP groups who fall into the minimal, mild, moderate and severe categories of depression ($\chi^2(3)=2.175, p=.537$). Closer inspection of the data affirms that, although LWOP and non-death sentenced participants have a greater mean total score than DP participants, the mean scores of both groups are in the minimally depressed category. Thus, neither statistical nor practical significance was observed for depression scores between groups because scores were low overall. The one potential exception to this finding is that of the observed discrepancy in scores between participants whose

offenders were sentenced to less than life versus the other offender outcomes. These participants' scores, on average, approached the moderate depression category.

Hypothesis 2A predicted a negative correlation between depression score and endorsement of closure. Mean scores on the BDI-II were, as predicted, significantly lower for those who endorsed closure ($X(SD) = 9.93$) than among those who denied it ($X(SD) = 16.37$; $U(87) = 571.50$; $p = .013$, $\rho = .340$). This finding suggests that, conceptually, there may be a link between the idea of closure and an absence of psychopathology as measured by depression.

Descriptive Results for Depression. Participants in the pre-trial group were almost one standard deviation above the total sample mean on the BDI ($X(SD) = 24.75(12.07)$), which would qualify them for the moderate depression categorization per BDI-II scoring guidelines. Following the DP group, the participants whose offenders were declared NGRI produced the lowest scores on the BDI ($X(SD) = 9.50(4.95)$). Participants with unsolved cases scored, on average, in the mild depression category ($X(SD) = 15.82(8.07)$), as did those bereaved of a murder-suicide event ($X(SD) = 17.50(16.30)$).

Posttraumatic Stress Disorder

Symptoms of PTSD were assessed via the PCL-C. Potential scores on the PCL-C range from 17 to 85. Observed scores among the total sample ranged from 17 to 74 with a mean of 34.80 ($SD = 13.62$). Consistent with recommended scoring protocol, all PCL-C items were totaled to comprise a total severity score. A total score of 30 or above is indicative of significant PTSD symptoms that would likely meet for a diagnosis of PTSD among a civilian population. Consistent with Hypothesis 3A, 53.5% ($n = 49$, missing = 5) of the current sample met criteria for PTSD at the time of the interview. Recommended cutoff scores on the PCL-C vary, however. Whereas the liberal cutoff score of 29 yields a diagnostic rate of 53.5% among the current

sample, a more conservative cutoff score of 44, also recommended in the literature, classifies 20.7% of the sample as presenting with syndromal PTSD. Put into the context of national community prevalence rates, the National Comorbidity Survey Replication (NCS-R) estimated a past year prevalence of community-dwelling US citizens as 3.5% (Kessler et al., 1995). Thus, consistent with Hypothesis 3B, participants in the current sample were more likely to meet for PTSD than were previously studied community samples.

Based on the modified administration described in the Method section, data were collected on current PTSD symptoms as well as retrospectively on trauma symptoms experienced within the first 6 months of the murder. Retrospective accounts of symptomatology are poor indicators of genuine presence or absence of psychopathology but are notable in terms of respondents' post hoc self-perceptions of relative functioning at two time points—the first 6 months following the homicide (“Then”) and the time at which the interview was administered (“Now”). Using a cutpoint score of 44, 70.7% of respondents ($n = 65$, missing = 12) endorsed enough symptoms to have met criteria for PTSD (or, more appropriately, ASD) within the first 6 months following the homicide. The high rates on the prospective measure and the continuity of elevated scores between the retro- and prospective measures suggests a high likelihood of a chronic course among persons bereaved by homicide.

Consistent with BDI-II data, scores on both the PCL-C-N and PCL-C-T were distributed non-normally. Scores were negatively skewed on the PCL-C-T (skewness = $-.767$, $SE = .269$) and positively skewed on the PCL-C-N (skewness = $.970$, $SE = .269$), indicating that, overall, participants reported more significant trauma symptoms within the first 6 months after the homicide than within the past month. A one-sample Kolmogorov-Smirnoff test affirms an asymptotic distribution for both the PCL-C-N ($D(86) = 1.123$, $p(2-sided) = .161$) and PCL-C-T

($D(80) = 1.194$, $p(2\text{-sided}) = .115$). Consistent with Hypothesis 3C, the mean score for the PCL-C-T ($X(SD) = 58.50(13.67)$) was significantly higher than that of the PCL-C-N ($X(SD) = 34.80(13.62)$), as reflected by a Wilcoxon signed-rank test ($Z(80) = 7.517$, $p < .001$). Scores on these measures were also significantly related to one another ($r_s = .367$, $p < .001$, $R^2 = .135$).

Mean total scores for the DP group and LWOP group were compared for the PCL-C-N and PCL-C-T. As reported above, contrary to Hypothesis 1, participants whose offenders received a death sentence endorsed fewer PTSD symptoms prospectively than did those whose offenders were not sentenced to death. Retrospectively, the difference in scores between groups approached significance ($U(44) = 336.00$, $p = .059$, $r = .281$). When the data are analyzed dichotomously, however, significant differences emerge in retrospective accounts of PTSD symptoms on the PCL-C-T ($\chi^2(1) = 7.26$, $p(2\text{-sided}) = .010$; Table 3). Differences were not observed in change scores on the PCL-C ($t(43) = .088$, $p = .930$), indicating that, despite differences in scores at the two time points, groups did not differ in the direction or amount of change in symptoms endorsed between just after the murder and the time the interview was conducted.

TABLE 2: PTSD Prevalence (PCL-C-N) by Offender's Sentence

	Offender's sentence			
		Death Penalty	Sentence other than death	Total
Does participant meet for PTSD (PCL-C > 44)?	No	21 95.5%	32 74.4%	53 81.5%
	Yes	1 4.5%	11 25.6%	12 18.5%
Total		22 100.0%	43 100.0%	65 100.0%

TABLE 3: PTSD Prevalence (PCL-C-T) by Offender's Sentence

	Offender's sentence			
		Death Penalty	Sentence other than death	Total
Did participant meet for PTSD (PCL-C-T > 44)?	No	9 40.9%	4 10.8%	13 22.0%
	Yes	13 59.1%	33 89.2%	46 78.0%
Total		22 100.0%	37 100.0%	59 100.0%

Hypothesis 2A projected an inverse relationship between closure and scores on the PCL-C-N. PCL-C-N scores among those who denied closure ($X(SD) = 36.42(14.24)$) and those who endorsed closure ($X(SD) = 31.22(11.03)$) were not significantly different from one another ($U(86) = 637.50, p = .113$). Therefore Hypothesis 2A was not supported by the data. This finding suggests the possibility that, conceptually, closure is unrelated to posttraumatic stress symptoms.

Descriptive Results of PTSD. Once again, participants whose offenders had not yet stood trial and who were relatively recently bereaved received scores indicative of the most active and severe symptomatology. On the PCL-C, the pre-trial participants' average score was 51.88 ($SD = 14.03$). This score is slightly greater than one standard deviation above the mean score for the total sample and is quite close to the mean score on the retrospective measure of PTSD symptoms among all participants. In fact, no participants in this group scored under the cut-off score, suggesting that this period of time and stage in the criminal justice process is particularly risky in terms of PTSD symptoms. Retrospectively (no participants were less than 6 months post-homicide), the mean PCL-C score ballooned to 65.00 ($SD = 10.09$) for the pre-trial participants. Although this mean is within one standard deviation of the mean PCL-C-T score for all participants, it is the highest score among the groups. Not surprisingly, the pre-trial

participants saw the least improvement in PCL-C scores over time (PCL-C change $X(SD) = 13.13(17.69)$). Those participants whose offenders had received a sentence less than LWOP also saw little improvement over time (PCL-C change $X(SD) = 17.33(15.33)$). Of note for these results are the large standard deviations, indicating wide variation in scores. The NGRI and murder-suicide mean scores on the PCL-C-N ($X(SD) = 29.50(4.95)$ and $X(SD) = 31.00(12.25)$, respectively) were close to the cutoff score. Participants whose cases remained open at the time of interview averaged a PCL-C-N score of 39.00 ($SD=12.25$), a score that was quite close to that of participants whose offenders had received a sentence less than LWOP ($X(SD) = 39.08(19.09)$).

Complicated Grief

Recall that possible scores on the ICG range between 0 and 76, with a proposed cutoff score of 30 to indicate a high likelihood of complicated grief. Consistent with Hypothesis 4A, ICG scores among the total sample tended to exceed the proposed cutoff. Scores on the standardized version of the ICG, which assess symptoms of complicated grief experienced at the time of the interview, revealed a mean score of 35.30 ($SD = 13.88$). Also, as hypothesized (Hypothesis 4B), scores on the modified version of the inventory, which assesses symptoms experienced within the first 6 months following the murder, revealed a higher mean score of 58.50 ($SD = 13.67$), a difference which is statistically significant ($Z(78) = 7.63, p < .001$). Modal scores on the ICG-N (mode = 41) and ICG-T (mode = 46) were less discrepant and a paired samples test indicates a high correlation between the retro- and prospective versions ($r = .628, p < .001$). Nearly half (47.7%) of the sample scored at or above the recommended cutoff on the ICG-N, whereas roughly three quarters (76.1%) of the sample scored at or above the cutoff on the ICG-T. Distributions of scores on both the ICG-N and ICG-T were non-normal ($W(80)=.944$,

$p = .002$; $W(80) = .914$, $p = .001$, respectively). Cronbach's alpha of .899 suggests very good scale reliability.

As reported above, in response to Hypothesis 1 with regard to complicated grief, no significant differences were detected between groups with alternative sentences when confounding variable were statistically held constant. Hypothesis 2A predicted a negative correlation between ICG-N scores and self-reports of closure. Analyses revealed that participants who endorsed closure scored lower on the ICG-N ($X(SD) = 21.32(14.31)$) than those who denied closure ($X(SD) = 29.32(14.19$; $U(87) = 587.50$, $p = .024$, $\rho = .350$), thereby lending support for Hypothesis 2A and suggesting the possibility that closure is conceptually related to the absence of complicated grief symptoms.

Change scores were calculated between the Now and Then self-reports of the ICG by subtracting Now scores from Then scores. Change scores indicate a wide range (min-max = -10—53, range = 63) with a mean change of 18.19 points ($SD=11.98$); that is, as predicted (Hypothesis 4B), scores on the ICG-T were, on average, roughly 18 points higher than scores on the ICG-N. A follow-up analysis to determine whether regression to the mean occurred as a function of time since the murder offers an explanation for this pattern reveals that time and change scores on the ICG-N share a moderate positive correlation ($r_s = .484$, $p < .001$, $R^2 = .234$), suggesting that scores tend to change more (in the direction indicative of less psychopathology and distress) as time goes on. Across the total sample, change scores were non-normally distributed ($W(79) = .961$, $p = .016$).

Descriptive Results of ICG.

Boxplots comparing the score distributions for each offender disposition are presented in Figure 3 for the ICG-N and Figure 4 for the ICG-T. Once again, those participants who were

awaiting trial at the time of interview appear to be more acutely symptomatic ($X(SD) = 51.50(10.41)$). Once again it should be underscored that these participants were, on average, 3.25 years post-homicide, and that the recency of the event is reflected in their higher rates of pathological grief. Their mean score on the retrospective account of the ICG ($X(SD) = 43.63(10.36)$), on the other hands, appears to be on par with those of the DP, LWOP, lesser sentenced, and unsolved cases, suggesting that all groups are recalling the experience of grief within the first 6 months of the murder similarly. NGRI participants 1 and 2, who were 9 and 38 years post-homicide, scored a 1 and 13, respectively, on the ICG-N and a 32 and 45 on the ICG-T. These score changes were almost equal (31 and 32 points, respectively). Both scores on the prospective measure are well under the recommended cutoff for the ICG and both scores on the retrospective measure exceed the cutoff. Of the four participants whose offenders had committed suicide during the course of the homicide, scores on the ICG-N ranged between 13 and 41 ($X(SD) = 25.67(14.19)$). These participants tended to score, on average, 20 points higher on the ICG-T ($X(SD) = 45.67(23.29)$).

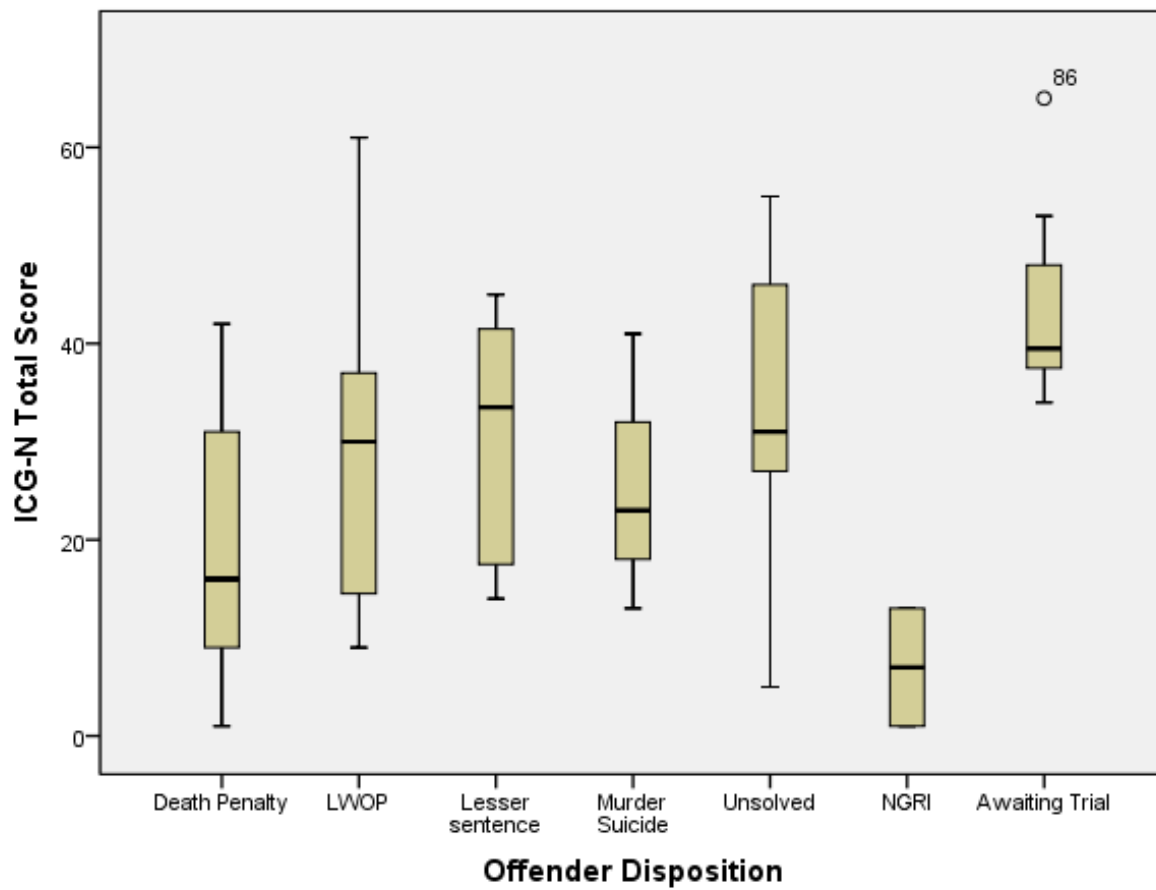
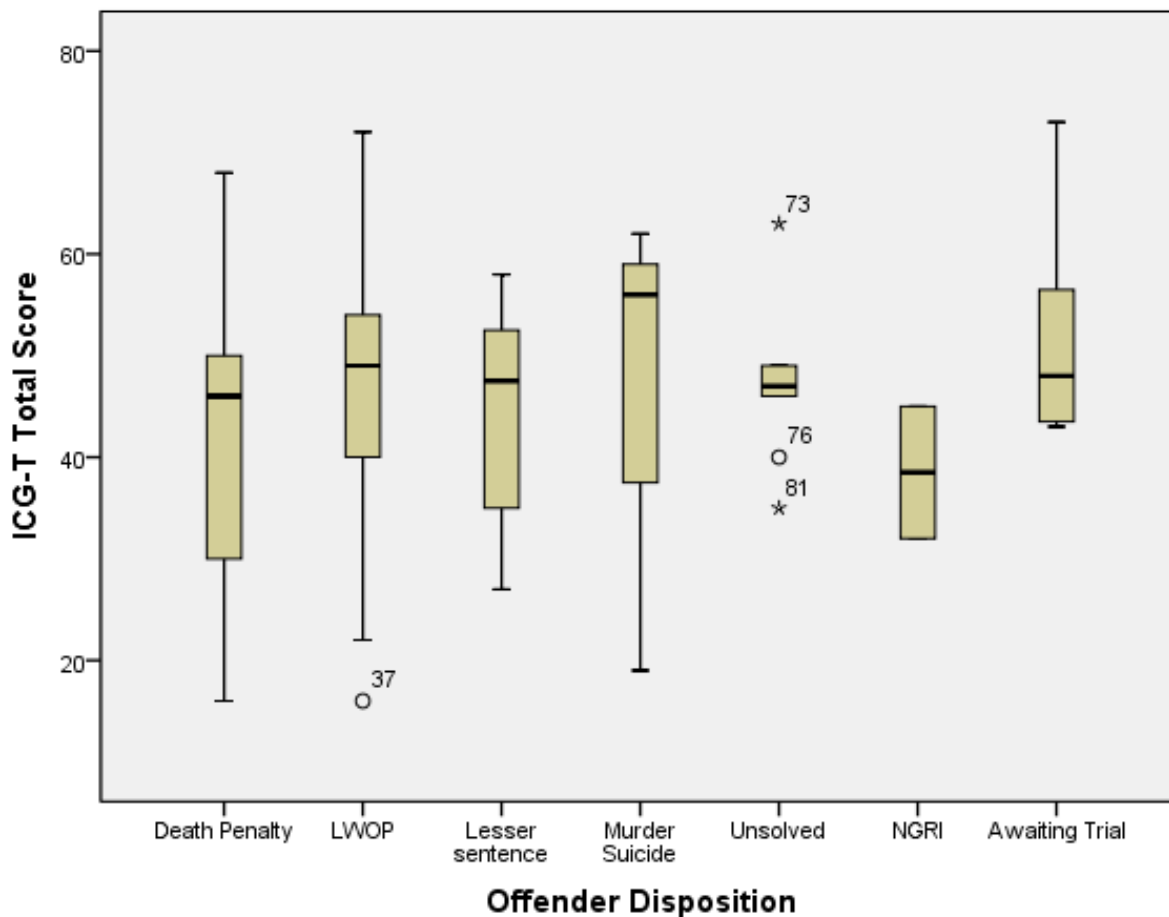
Figure 3: ICG-N Scores by Offender Disposition

Figure 4: ICG-T Scores by Offender Disposition



Quality of Life

Recall that higher scores on the Q-LES-Q-SF indicate greater satisfaction with aspects of the respondent's life, such as relationships, work, health, and recreational activities. Scores may range from 0 to 100. Observed scores among the current sample ranged between 26.79 and 100 with mean percentage scores at 70.19 (.95CI = 66.58--73.80, $SD = 17.43$, $SE = 1.82$). Scores were not normally distributed ($W(92)=.963$, $p=.011$) due to a negative skew (skewness(SE) = $-.571(.251)$) and were mildly kurtotic (kurtosis(SE) = $-.193(.498)$). Items 15 and 16 were omitted as they are not factored into the total raw or percentage scores, per scoring guidelines.

Cronbach's alpha for the first 14 items was very good ($\alpha = .906$) and consistent with that found in the literature.

Contrary to Hypothesis 2B, those participants who attained closure do not appear more likely to score higher on the Q-LES-Q-SF than those who did not endorse closure ($U(88) = 986.00, p = .191$). Scores on the Q-LES-Q-SF were not significantly different between the DP ($X(SD) = 78.30$) and LWOP ($X(SD) = 70.91(16.71)$) groups ($U = 255.0, p = .076$). When all non-death sentences are collapsed, however, a significant difference emerges ($X(SD) = 68.74(17.58)$; $U(69) = 343.50, p = .018$) with the DP group reporting greater quality of life than the non-death sentenced control group. This discrepancy may be related to the fact that participants included in the non-death sentenced control group were processing criminal justice outcomes that released or will release the murderers of their loved ones, whereas those whose offenders were serving DP or LWOP sentences were not. Thus, when only the groups whose offenders have received the Ultimate Penal Sanction are compared, closure appears to be conceptually unrelated to perceived quality of life.

Descriptive Results for Quality of Life. As aforementioned, low cell counts for select offender outcomes (NGRI, pre-trial, murder-suicide, and unsolved cases) prohibit inferential analyses. These groups are briefly discussed descriptively herein. Mean scores for each group were within one standard deviation of the mean of the total sample with the exception of those whose offenders had not yet stood trial ($X(SD) = 54.92(6.06)$). Participants who were in the pre-trial phase averaged lower quality of life scores ($X(SD) = 43.37(9.54)$) than participants whose offenders had been tried and sentenced. Participants in this group were, however, on average only 3 years out from the murder.

Closure

As predicted (Hypothesis 5), base rates of closure among the total sample were low when participants were explicitly asked whether they felt a sense of closure for the murder of their

loved ones. Among the total sample, 68.2% denied closure, whereas 31.8% endorsed closure. Participants were asked an open-ended follow-up question based on their yes or no response to the question of whether they felt they had attained closure. If participants had responded *yes*, they were asked what they believe has helped them achieve the sense of closure they reported and how they would describe the feeling of closure. If participants had responded *no*, they were asked if there was anything that they thought would help them feel closure. Inspection of the responses to these follow-up questions indicated a trend toward qualifying *yes* responses. For example, of the 29 participants who had endorsed closure, over one quarter either qualified or negated their endorsement of closure in a psychological sense. Three participants stated that closure does not exist, one participant endorsed “judicial closure only”, another participant followed up her affirmative response with “yes and no”, and another participant responded “yes and I hate that word”. Among the *no* responses, nearly half (44.4%) reported that they do not believe closure exists or is attainable.

In response to Hypothesis 6, chi square analyses were used to determine whether participants whose offenders were sentenced to death were either more or less likely to endorse closure than those whose offenders had received an alternative sentence. Fifty-nine percent ($n = 13$) of those in the DP group denied a sense of closure on interview, whereas 41% ($n = 9$) endorsed closure. Similarly, 62% ($n = 18$) of respondents in the LWOP group refuted closure and 38% ($n = 11$) endorsed attainment of closure, a difference which was not significantly different between the groups ($\chi^2(1) = .047, p = .829$). The distribution of responses to the question of closure was similar when the LWOP cell was combined with all sentences other than death, and no significant differences were detected between the DP and collapsed non-death sentenced group ($\chi^2(1) = .295, p = .587$).

The definition of closure outlined in Chapter 1 also presumes an absence of ruminations about the event and absence of disabling symptomatology. Item 1 of the ICG-N queries respondents about functional impairment due to intrusive and repetitive thoughts about the deceased. An item analysis reveals a mean score for the total sample of 1.40($SD=1.237$, $\text{min-max}=0-4$). Significant differences on this item were not detected between the DP and LWOP groups ($t(47) = -.718, p = .476$) nor between the DP and non-DP groups ($t(47) = -.916, p = .364$).

A Hierarchical Linear Regression was conducted to assess which factors affect endorsement of closure, including the sentence of the offender, heinousness of the crime, the number of years elapsed since the murder, and relationship to the victim ($n = 52$). Multicollinearity was not observed nor were residuals intercorrelated (Durbin-Watson = 2.110). Relationship to the victim was added first with all other variables entered into the second block. Model 1, which included only relationship to the victim, was the only significant model ($F(1)=7.137, p = .010$). Unexpectedly, neither time since the murder, sentence of the offender, nor heinousness contributed to the model. When evaluated independently, however, the degree to which participants felt that they had attained a relative return to baseline functioning was positively correlated with the number years that had elapsed since the murder ($\rho_s = .294, p = .008, R^2 = .086$). Controlling for penal sentence of the offender seems to strengthen this correlation ($\rho_s = .325, p = .019, R^2 = .105$).

Descriptive Results for Closure. Among the two respondents whose offenders were declared NGRI, participants were mostly split on the question of whether they had attained closure. One participant responded *no*, adding in the open-ended follow-up question that she would only attain closure “when I’m dead”. The other participant initially responded *yes* to the closure question, however, on follow-up, this participant stated, “Yes and no”, going on to state

that, although she does not worry about the offender or the offender's husband, the media and legal system exacerbated the experience of the trial and coming to terms with the murder.

Neither respondent indicated in their follow-up responses that the finding of NGRI affected whether or not they endorsed closure; rather, the murder and legal process as a whole seemed to play a larger role. All but one of the eight participants whose offenders were pre-trial or awaiting sentencing denied closure. The participant who endorsed closure cited routine and the support of family and friends as effectuating closure. Of the six participants whose offenders had committed suicide during the course of the homicide (murder-suicide), three endorsed and three denied closure. Nine of the 10 participants with unsolved cases denied closure. The sole participant in this group who endorsed closure followed up by stating, "I guess so...not sure you ever come to closure with a murder" and that reaching "a level of forgiveness" has helped her attain a sense of closure.

CHAPTER IV: DISCUSSION

Few studies have explored how the criminal justice process, and specifically, the case disposition for the murderer, may affect the aftermath of a homicide for the victim's loved ones. The present study attempted to gauge these effects by accounting for differential experiences of grief, PTSD, and domains of psychosocial functioning. The results of this study pertain to the notion of closure as it was defined herein—as a basic assessment of psychosocial functioning, relative return to baseline functioning, and absence of intrusive and distressing thoughts and images. Future research on the notion of closure may wish to define it differently, as what little previous scholarly work exists has so selected (e.g., Armour & Umbreit, 2006, 2012; Beike, Kleinknecht, Wirth-Beaumont, 2004; Beike & Wirth-Beaumont, 2005). Researchers should be cautioned that the term is heavily laden with sentiment, and may therefore be of diminished utility as a psychological construct.

Current Sample

Demographics. The demographics of the current sample are strikingly similar to previous research in this area with regard to gender and racial composition (e.g., Armour & Umbreit, 2012). Caution in interpreting and generalizing the current findings are, however, warranted. First, the race of victim in the current sample diverges significantly from the racial demographics of homicide victims in the U.S. population, in which blacks are disproportionately represented as homicide victims. In fact, the victimization rates for African Americans were, on average, six times higher than those for whites between 1976-2005 (Fox & Zawitz, 2010). More recent statistics reflect that this trend has prevailed into the twenty-first century (Heron et al., 2009). To the extent that we can presume that the race of the participant and the race of the victim were the same, the current sample of victims is not demographically representative of victims at the

national level and, as an extension, the sample of interviewed participants has diminished generalizability to the population of MVFM.

Previous research has evaluated the psychological sequelae of homicide among samples of African American MVFM. One such study (McDevitt-Murphy, Neimeyer, Burke, Williams, & Lawson, 2012) administered the same measures of PTSD, depression, and complicated grief that were administered in the current study to 54 mostly female African Americans. Rates of psychopathology among their sample were similar to those found among the current, mostly Caucasian, sample. The authors used a more conservative cutoff score for PTSD than was used in the current study. Using their cutoff score of 50 as indicative of active PTSD, McDevitt-Murphy and colleagues found a prevalence rate of 18.5%, compared to a rate of 12.8% among the current sample. Prevalence rates for depression (54% vs. 41.3% in current study) and complicated grief (54.5% vs. 45.7% in current sample) were also corresponding. Although the congruence in findings between the McDevitt-Murphy and colleagues study and the current study may alleviate some gross concerns that the current findings would not generalize to an African American sample, it does not extinguish them. Not only must future studies strive to balance a sample of MVFM with regard to racial demographics to ensure a representative sample and to determine whether there are unique post-homicide trajectories for different racial groups, the research community must continue to ask ourselves why minorities are underrepresented in research. The lack of representation of racial and ethnic minorities in the current sample echoes a long and documented history of skepticism of and reluctance to participate in scientific research among African Americans in particular (Freimuth, Quinn, Thomas, Cole, Zook, & Duncan, 2001), and underscores the importance of finding ways to earn trust among African American communities so that this research may better represent and serve them.

Of additional concern is the significant difference in relationship to the victim between the death sentenced and non-death sentenced groups, with participants in the LWOP group more likely to be a parent of a murdered child. Responses to the loss of a child are intense and prolonged (Rando, 1984; 1986), with death by criminal homicide generating the greatest distress among bereaved parents (Murphy et al., 1999; Murphy, 2008). The literature suggests that parents who experience the death of a child experience the most painful bereavement process and are especially burdened by an intense feeling of guilt (Strength, 1999). The fact that participants in the LWOP sample were more likely to be a parent of a murdered child represents a significant confound to understanding the relationship among this sample between the sentence of the offender and psychosocial functioning. A forward stepwise logistic regression permitted analysis of the relationship between these variables while statistically controlling for the relationship to the victim so that the true relationship between the dependent and independent variables could be better assessed.

Similarly, among the total sample, 56.5% were recruited through organizations that serve homicide victims in some capacity and 40.2% were not (3.3% missing data). LWOP participants were more likely to have been recruited via a service provider and to have had regular contact with a support group. Accordingly, this variable was also held constant.

Finally, the heinousness of the crime, discussed in greater detail below, and the time that had elapsed since the murder occurred may also have been affecting scores on measures of psychosocial functioning and were therefore also analyzed as covariates in order to hold any effect of these variables constant. The results suggest that sentence of the offender could not be predicted by scores on measures of depression, complicated grief, or quality of life. This result—relevant to Hypothesis 1—will be discussed more thoroughly below.

Predictor Variable Heterogeneity. Within group variability on the case disposition variable represents a limitation of the current study. Among the current sample, participants in the pre-trial and unsolved groups were different from those with other case dispositions with regard to time since the homicide, heinousness of the crime, and psychopathological outcomes. These differences call attention to what has emerged through this research study as an instructive warning that MVFM differ greatly from one another on a host of variables. To study this group without regard to these differences, as has been done in the past, would likely lead to spurious findings. A significantly larger sample comparing only DP (currently awaiting execution with appeals exhausted) and LWOP groups is necessary to begin to either minimize or control for the many variables on which these groups differ. The current results reflect a starting point in determining the answer to the question of whether particular CJS outcomes for offenders may affect the psychological wellbeing of the family members of the victim.

Psychopathology and the Post-homicide Grief Course

The issue of psychopathology among MVFM is of great concern to the current study, since clinicians and scholars have observed that symptoms of PTSD, depression, and bereavement overlap, yet neither a complicated nor traumatic grief are yet recognized by the *DSM*. The clinical implications of losing a loved one to murder are important for the correct classification, treatment, and prognosis of persons who come to clinical attention. Former studies have demonstrated PTSD reactions caused by the murder of a loved one (e.g., Barry, Kasl, & Prigerson, 2002; Bonanno & Kaltman, 1999; Kaltman & Bonanno, 2003; Momartin, Silove, Manicavasagar & Steel, 2004; Piper et al., 2011; Zisook, Chentsova-Dutton, & Shuchter, 1998). Both bereavement and PTSD have in common a specific exogenous etiology as a necessary precursor to symptoms as well as some symptom overlap. Further, learning of the murder of a

loved one is sufficient for meeting criterion A of PTSD. As a result, bereavement from homicide and PTSD are prone to diagnostic confusion. Although it was outside the scope of the current study to discern whether diagnoses for which participants qualify are appropriate as comorbid conditions or whether depressive and PTSD reactions should be superseded by complicated grief disorder, the study does provide commentary on the types of symptoms that are experienced post-homicide and rates of PTSD, complicated grief, and depression among the current sample. These findings and their implications will also be reviewed below.

In addition, assessment of psychopathology was valuable to the current study in that it provided an operational definition of closure. Although the current study did not strive to be a construct validation study, this study did articulate theoretical concepts related to closure, developed ways to measure this hypothetical construct, and tested the hypothesized relations. Recall that based on the reviewed literature, closure was defined as a relative return to baseline functioning, an absence of disabling symptomatology, and absence of ruminations regarding the murder (or hearing about the murder for the first time). Findings relevant to each of the three prongs of this operational definition will also be explored below.

Hypotheses 1—4: Depression, PTSD, and Complicated Grief.

Both the DP group and non-death sentenced groups' average scores on the BDI-II were in the minimal depression category. No significant difference in scores between these groups was detected and, overall, depression scores were relatively low. This finding suggests that grief, at least as it is experienced by MVFM, is conceptually and diagnostically distinct from depression and, while depression may still be a concern for this population, it may not be as chronic or as prevalent as PTSD over time. Such a finding may cause some confusion in light of the revised *Diagnostic and Statistical Manual, DSM-5* (American Psychiatric Association, 2013), which, for

the first time, suspends the bereavement exclusion for Major Depressive Disorder diagnoses. Because grief and depression share emotional, behavioral, and cognitive symptoms, it is often difficult to distinguish them from one another, particularly at the outset of the grief process (Hensley, Slonimski, Uhlenhuth, & Clayton, 2009). Traumatic grief reactions, in particular, are difficult to distinguish since typical markers of depression (e.g., guilt, suicidal ideation, functional impairment, and hallucinations) are also seen in complicated grief reactions. Zisook, Schuchter, Sledge, Paulus, & Judd (1994) estimated that approximately 7% of the bereaved suffer from a chronic bereavement-related depression. Results from this study suggest that this subset of survivors of traumatic death are more likely to suffer from a complicated grief course, however, than from depression, and that the grief symptoms experienced are more severe and chronic as well.

Participants in the current sample were a highly symptomatic group with regard to pathological grief and PTSD in particular. Nearly half of the total sample exceeded the recommended cut-off score on the ICG. This finding is consistent with previous studies finding higher scores on the ICG among MVFM as a whole (e.g., Lichtenthal et al., 2013) and parents of murdered children (e.g., Lichtenthal et al., 2013; Murphy, 2008) compared to family members bereaved by other causes. Similarly, a large proportion (at least one fifth of the total sample) met or exceeded the cutoff score on the PCL-C. Compared to rates of PTSD found among the general population (see Kessler, Sonnega, Bromet, Highes, & Nelson, 1995) and bearing in mind that participants were, on average, 15 years post-homicide, these results suggest that losing a loved one to murder is a risk factor for developing chronic PTSD. Thus, in response to the major debate regarding whether the constellation of symptoms most often associated with this

population are most consistent with PTSD, depression, or pathological grief, the current study seems to suggest that MVFM may be at highest risk of developing PTSD and complicated grief.

Hypothesis 1 predicted that scores on all three measures of psychopathology would be higher among the DP group than among the non-death sentenced group; that is, those participants whose offenders received a death sentence would be more symptomatic than those whose offenders had received an alternate sentence. The findings are nuanced and suggest partial support and partial nonsupport. Because the dataset is confounded by the fact that the LWOP group was more likely to be a parent of a murdered child and more likely to be connected to support groups, more sophisticated analyses were needed to address the question of the nature of the relationship between offender sentence and psychopathology. Once these variables were controlled statistically, only PTSD symptoms differed according to sentence of the offender, with DP participants reporting fewer symptoms than those whose offenders did not receive a death sentence.

Although a death sentence is not related to grief or depressive symptoms, there does appear to be a correlation between the sentence and resolution of trauma symptoms. Closer inspection of the data suggest that this finding may lack clinical significance, since (1) addition of the PCL-C added little predictive power to the regression model, and (2) the means of both the DP and non-DP groups are below the recommended cutoff for a PTSD diagnosis. Thus, although the 9-point discrepancy between groups was statistically significant, the clinical significance of this finding is mitigated by the fact that, on average, participants in both groups tended to score below the cutoff for a PTSD diagnosis. While the population is, overall, at a high risk for developing chronic PTSD, those whose offenders receive a sentence of death appear to be slightly less likely to develop as many symptoms as those whose offenders are not sentenced to

death. One theory as to why this relationship may exist is based on exposure therapy as a known effective treatment for PTSD (Chambless & Ollendick, 2001). Capital cases in which the death penalty is being sought require two trials—a guilt phase and a sentencing phase. In both trials, facts of the case are presented to the jury. Following the trial, mandatory appeals occur in which procedural as well as probative issues may once again be presented. Thus, MVFM in attendance are repeatedly exposed to the circumstances surrounding their loved one's death. MVFM whose offenders are not engaged in a capital case in which the death penalty is being sought or in which a sentence of death was not imposed by the jury receive less exposure to the provocative details of the case and may therefore continue to experience a greater number of PTSD symptoms.

Hypothesis 2 predicted that clinical symptoms would correlate with self-perceptions of closure. That is, that those participants who scored high on measures of psychopathology and low on the quality of life scale would endorse closure at lower rates than those who had not scored high on measures of psychopathology and had scored high on the Q-LES-SF-Q. The results partially support this hypothesis. Although neither quality of life nor PCL-C-N scores differed between the closure groups, BDI and ICG scores were significantly different. Those who endorsed closure were less likely to suffer from depression or complicated grief, but were just as likely to report symptoms of PTSD as closure deniers and to rate their quality of life similarly. The latter result may have been due to the ceiling effect found among quality of life scores. Despite the fact that PTSD is a common concern among the MVFM in the current sample, PTSD symptoms and closure appear to be unrelated. These results suggest a conceptual link between closure and depression and closure and complicated grief. The idiosyncratic nature of these findings suggests that further research is needed to explore the extent to which self-perceptions of closure attainment correspond to psychopathological symptoms. According to the

definition of closure provided in this document (which was not disclosed to participants), absence of disabling symptomatology is but one of three domains by which closure can be objectively assessed. The partial support for Hypothesis 2 may serve to substantiate this conceptualization of closure.

Hypothesis 3A-C, which posited high scores on the PCL-C, higher prevalence among the current sample than previously reported base rates, and higher retrospective PCL-C scores, were all supported. The rates of PTSD projected among the current sample were quite high, particularly when compared to community base rates of lifetime prevalence of PTSD. Resnick and colleagues (1993) conducted phone interviews with 4,008 US adult women and found prevalence of PTSD was 12.3% lifetime and 4.6% within the past 6 months. Their sample included persons bereaved by homicide, who were among those with the highest rates of PTSD. A more recent national survey, conducted between 2001 and 2003, speculated that the national lifetime prevalence of PTSD among adults is 6.8%, with past year PTSD estimated at 3.5% (Gradus, 2007). Thus, the rate among the current sample of MVFM is more than five times the past year prevalence among Americans as a whole. This finding is particularly troubling when reminded of the comorbidities of PTSD—suicidality, substance use disorders, major depressive disorder, and a number of other psychiatric conditions (Brady, Killeen, Brewerton, & Lucerini, 2000).

With regard to the latter finding that retrospective PCL-C and ICG scores were, as expected, predictive of prospective PCL-C and ICG scores, administering these measures early on may help to identify those MVFM who will later go on to develop PTSD and complicated grief. As previously mentioned, a pattern emerged from the question on the SVH-Q about return to baseline functioning, wherein participants were most likely to have experienced a return to

their new normal within the first 2 years post-homicide. Thus, prospective follow-up studies that administer the PCL-C and ICG within the first 2 years and again at set intervals may better validate these measures as screening instruments.

Similar to Hypotheses 3A-C, Hypotheses 4A and 4B, which had also projected high scores on the ICG and higher retrospective than prospective scores, were supported. Remarkably, nearly half of the sample met or exceeded the cutoff on the ICG-N and three-quarters exceeded the cutoff on the ICG-T, suggesting that (1) most MVFM tend to recall their grief experience in the first 6 months as severe and disabling, (2) even, on average, 15 years later, many MVFM continue to meet criteria for a pathological grief course, and (3) despite meeting criteria, respondents perceive themselves as far less symptomatic than they were immediately following the homicide.

No discernible differences in grief symptoms emerged between the DP and non-DP groups. Likewise, there was no significant difference detected in the grief trajectory; those in the DP group seem to have recovered at a commensurate pace with those in the LWOP and non-death sentenced comparison groups. Therefore, sentence of the offender did not appear to affect the grief course in a discernible way among the current sample.

Hypotheses 5 and 6: Closure Following a Murder

One of the objectives of the current investigation was to assess the extent to which closure is endorsed among a sample of MVFM, and whether endorsement of closure varies as a function of the perpetrator's penal sentence. As predicted in Hypothesis 5, closure was infrequently endorsed by the current sample. This was true whether closure was referred to by name or whether participants were questioned about the extent to which they felt they had returned to baseline functioning. In fact, nearly one-third of the sample stated that they had yet to

resume functioning at the level at which they were functioning prior to the murder. Interestingly, a large percentage of the sample (38%) reported that they had resumed baseline functioning within the first 2 years. This finding suggests the possibility of a sensitive period within the first 6-24 months following a murder, wherein if a survivor has not returned to baseline functioning within this time period, they are at high risk for a chronic and pathological grief course. While time and level of functioning were positively correlated, the amount of variance in functioning accounted for by the passage of time was quite small ($R^2 = .086$).

Among participants who denied closure, nearly one half spontaneously added that they do not believe closure is attainable. The discrepancy between respondents' (lack of) willingness to endorse closure and respondents' self-assessments of level of functioning reflects the theme that pervades both the data—that is, that MVFM learn to adjust to their new normal, but do not ever feel that they have fully recovered from the trauma of the loss.

Among the approximately one-third of the sample that endorsed closure, over one quarter either qualified or gainsaid their endorsement. Nearly half of those who denied personal attainment of closure stated that they do not believe closure exists or is attainable at all. Responses to the closure question underscore the controversy surrounding the term and, as in past research (e.g., Madeira, 2010), invoke the question of whether the term may be more harmful than beneficial.

The Effect of Sentencing on MVFM Closure. In response to the question of whether or not a death sentence is helpful in rendering closure on the murder of an individual's loved one, results indicate that there were no significant differences in one's self-perception of closure among those respondents whose offenders received DP versus those whose offenders had received an alternative sentence. This finding was replicated for all ways in which closure was

assessed. Although Hypothesis 6, which states that the DP group will have lower closure rates than non-death sentenced control groups, was not supported, the finding that there is no statistically significant difference between the groups is of practical significance. In this case, the null hypothesis that penal sentence has no effect on endorsement of closure may cast doubt on use of the DP on the basis of facilitation of closure for the MVFM. One must also consider how popular discourse on the topic may affect MVFM responses to questions regarding attainment of closure. One question raised by the current study is whether MVFM who are engaged in the process of a capital trial in which the death penalty is being sought and who are exposed to the message that a death sentence will provide psychological closure would be more prone to endorse closure? If so, the mechanism underlying this process may be one of cognitive dissonance, in which tension between what is believed and what occurs causes one to either alter their beliefs (in this case, that the death penalty does not engender closure) or alter their perceptions (in this case, that they did attain closure). If this was true, then a participant's current level of support for the DP and whether or not his/her offender received a death sentence may be more important to the question of closure than the sentence itself. Preliminary results suggest the possibility that closure may be related to relationship to the victim (with parents of murdered children being the least likely to endorse) and is unrelated to offender disposition, the time since the murder occurred, or the heinousness of the crime itself.

Armour and Umbreit's recent (2012) investigation into the application of the ultimate penal sanction sheds much-needed light on this question, since for half of the participants interviewed the death penalty represented the ultimate penal sanction and for the other half LWOP represented the ultimate penal sanction. Armour and Umbreit's (2012) findings did not support the assertion that the death penalty led to MVFM endorsing closure at higher rates. In the

current study, receipt of the UPS was not found to be correlated with closure. Instead, participants' satisfaction with the sentence (regardless of what the sentence was) was correlated with closure. The potential implication of this finding is that families of murder victims should be consulted on whether a death sentence is sought.

Exploratory Findings

Heinousness. Because there is no objective or standardized assessment of heinousness (McPherson, 2002; Rosen, 1986), the assessment of heinousness selected for this study was intended to maximize ecological validity by simulating, to the extent possible, the way that heinousness is assessed in the real world. That is, a subjective assessment by jurors on the basis of facts of the crime revealed during the trial (in non-capital cases) or sentencing phase (in the bifurcated capital trial). Three independent raters, all jury-eligible English-speaking United States citizens were instructed to assign each crime summary a rating on a 5-point scale. Consistent with previous research on the arbitrary nature of heinousness assessments, moderate interrater reliability was attained and no correlation was detected between heinousness and death sentence. The latter finding defies common sense logic concerning cases that would be projected to be rated as more heinous, since heinousness is an aggravating factor in the penalty phase of a capital trial. This finding is, however, consistent with previous research suggesting that capital cases that receive death sentences are not consistently more heinous, atrocious, and cruel than are those that do not result in a sentence of death (e.g., Adger, In Press; Koletti, 2001). Further research is sorely needed to systematically evaluate how heinousness contributes to decisions of offender sentencing and how it may or may not be relevant to the grief course of MVFM.

Time. On average, approximately 15 years had elapsed between the murder and the date of the interview. Death- and non-death-sentenced groups were no different with regard to this

variable. Interestingly, time was not found to correlate with self-perceptions of closure. Once again, these results highlight the disjuncture between self-perceptions of closure and measures of the experience of psychiatric symptoms. They also raise the possibility that, contrary to the focus of this research on the therapeutic value of offenders' sentences, the sentence of the offender may in fact be mediated by the time that has passed since the murder occurred. Future research should evaluate this potentiality.

The pre-trial group, which was excluded from all inferential analyses, was only 3 years post-murder. Because of the significantly shorter duration between the murder and the interview, the pre-trial group was remarkably more symptomatic. For most outcome measures, the pre-trial group scored comparably to the retrospective accounts, when available for comparison. Although the sample size of pre-trial MVFM is too small to draw extrapolations, particular attention should be paid to MVFM during the vulnerable pre-trial period. This group will be discussed further below.

Descriptive Findings: Offenders with Nontraditional Outcomes

Multiple case dispositions were sampled but did not attain high enough cell counts to be included in inferential analyses. These groups included participants whose offenders were pre-trial, unsolved cases, murder-suicides, and offenders declared NGRI. Descriptive analyses provide some insights into the psychosocial functioning of these participants; however, extreme caution should be taken in interpreting these results given the few participants sampled. These data should not be extrapolated to MVFM with similar offender dispositions.

Few discernible patterns emerged among these participants' outcome measures. For all psychological measures, the pre-trial participants consistently stood out as the most distressed. Because of the effect of time on measures of distress, this finding is likely attributable to the

recency of the murder, but is also likely compounded by frequent contact with the criminal justice system, perpetrator, and/or media. On the question of closure, nearly all of the participants with unsolved cases denied closure, as would be expected for cases with such little information about the crime, motive, or assailant(s). Similarly, pre-trial participants mostly denied closure, which was also expected since the adjudicative process was just getting started. Both participants whose offenders were declared insane essentially refuted closure, citing the media, the legal system, and the murder as inhibiting a sense of closure.

Limitations

This study employed multiple techniques for accessing a representative sample of a traditionally hard-to-reach population, including adaptive, snowball and quota sampling. Adaptive and snowball sampling have become accepted strategies for social researchers to access vulnerable, underserved, or impenetrable social groups (Atkinson & Flint, 2001; Martsoff et al., 2006; Sadler, Lee, Lim, & Fullerton, 2010) and quota sampling is a commonly used technique to ensure representative sampling and maximize external validity. Although the current sample is demographically similar to previous studies of this population (e.g., Armour & Umbreit, 2012), it failed to attract a sample that was as racially diverse as the population of MVFM. This failing may have been due to Caucasian-normative recruitment materials; a reluctance among some minority groups to reveal personal information because of the risk of social, political, or emotional repercussions (Russell, Maraj, Wilson, Shedd-Steele, & Champion, 2008); or lack of exposure to recruitment materials among minority prospective participants. Thus, despite a diverse sampling frame, the racial composition of the final sample was not representative of the MVFM population. In addition, participants whose offenders received a non-death sentence were significantly more likely to be parents of murdered children and to have current or historical

engagement in support groups. These sampling features were the most potentially detrimental to the interpretation of the current set of results as each represented a significant confounding variable. Statistical techniques have attempted to correct for this data feature.

Finally, because the death penalty sample was comprised of participants whose offenders were awaiting execution and those who had been executed, it cannot be determined whether observations are due to the death sentence or the execution. Although this clarification is not provided in closure rhetoric, future studies should strive to subdivide the death penalty group into executed, exonerated, and awaiting execution groups in order to try to assess whether the emotional functioning of the MVFM with these different case dispositions differ.

Conclusions and Future Directions

Previous scholars have claimed a disjuncture between emotional closure and the defendant's case disposition (Armour & Umbreit, 2012; Bandes, 2009; Madeira, 2010; Vollum & Longmire, 2007). Results of this study partially support this claim. The current study was intended to inform the merits of the DP in providing a psychologically therapeutic function for MFVM. In order to assess the legitimacy of this reputed function, this study measured symptoms of mental illness and quality of life to appraise psychosocial functioning and establish its correlates with a subjective sense of closure among MVFM at various points post-homicide. Results of this study indicate that capital punishment may be correlated with enhanced long-term psychological functioning but is no more likely to cause MVFM to perceive the event as "closed" or to lead to a more expedient return to a MVFM's pre-murder functioning. Results of the current study may justify future funded research with a larger, more representative sample and, if possible, random sampling procedures, as it is possible that the current study lacked

sufficient power to detect a true relationship between self-perceptions of closure and penal sentence and was confounded by other variables.

This study may also serve to assist MVFM by providing insight into their psychological experiences. Studies that can provide such insight are needed to inform policy, research, and clinical practice for this population (Armour, 2002a; 2002b; Sprang, McNiel, & Wright, 1989). By assessing post-homicide mental health sequelae, loss or impairment of functioning, and the notion and degree of closure among MVFM, the study provides a nomothetic glimpse into the psychological functioning of MVFM. Future studies may help better guide mental health professionals, court personnel, and victim advocates to meet the unique needs of this historically underserved population.

In sum, the product of this dissertation may be helpful at both the local level by victim advocacy services, District Attorney offices, homicide support groups, and mental health practitioners, but also at the more global level by promoting renewed attention among the Department of Justice, courts, and legislature on the death penalty debate and initiating a line of research that may potentially inform future policy reform regarding ultimate penal sanctions. An important and timely example of this is in Florida's recent bill calling for mandatory expedition of executions following a case's review by the state Supreme Court. The bill's sponsor and supporters argue that the legislation would engender closure for the surviving families (Weber, 2013). As Florida's recent bill elucidates, the current study and those that follow it can help to inform discussions regarding the effects of criminal justice sanctions. The current study has provided some insight into the psychological sequelae of homicide and into the questions of whether closure can and should be used to describe the post-homicide experience for all or a

subset of the MVFM population. This study paves the way for more sophisticated research questions and methodology.

References

- Adger, J. (In Press). Quantifying the “worst of the worst”: Victim, offender and crime characteristics contributing to “Heinous, Atrocious, or Cruel” findings in Alabama death penalty cases.
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders (4th Ed.)*. Washington, DC: Author.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders (4th Ed.—Text Revision)*. Washington, DC: Author.
- American Psychiatric Association (2013). *Diagnostic and Statistical Manual of Mental Disorders (5th Ed)*. Washington, DC: Author.
- Amick-McMullan, A., Kilpatrick, D. G., & Resnick, H. S. (1991). Homicide as a risk factor for PTSD among surviving family members. *Behavior Modification, 15*, 545-559.
- Amick-McMullan, A., Kilpatrick, D. G., Veronen, L. J., & Smith, S. (1989). Family survivors of homicide victims: Theoretical perspectives and an exploratory study. *Journal of Traumatic Stress, 2*, 21-35.
- Armour, M. P. (2002a). Experiences of covictims of homicide: Implications for research and practice. *Trauma, Violence, and Abuse, 3*, 109-124.
- Armour, M. P. (2002b). Journey of family members of homicide victims: A qualitative study of their posthomicide experience. *American Journal of Orthopsychiatry, 72*, 372-382.
- Armour, M. P., & Umbreit, M. S. (2006). Exploring “closure” and the ultimate penal sanction for survivors of homicide victims. *Federal Sentencing Reporter, 19*, 105-112.
- Armour, M. P., & Umbreit, M. S. (2012). Assessing the impact of the Ultimate Penal Sanction on homicide survivors: A two state comparison. *Marquette Law Review, 96*, 1-131.

- Atkinson, R., & Flint, J. (2001, Summer). Accessing hidden and hard-to-reach populations: Snowball research strategies. *Social Research Update*. Retrieved July 23, 2013, from <http://sru.soc.surrey.ac.uk/SRU33.html>
- Bandes, S. (2000). When victims seek closure: Forgiveness, vengeance, and the role of the government. *Fordham Urban Law Journal*, 27, 1599-1606.
- Barnes, P. G. (1996). Final reckoning: States allow victims' families to watch executions. *ABA Journal*, 82, 36-37.
- Barry, L. C., Kasl, S. V., & Prigerson, H. G. (2002). Psychiatric disorders among bereaved persons: The role of perceived circumstances of death and preparedness for death. *American Journal of Geriatric Psychiatry*, 10, 447-457.
- Beck A. T., Steer R. A., & Brown G. K. (1996). *Manual for the Beck Depression Inventory-II*. San Antonio, TX: Psychological Corporation.
- Beike, D. R., Kleinknecht, E. E., & Wirth-Beaumont, E. T. (2004). How emotional and non-emotional memories define the self. In D. R. Beike, J. T. Lampinen, & D. A. Behrend (Eds.), *The self and memory* (pp. 141-159). Hove, UK: Psychology Press.
- Beike, D. R., & Wirth-Beaumont, E. T. (2005). Psychological closure as a memory phenomenon. *Memory*, 13, 574-593.
- Berns, N. (2009). Contesting the victim card: Closure discourse and emotion in death penalty rhetoric. *Sociological Quarterly*, 50, 383-406.
- Best, J. (1990). *Threatened children: Rhetoric and concern about child-victims*. Chicago, IL: University of Chicago Press.
- Blanchard, E. B., Jones-Alexander, J., Buckley, T. C., Forneris, C. A. (1996). Psychometric properties of the PTSD Checklist (PCL). *Behaviour Research and Therapy*, 34, 669-673.

- Boland, M., Sweeney, M. R., Scallan, E., Harrington, M., & Staines, A. (2006). Emerging advantages and drawbacks of telephone surveying in public health research in Ireland and the U.K. Retrieved March 1, 2008, from <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1560130>
- Bonanno, G. A., & Kaltman, S. (1999). Toward an integrative perspective on bereavement. *Psychological Bulletin, 125*, 760–776.
- Brady, K. T., Killeen, T. K., Brewerton, T., & Lucerini, S. (2000). Comorbidity of psychiatric disorders and posttraumatic stress disorder. *Journal of Clinical Psychiatry, 61*, 22-32.
- Breen, L. J., & O'Connor, M. (2007). The fundamental paradox in the grief literature: A critical reflection. *Omega: Journal of Death and Dying, 55*, 199-218.
- Breslau, N., Kessler, R. C., Chilcoat, H. D., Schultz, L. R., Davis, G. C., & Andreski, P. (1998). Trauma and posttraumatic stress disorder in the community: The 1996 Detroit area survey of trauma. *Archives of General Psychiatry, 55*, 626-632.
- Brownlee, S., McGraw, D., & Vest, J. (1997). The place for vengeance: Many grieving families seek comfort and closure in the execution of a murderer. Do they find it? *U.S. News and World Report, 122*, 24-32.
- Buck, N. L. (1991). Grief reactions and effective negotiation. *Negotiation Journal, 7*, 69-86.
- Chambless, D. L., & Ollendick, T. H. (2001). Empirically supported psychological interventions: Controversies and evidence. *Annual Review, 52*, 685-716.
- Cortez, D. (2006, Aug). Sentencing brings closure. *Detroit Free Press*. Retrieved November 23, 2008, from <http://www.highbeam.com/doc/1G1-156322505.html>.

- Danovitch, I., & Endicott, J. (2008). Quality of life measures. In A. J. Rush Jr., M. B. First, & D. Blacker (Eds.), *Handbook of psychiatric measures* (2nd ed, pp. 125-140). Arlington, VA: American Psychiatric Publishing, Inc.
- Danto, B. L. (1982). Survivors of homicide: The unseen victims. In B. L. Danto, J. Bruhns, & A. H. Kutscher (Eds.), *The human side of homicide* (pp. 85-97). New York: Columbia University Press.
- Death Penalty Focus. (n.d.). Death penalty can prolong suffering for victims' families. Retrieved June 21, 2013, from <http://www.deathpenalty.org/article.php?id=56>
- Death Penalty Information Center. (n.d.). Time on death row. Retrieved March 10, 2010, from <http://www.deathpenaltyinfo.org/time-death-row>
- Elhai, J., Engdahl, R., Palmieri, P., Naifeh, J., Schweinle, A., & Jacobs, G. (2009). Assessing posttraumatic stress disorder with or without reference to a single, worst traumatic event: Examining differences in factor structure. *Psychological Assessment, 21*, 629-634.
- Endicott, J., Nee, J., Harrison, W., & Blumenthal, R. (1993). Quality of life enjoyment and satisfaction questionnaire: A new measure. *Psychopharmacology Bulletin, 29*, 321-326.
- Endicott, J., Paulsson, B., Gustafsson, U., Schiöler, H., & Hassan, M. (2008). Quetiapine monotherapy in the treatment of depressive episodes of bipolar I and II disorder: Improvements in quality of life and quality of sleep. *Journal of Affective Disorders, 111*, 306-319.
- Engelhard, I. M., van den Hout, M. A., & McNally, R. J. (2008). Memory inconsistency for traumatic events in Dutch soldiers deployed to Iraq. *Memory, 16*, 3-9.

- Forbes, D., Cramer, M., & Biddle, D. (2001). The validity of the PTSD Checklist as a measure of symptomatic change in combat-related PTSD. *Behaviour Research & Therapy*, *39*, 977-986.
- Forstmeier, S., & Maercker, A. (2007). Comparison of two diagnostic systems for Complicated Grief. *Journal of Affective Disorders*, *99*, 203-211.
- Fox, J. A., & Zawitz, M. W. (2010). Homicide trends in the United States. Retrieved July 11, 2013, from <http://www.bjs.gov/content/pub/pdf/htius.pdf>.
- Freedly, J., Resnick, H., Kilpatrick, D., Dansky, B., & Tidwell, R. (1994). The psychological adjustment of recent crime victims in the criminal justice system. *Journal of Interpersonal Violence*, *9*, 450-468.
- Freidman, R., & James, J. W. (2008). The myth of the stages of dying, death and grief. Retrieved June 16, 2010, from <http://www.grief.net/Articles/Myth%20of%20Stages.pdf>
- Freimuth, V., Quinn, S. C., Thomas, S. B., Cole, G., Zook, E., & Duncan, T. (2001). African Americans' views on research and the Tuskegee Syphilis experiment. *Social Science and Medicine*, *52*(5), 797-808. doi: [http://dx.doi.org.ez.lib.jjay.cuny.edu/10.1016/S0277-9536\(00\)00178-7](http://dx.doi.org.ez.lib.jjay.cuny.edu/10.1016/S0277-9536(00)00178-7),
- Furedi, F. (2004). *Therapy culture*. London: Routledge Press.
- Getzel, G. S., & Masters, R. (1984). Serving families who survive homicide victims. *Journal of Contemporary Social Work*, 138-144.
- Gibbons, T. (1988). Victims again: Survivors suffer through capital appeals. *ABA Journal*, *74*, 66-68.
- Gradus, J. L. (2007, January). Epidemiology of PTSD. Retrieved July 22, 2013, from <http://www.ptsd.va.gov/professional/pages/epidemiological-facts-ptsd.asp>

- Hansson, R. O., Carpenter, B. N. & Fairchild, S. K. (1993). Measurement issues in bereavement. In M.S. Stroebe, W. Stroebe, & R. O. Hansson (Eds.) *Handbook of bereavement: Theory, research, and intervention* (pp. 62-74). Cambridge, UK: Cambridge University Press.
- Hatton, R. (2001). Helping people cope with homicide bereavement. *Dissertation Abstracts International: Section B: The Sciences and Engineering*, 61, 5565-5738.
- Henderson, L. (1985, April). The wrongs of victim's rights. *Stanford Law Review*, 37. Retrieved February 9, 2008, from Lexis Nexis.
- Hensley, P. L., Slonimski, C. K., Uhlenhuth, E. H., & Clayton, P. J. (2009). Escitalopram: An open-label study of bereavement-related depression and grief. *Journal of Affective Disorders*, 113(1-2), 142-149. doi: 10.1016/j.jad.2008.05.016
- Heron, M., Hoyert, D. L., Murphy, S. L., Xu, J., Kochanek, K. D., & Tejada-Vera, B. (2009). Deaths: Final data for 2006. *National Vital Statistics Reports*, 57, 1-134.
- Horowitz, M. J., Siegal, B., Holen, A., Bonanno, G. A., Milbrath, C., & Stinson, C. H. (1997). Diagnostic criteria for Complicated Grief Disorder. *The American Journal of Psychiatry*, 154, 904-910.
- Jacobs, S. C., Nelson, J. C., Zisook, S. (1987). Treating depressions of bereavement with antidepressants: A pilot study. *Psychiatric Clinics of North America*, 10, 501-510.
- Kaltman, S., & Bonanno, G. A. (2003). Trauma and bereavement: Examining the impact of sudden and violent deaths. *Journal of Anxiety Disorders*, 17, 131-147.
- Kanwar, V. (2001). Capital punishment as 'closure': The limits of a victim-centered jurisprudence. *Review of Law & Social Change*, 27, 215-255.
- Kaminsky, A. R. (1985). *The victim's song*. Buffalo, NY: Prometheus Books.

- Kessler, R. C., Chiu, W. T., Demler, O., & Walters, E. E. (2005). Prevalence, severity, and comorbidity of twelve-month DSM-IV disorders in the National Comorbidity Replication (NCS-R). *Archives of General Psychiatry*, *62*(6), 617-627.
- Kessler, R. C., Sonnega, A., Bromet, E., Hughes, M., & Nelson, C. B. (1995). Posttraumatic stress disorder in the National Comorbidity Survey. *Archives Of General Psychiatry*, *52*(12), 1048-1060. doi:10.1001/archpsyc.1995.03950240066012
- Kilpatrick, D. G., & Tidwell, R. (1989). *Victims' rights and services in South Carolina: The dream, the law, the reality*. Charleston, South Carolina: Crime Victims Research and Treatment Center, MUSC.
- Koletti, C., & Williams, K. D. (2001, February). The effects of trial heinousness and victim's reputation on mock juror verdicts. Presented at the 1st International Conference on Forensic Psychology, Sydney, Australia.
- Langer, G. (2001). Death penalty ambivalence: Poll points to support for execution moratorium in U.S. Retrieved March 10, 2010, from http://abcnews.go.com/sections/us/dailynews/poll010504_deathpenalty.html
- Lichtenthal, W. G., Neimeyer, R. A., Currier, J. M., Roberts, K., & Jordan, N. (2013). Cause of death and the quest for meaning after the loss of a child. *Death Studies*, *37*(4), 311-342. doi:10.1080/07481187.2012.673533
- Lindsay, C. J. (1982, November). *The Practice and Ethics of Telephone Survey Research: An Applied Perspective*. Paper presented at the Annual Meeting of the Speech Communication Association, Louisville, KY.

- McDevitt-Murphy, M. E., Neimeyer, R. A., Burke, L. A., Williams, J. L., & Lawson, K. (2012). The toll of traumatic loss in African Americans bereaved by homicide. *Psychological Trauma: Theory, Research, Practice, and Policy*, 4(3), 303-311. doi: 10.1037/a0024911
- McPherson, S. B. (2002). Heinousness in capital crimes: Myths of proportionality and social protection. *International Journal of Law and Psychiatry*, 25, 459-472.
- Maciejewski, P. K., Zhang, B., Block, S. D., & Prigerson, H. G. (2007). An empirical examination of the stage theory of grief. *JAMA: Journal of the American Medical Association*, 297, 716-723.
- Madeira, J. L. (2008). Blood relations: Collective memory, cultural trauma, and the prosecution and execution of Timothy McVeigh. *Studies in Law, Politics, and Society*, 45, 75-138.
- Madeira, J. L. (2010). Why rebottle the genie? Capitalizing on closure in the capital punishment context. *Indiana Law Review*, 85.
- Marikangas, K. R., Akiskal, H. S., Angst, J., Greenberg, P. E., Hirschfeld, R., Petukhova, M., & Kessler, R. C. (2007). Lifetime and 12-month prevalence of bipolar spectrum disorder in the National Comorbidity Survey Replication. *Archives of General Psychiatry*, 64(5), 543-552. doi: 10.1001/archpsyc.64.5.543
- Martsoff, D. S., Courey, T. J., Chapman, T. R., Draucker, C. B., & Mims, B. L. (2006). Adaptive sampling: Recruiting a diverse community sample of survivors of sexual violence. *Journal of Community Health Nursing*, 23(3), 169-182.
- Melnick, J., & Roos, S. (2007). The myth of closure. *Gestalt Review*, 11, 90-107.
- Mezey, G., Evans, C., & Hobdell, K. (2002). Families of homicide victims: Psychiatric responses and help-seeking. *Psychology and Psychotherapy: Theory, Research, and Practice*, 75, 65-75.

- Millon, T., Blaney, P. H., & Davis, R. D. (1999). *Oxford textbook of psychopathology*. New York: Oxford University Press.
- Momartin, S., Silove, D., Manicavasagar, V., & Steel, Z. (2004). Complicated grief in Bosnian refugees: Associations with posttraumatic stress disorder and depression. *Comprehensive Psychiatry, 45*, 475–482.
- Mowrer, O. H. (1960). *Learning theory and behavior*. Wiley, New York.
- Murphy, S. A. (2008). The loss of a child: Sudden death and extended illness perspectives. In M. S. Stroebe, R. O. Hansson, H. Schut, W. Stroebe (Eds.), *Handbook of bereavement research and practice: Advances in theory and intervention* (pp. 375-395). Washington, DC US: American Psychological Association.
- Murphy, S. A., Braun, T., Tillery, L., Cain, K. C., Johnson, & Beaton, R. D. (1999). PTSD among bereaved parents following the violent deaths of their 12- to 28-year-old children: A longitudinal prospective analysis. *Journal of Traumatic Stress, 12*, 273-291.
- National Technical Information Service, U.S. Department of Commerce (n.d.). *PTSD Basics*. Retrieved October 28, 2009, from <http://www.ntis.gov/pdf/ptsdbasicstext.pdf>
- Neimeyer, R. A. (2006). Bereavement and the quest for meaning: Rewriting stories of loss and grief. *Hellenic Journal of Psychology, 3*, 181-188.
- Neimeyer, R. A., Hogan, N., & Laurie, A. (2008). The measurement of grief: Psychometric considerations in the assessment of reactions to bereavement. In M. S. Stroebe, R. O. Hansson, H. Schut & W. Stroebe (Eds.), *Handbook of bereavement research and practice: Advances in theory and intervention* (pp. 133–186). Washington, DC: American Psychological Association

- Norris, F. H. (1992). Epidemiology of trauma: Frequency and impact of different potentially traumatic events on different demographic groups. *Journal of Consulting and Clinical Psychology, 60*, 409-418.
- Novick, G. (2008). Is there a bias against telephone interviews in qualitative research? *Research in Nursing & Health, 31*, 391-398.
- Parkes, C. M. (1993). Psychiatric problems following bereavement by murder or manslaughter. *British Journal of Psychiatry, 162*, 49-54.
- Pasternak, R. F., Reynolds III, C. F., Schlernitzauer, M. A., Hoch, C. C., Buysse, D. J., Houck, P. R., & Perel, J. M. (1991). Open-trial nortriptyline therapy of bereavement-related depression in late life. *Journal of Clinical Psychiatry, 52*, 307-310.
- Piper, W. E., Ogrodniczuk, J. S., Joyce, A. S., & Weideman, R. (2011). Risk factors for complicated grief. In , *Short-term group therapies for complicated grief: Two research-based models* (pp. 63-106). Washington, DC US: American Psychological Association. doi:10.1037/12344-003
- Pivar, I. (2007). Traumatic grief: Symptomatology and treatment for the Iraq war veteran. Retrieved June 18, 2010, from <http://www.ptsd.va.gov/professional/pages/tgs-treatment-iraq-war.asp>
- Prigerson, H.G., Bierhals, A. J., Kasl, S. V., Reynolds III, C. F., Shear, K., Newsom, J. T., & Jacobs, S. (1996a). Complicated grief as a disorder distinct from bereavement-related depression and anxiety: A replication study. *The American Journal of Psychiatry, 153*, 1484-1486.
- Prigerson, H. G., & Jacobs, S. (2001). Traumatic grief as a distinct disorder: A rationale, consensus criteria, and a preliminary empirical test (p. 613–645). In: M.S. Stroebe, R.O.

- Hansson, W. Stroebe and H. Schut (Eds.), *Handbook of Bereavement Research*.
Washington, DC: American Psychological Association.
- Prigerson, H.G., Frank, E., Kasl, S. V., Reynolds III, C. F., Anderson, B., Zubenko, G. S., Houck, P. R., George, C. J., & Kupfer, D. J. (1995a). Complicated grief and bereavement-related depression as distinct disorders: Preliminary empirical validation in elderly bereaved spouses. *American Journal of Psychiatry*, *152*, 22-30.
- Prigerson, H.G., Maciejewski, P. K., Reynolds III, C. F., Bierhals, A. J., Newson, J. T., Fasiczka, A., Frank, E., Doman, J., & Miller, M. (1995b). Inventory of Complicated Grief: A scale to measure maladaptive symptoms of loss. *Psychiatry Research*, *59*, 65-79.
- Prigerson, H.G., Shear, M. K., Newsom, J. T., Frank, F., Reynolds III, C. F., Maciejewski, P. K., Houck, P. R., Bierhals, A. J., & Kupfer, D. J. (1996b). Anxiety among widowed elders: Is it distinct from depression and grief? *Anxiety*, *2*, 1-12.
- Prigerson, H.G., Shear, M. K., Jacobs, S. C., Reynolds III, C. F., Maciejewski, P. K., Davidson, J. R. T., et al. (1999). Consensus criteria for traumatic grief: A preliminary empirical test. *British Journal of Psychiatry*, *174*, 67-73.
- Rafael, B., & Martinek, N. (1997). Assessing traumatic bereavement and posttraumatic stress disorder. In J. P. Wilson & T. M. Keane (Eds.) *Assessing psychological trauma and PTSD* (pp. 373-395). New York, NY: Guilford Press.
- Rando, T. A. (1986). *Parental loss of a child*. Champaign, IL: Research Press.
- Regier, D. A., Narrow, W. E., Rae, D. S., Manderscheid, R. W., Locke, B. Z., & Goodwin, F. K. (1993). The de facto mental and addictive disorders service system. Epidemiologic Catchment Area prospective 1-year prevalence rates of disorders and services. *Archives of General Psychiatry*, *50*(2), 85-94.

Remondet, J. H., Hansson, R. O., Rule, B., & Winfrey, G. (1987). Rehearsal for widowhood.

Journal of Social and Clinical Psychology, 5(3), 285-297.

Resnick, H. S., Kilpatrick, D. G., Dansky, B. S., Saunders, B. E., & Best, C. L. (1993).

Prevalence of civilian trauma and posttraumatic stress disorder in a representative national sample of women. *Journal of Consulting and Clinical Psychology, 61*, 984-991.

Revicki, D. A., Brandenburg, N., Matza, L., Hornbrook, M. C., & Feeny, D. (2008). Health-

related quality of life and utilities in primary-care patients with generalized anxiety Rosenbaum disorder. *Qual Life Res, 17*, 1285-94.

Reynolds, C. F. III, Stack, J., & Houle, J. (2011). *Healing Emotions After Loss (HEAL):*

Diagnosis and treatment of complicated grief. Retrieved June 21, 2013, from <http://www.michaeldelollismd.com/knowledge/Grief%20and%20Complicated%20Grief.pdf>

Rosen, R. A. (1986, June). The “especially heinous” aggravating circumstance in capital cases—

The standardless standard. *North Carolina Law Review, 64*, 941-992.

Rosenbaum, A., Rabenhorst, M. M., Reddy, M. K., Fleming, M. T., & Howells, N. L. (2006). A

comparison of methods for collecting self-report data on sensitive topics. *Violence and Victims, 21*, 461-471.

Ruggiero, K. J., Del Ben, K., Scotti, J. R., & Rabalais, A. E. (2003). Psychometric properties of

the PTSD Checklist—Civilian Version. *Journal of Traumatic Stress, 16*, 495-502.

Russell, K. M., Maraj, M. S., Wilson, L. R., Shedd-Steele, R., & Champion, V. L. (2008).

Barriers to recruiting urban African American women into research studies in community settings. *Applied Nursing Research, 21*(2), 90-97.

- Rynearson, E. K. (1984). Bereavement after homicide: A descriptive study. *American Journal of Psychiatry, 141*, 1452-1454.
- Rynearson, E. K. (1990). Pathologic grief: Does it exist and does it need treatment. *Directions in Psychiatry, 10*, 13-19.
- Rynearson, E. K., & McCreery, J. M. (1993). Bereavement after homicide: A synergism of trauma and loss. *American Journal of Psychiatry, 150*, 258-261.
- Sadler, G. R., Lee, H-C, Lim, R. S-H., Fullerton, J. (2010). Recruiting hard-to-reach United States population subgroups via adaptations of snowball sampling strategy. *Nursing Health Sciences, 12*(3), 369-374. doi: 10.1111/j.1442-2018.2010.00541.x
- Sanders, C. M. (1983). Effects of sudden versus chronic illness death on bereavement outcome. *Omega, Journal of Death and Dying, 13*, 227-241.
- Shear, K., Simon, N., Wall, M., Zisook, S., Neimeyer, R., Duan, N., et al. (2011). Complicated grief and related bereavement issues for DSM-5. *Depression and Anxiety, 28*(2), 103-117. doi: 10.1002/da.20780
- Southwick, S. M., Morgan III, A., Nicolaou, A. L., & Charney, D. S. (1997). Consistency of memory for combat-related traumatic events in veterans of Operation Desert Storm. *American Journal of Psychiatry, 154*, 173-176.
- Sprang, M. V., McNeil, J. S., & Wright, R. (1989). Psychological changes after the murder of a significant other. *Social Casework, 70*, 159-164.
- Strength, J. M. (1999). Grieving the loss of a child. *Journal of Psychology and Christianity, 18*(4), 338-353.

- Stuckless, N. (1998). The influence of anger, perceived injustice, revenge, and time on the quality of life of survivor-victims. *Dissertation Abstracts International: Section B: The Sciences and Engineering*, 58, 3971-3999.
- Thompson, M. P. (1996). System influences on post-homicide beliefs and stress. *Dissertation Abstracts International: Section B*, 56, 5228-5309.
- Thompson, M. P., Norris, F. H., & Ruback, R. B. (1996). System influences on post-homicide beliefs and distress. *American Journal of Community Psychology*, 24, 785-809.
- Thompson, M. P., Norris, F. H., & Ruback, R. B. (1998). Comparative distress levels of inner-city family members of homicide victims. *Journal of Traumatic Stress*, 11, 223-242.
- Vandiver, M. (2003). The impact of the death penalty on the families of homicide victims and of condemned prisoners. In J. R. Acker, R. M. Bohm, & C. S. Lanier (Eds.), *America's experiment with capital punishment: Reflections on the past, present, and future of the ultimate penal sanction* (2nd ed, pp. 613-645). Durham, NC: Carolina Academic Press.
- Vollum, S., & Longmire, D. (2007). Covictims of capital murder: Statements of victims' family members and friends made at the time of execution. *Violence and Victims*, 22, 601-619.
- Watters, J. K., & Biernacki, P. (1989). Targeted sampling: Options for studying hidden populations. *Social Problems*, 36, 416-430.
- Weathers, F., Litz, B., Herman, D., Huska, J., & Keane, T. (1993, November). *The PTSD Checklist (PCL): Reliability, validity, and diagnostic utility*. Presentation at the annual meeting of the International Society for Traumatic Stress Studies, San Antonio, TX.
- Weathers, F.W., Litz, B. T., Huska, J. A., & Keane, T. M. (1994). *PTSD Checklist—Civilian version*. Boston: National Center for PTSD, Behavioral Science Division.

- Weber, J. (May 6, 2013). Florida tries to speed up executions as Maryland, other states repeal death penalty. Retrieved 05/06/16 from <http://www.foxnews.com/politics/2013/05/06/florida-tries-to-speed-up-executions-as-maryland-other-states-repeal-death/>.
- Wickie, S. K., & Marwit, S. J. (2000). Assumptive world views and the grief reactions of parents of murdered children. *Omega: Journal of Death and Dying, 42*, 101-113.
- Wyrwich, K. W., Harnam, N., Revicki, D. A., Locklear, J. C., Svedsater, H., & Endicott, J. (2011). Assessment of quality of life enjoyment and satisfaction questionnaire short form responder thresholds in generalized anxiety disorder and bipolar disorder studies. *International Clinical Psychopharmacology, 26*(3), 121-129. doi: 10.1097/YIC.0b013e3283427cd7
- Yonkers, K. A., & Samson, J. A. (2008). Mood disorder measures. In A. J. Rush Jr., M. B. First, & D. Blacker (Eds.), *Handbook of psychiatric measures* (pp. 499-528). Arlington, VA: American Psychiatric Publishing, Inc.
- Zimring, F. E. (2003). *Contradictions of American capital punishment*. New York: Oxford University Press.
- Zisook, S., Chentsova-Dutton, Y., & Shuchter, S. R. (1998). PTSD following bereavement. *Annals of Clinical Psychiatry, 10*, 157-163.
- Zisook, S., Schuchter, S. R., Sledge, P., Paulus, M., & Judd, L. L. (1994). The spectrum of depressive phenomenon after spousal bereavement. *Journal of Clinical Psychiatry, 55*(4), 29-36.